

**COUNTY OF LOS ANGELES
DEPARTMENT OF REGIONAL PLANNING**

PROJECT SUMMARY

- PROJECT DESCRIPTION:** The Los Angeles County 2045 Climate Action Plan (Project) is the County of Los Angeles (County)'s plan for meeting greenhouse gas (GHG) emissions reduction targets for unincorporated Los Angeles County by the years 2030, 2035, and 2045. It was developed with the purpose of implementing the GHG emissions reduction policies of the General Plan and ensuring that the County contributes its share to statewide GHG emissions reductions. The Project was developed as a comprehensive update to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), an implementing component of the General Plan's Air Quality Element. The Project includes revisions to the Air Quality Element to update climate goals, policies, and implementation programs.
- REQUEST:** Approval and adoption of the Project; certification of the Project Final Program Environmental Impact Report; adoption of the Project Mitigation Monitoring and Reporting Program; and adoption of the Project Environmental Findings of Fact and Statement of Overriding Considerations.
- LOCATION:** Countywide (unincorporated areas)
- STAFF CONTACT:** Thuy Hua, 213-974-6461
thua@planning.lacounty.gov
- RPC HEARING DATE:** November 15, 2023

RPC RECOMMENDATION: Approval and recommendation to the Board to consider adoption of the Project and associated environmental documents.

MEMBERS VOTING AYE: Commissioners Hastings, O'Connor, Duarte-White, Louie, Moon

MEMBERS VOTING NAY: None

MEMBERS ABSENT: None

MEMBERS ABSTAINING: None

KEY ISSUES: The Project responds to the recent directives of the Board of Supervisors (Board) regarding climate action, including the *Support the Paris Climate Agreement and Add LA County to We Are Still In Coalition* motion, which also includes a directive for the County to complete a new inventory of the County's GHG emissions, establish future emissions targets, and update the climate action plan.

The Project aligns with statewide goals and related legislation. The Project's reduction targets align with Senate Bill 32 and AB 1279, which set statewide GHG emissions reduction targets for years 2030 and 2045. The Project also aligns with the Advance Clean Cars II Program, which requires all new passenger cars, trucks, and SUVs sold in the state to be zero-emissions by 2035, and Advance Clean Fleets Regulation, which requires manufacturers to sell only zero-emission medium- and heavy-duty vehicles starting in 2036.

MAJOR POINTS FOR: The 2045 CAP is a policy document designed to reduce GHG emissions in unincorporated Los Angeles County. No changes to General Plan land use

designations, zoning, land use, or specific projects are proposed.

The County's previous CAP expired in 2020 and currently does not have an updated CAP to implement GHG emissions reduction projects or provide a GHG analysis streamlining tool for development projects.

The Project includes climate action-related directives from Board motions and projects currently implemented by County departments. As a result, the Project is aligned with several ongoing programs and plans, such as the OurCounty Sustainability Plan. Aligning with plans that have been adopted and implemented can maximize funding opportunities and ensure that GHG emissions reductions are accounted for and contributing to the County's targets.

MAJOR POINTS AGAINST:

Public comments submitted include concerns regarding the reliability of the electric grid; cost of retrofitting existing buildings and constructing carbon-free new development; the County goal to achieve a job density of 300 jobs per acre in high quality transit areas; and increasing the availability of recycled water.

**RESOLUTION
REGIONAL PLANNING COMMISSION
COUNTY OF LOS ANGELES
PROJECT NO. 2019-002015-(1-5)
ADVANCE PLANNING NO. RPPL2019003630
ENVIRONMENTAL ASSESSMENT NO. RPPL2019003635**

WHEREAS, Article 6 of Chapter 3 of Division 1 of Title 7 of the California Government Code ("Government Code") (commencing with section 65350) provides for the adoption of, and amendment to, a county's general plan and elements thereof;

WHEREAS, Government Code section 65358 allows for the amendment of all or part of an adopted general plan and specifies that each amendment may include more than one change to the general plan;

WHEREAS, the Regional Planning Commission ("Commission") of the County of Los Angeles ("County") conducted a duly noticed public hearing on November 15, 2023 on: (1) amendments to the County General Plan Air Quality Element and associated implementation programs; (2) updating the implementing component of the Air Quality Element with the Los Angeles County 2045 Climate Action Plan ("2045 CAP"); and (3) the Final Program Environmental Impact Report ("PEIR") for the 2045 CAP; and

WHEREAS, the Commission finds as follows:

1. The County Board of Supervisors ("Board") adopted the General Plan, pursuant to California Government Code ("Government Code") section 65300 on October 6, 2015;
2. The 2045 CAP was developed as a comprehensive update to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020*, an implementing component of the General Plan Air Quality Element;
3. Air Quality Element goals and policies are proposed to be amended to set the policy framework for the 2045 CAP;
4. General Plan implementation programs for the Air Quality Element are proposed to be amended to remove completed programs, retain ongoing programs, and eliminate redundancies;
5. The 2045 CAP is the County's plan for meeting greenhouse gas (GHG) emissions reduction targets for unincorporated Los Angeles County by the years 2030, 2035, and 2045. Its purposes include implementing the GHG emissions reduction policies

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of the General Plan Air Quality Element and ensuring that the County contributes its fair share to statewide GHG emissions reductions;

6. The objectives of the 2045 CAP are as follows: identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan; identify GHG emissions reduction targets tailored to unincorporated Los Angeles County that closely align with State and County climate goals; provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets; encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan; and demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining process for development projects (serve as a "qualified CAP") via the 2045 CAP CEQA Streamlining Checklist;
7. The 2045 CAP includes the following: GHG emissions inventory for 2018; emissions forecasts for 2030, 2035, and 2045; GHG emissions targets for 2030, 2035, and 2045; suite of GHG emissions reduction strategies, measures, and actions to reduce GHG emissions from major sectors; technical modeling appendix to explain the 2045 CAP's GHG emissions reduction estimates; consideration of environmental justice and equity concerns; implementation and monitoring measures to ensure successful climate action; and a new voluntary CEQA streamlining checklist to allow future projects to streamline GHG emissions analyses pursuant to CEQA;
8. The 2045 CAP would be implemented in unincorporated Los Angeles County;
9. The Air Quality Element, as proposed to be amended, is consistent with all the other elements of the General Plan as required per State law, in that it does not require any significant changes to the other elements of the General Plan, or recommend policies or programs that conflict with goals and policies of other General Plan elements. The Air Quality Element policies, as proposed to be amended, are consistent with other General Plan policies, with particular focus on supporting GHG emissions reductions;
10. In accordance with California Public Resources Code section 21080.3.1 and Government Code section 65352.3, California Native American Tribes traditionally and culturally affiliated with the project area that have requested project notification were notified and invited to request consultation regarding the Project;
11. Five total written responses were received from the following tribes: Coastal Band of the Chumash Nation, Juaneno Band of Mission Indians, Morongo Band of Mission Indians, San Manuel Band of Mission Indians, and San Manuel Band of Mission Indians, Santa Ynez Chumash. The representative of the Coastal Band of the Chumash Nation requested consultation under Government Code section 65352.3, but did not respond to multiple attempts to schedule the consultation meeting. The four other tribes responded that no consultation is requested for the Project. The

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County concluded the consultation process with the Coastal Band of Chumash Indians;

12. A Program Environmental Impact Report (PEIR) for the 2045 CAP was prepared in compliance with the California Environmental Quality Act (CEQA) and County CEQA guidelines. The Project evaluated in the PEIR includes the 2045 CAP, as well as associated updates to the Air Quality Element and General Plan implementation program for the Air Quality Element. The EIR Notice of Preparation was available for public review from January 3, 2022 to February 1, 2022;
13. The 2045 CAP considered for approval reflects the further development and refinement that resulted from public review of Draft 2045 CAP analyzed in the Draft PEIR and the Revised Draft 2045 CAP analyzed in the Recirculated Draft PEIR;
14. Based on comments received on the Draft PEIR circulated between May 25, 2022 to July 18, 2022 and the adoption of Assembly Bill (AB) 1279 during that period, the 2045 CAP was revised to include an additional emissions reduction target for 2045, consistent with AB 1279. A new Alternative 3 that includes the minimum targets needed to “align” with California’s codified statewide targets for 2030 and 2045 was included in a Recirculated Draft PEIR, along with other content to address issues raised by public comments on the Draft PEIR;
15. The Recirculated Draft PEIR was released for a 45-day public review period from March 30, 2023 to May 15, 2023. The Recirculated Draft PEIR concludes that the Project would result in less than significant impacts after applicable mitigation measures to certain impacts within the following environmental resource areas: Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Population and Housing, Transportation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire;
16. The CEQA Findings of Fact provide a complete summary of environmental resource areas that would have less than significant impact with mitigation measures, and environmental resource areas with significant and unavoidable impacts;
17. Certain impacts to Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Noise, and Utilities and Service Systems were determined to be significant and unavoidable, and would require adoption of a Statement of Overriding Considerations prior to project approval;
18. The County prepared the Final PEIR as required by CEQA Guidelines Section 15132, consisting of: the Recirculated Draft PEIR, including revisions; all appendices to the Recirculated Draft PEIR (Appendices A-G), including revisions; comments received on the Recirculated Draft PEIR; a list of persons, organizations, and public agencies commenting on the Recirculated Draft PEIR; County responses to significant

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environmental issues raised in Recirculated Draft PEIR comments; and other information;

19. The Final PEIR presents responses to public comments on significant environmental issues received on the Recirculated Draft PEIR during the March 30, 2023 to May 15, 2023 comment period. A total of 21 correspondences were received in response to the Recirculated Draft PEIR. None of the comments or revisions made to the Recirculated Draft PEIR resulted in “significant new information” as defined by CEQA Guidelines § 15088.5 being added to the EIR. For example, none of the comments or revisions resulted in new significant impacts; resulted in a substantial increase in the severity of an environmental impact identified in the Recirculated Draft PEIR; or brought forth a feasible project alternative or mitigation measure that is considerably different from those set forth in the Recirculated Draft PEIR;
20. The County prepared a Mitigation Monitoring and Reporting Program to monitor implementation of mitigation measures proposed in the Final PEIR, as required by CEQA Guidelines Section 15097;
21. As detailed in the Statement of Overriding Considerations, the Project has economic, legal, social, technological, environmental, and other benefits that outweigh the significant and unavoidable environmental effects as described. The Project will provide benefits to Los Angeles County and the region as follows: Improves Regional Air Quality, Increases Community Resiliency, Promotes Green Jobs, Lowers Energy Costs, Fights Drought, Improves Active Transportation, Improves CEQA Streamlining, Achieves Statewide Climate Goals, Encourages Green Investment, and Promotes Environmental and Social Justice;
22. The Department of Regional Planning conducted outreach for the development of the proposed 2045 CAP and engaged various stakeholder groups, community members, and the youth. The Department engaged in a robust and varied outreach strategy attending events and conducting meetings throughout the planning process. The Department organized and/or attended approximately 71 events and workshops for the 2045 CAP;
23. Pursuant to Section 22.222.180 of the County Code, a public hearing notice was published in the following local and regional newspapers between October 5-13, 2023: Acton/Agua Dulce News, Antelope Valley News, Gardena Valley News, Glendale Independent, La Opinión, Sentinel, Malibu Times, Pasadena Star-News, San Gabriel Valley News, The Acorn, The Argonaut, The Daily Breeze, The Signal, and Whittier Daily;
24. The public hearing notice was sent by email to 612 interested parties who requested Project-related information and registered for departmental contact lists. Materials were also posted on the Department’s website and promoted through social media; and

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25. On November 15, 2023, the Commission conducted a duly-noticed public hearing to consider the 2045 CAP. Nine individuals testified at the hearing (two in-person, seven online) and one person who signed up was unable to provide a testimony due to audio issues. Commissioners Hastings and O'Connor disclosed that they received phone calls from labor and building industry groups prior to the hearing and that the statements made during the calls were consistent with the public comment letters submitted by the groups.

Representatives from the Las Virgenes Homeowners Federation, Endangered Habitats League, Santa Clarita Organization for Planning and the Environment, and an individual testified in support of the approval of the 2045 CAP. A representative of the Acton Town Council expressed concerns with Measure T5 and how it will impact a local intersection and requested an action be added to ban new gas stations. Representatives from the Building Industry Association, BizFed, Rebuild Social Partnership, and an individual requested a one year pause to the project and for the County to conduct an economic analysis of the 2045 CAP. Testimonies from these representatives also included concerns with the performance objective of 300 jobs per acre. comment letters submitted by the groups.

The Commission unanimously voted to recommend to the Board of Supervisors the certification of the Final PEIR, along with the adoption of the required Findings of Fact, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program; and the approval of the Project.

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THEREFORE, BE IT RESOLVED THAT the Regional Planning Commission recommends to the County of Los Angeles Board of Supervisors (Board) as follows:

1. That the Board certify the Final PEIR, Environmental Assessment No. RPPL2019003635, by finding, pursuant to CEQA Guidelines § 15090, that the Final PEIR has been completed in compliance with CEQA; that the Final PEIR was presented to and reviewed and considered by the Board prior to approving the Project; and that the Final PEIR reflects the County's independent judgment and analysis;
2. That the Board adopt the proposed CEQA Findings of Fact, that have been prepared pursuant to Pub. Res. Code §§ 21081 and 21081.5 and CEQA Guidelines 15091;
3. That the Board adopt the proposed Mitigation Monitoring and Reporting Program;
4. That through adopting the proposed Statement of Overriding Considerations prepared pursuant to Pub. Res. Code § 21081(b) and CEQA Guidelines § 15093, the Board determine that the Project's significant and unavoidable impacts are outweighed by specific social, economic, legal, technological, or other considerations;
5. That the Board holds a public hearing to consider adoption of the 2045 CAP and General Plan Air Quality Element and implementation program amendments;
6. That the Board adopt Advance Planning No. RPPL2019003630, amending the General Plan with the updated Air Quality Element and implementation program amendments; adopt the 2045 CAP; and determine that the Air Quality Element, as proposed to be amended, is consistent with and supports the goals and policies of the General Plan.


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I hereby certify that the foregoing resolution was adopted by a majority of the voting members of the Regional Planning Commission on the County of Los Angeles on November 15, 2023.

Elida Luna

Elida Luna, Secretary
County of Los Angeles
Regional Planning Commission

APPROVED AS TO FORM: OFFICE OF THE COUNTY COUNSEL

By  _____
Kathy Park
Deputy County Counsel
Office of the County Counsel
County of Los Angeles

VOTE:

Concurring: Hastings, O'Connor, Duarte-White, Louie, Moon

Dissenting:

Abstaining:

Absent:

Action Date: November 15, 2023

TH:IC
11/27/23



2045 Climate Action Plan

County of Los Angeles

March 2024

FINAL DRAFT-BOS

Prepared By:



LA COUNTY
PLANNING

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LAND ACKNOWLEDGMENT

The County of Los Angeles recognizes that we occupy land originally and still inhabited and cared for by the Tongva, Tataviam, Serrano, Kizh, and Chumash Peoples. We honor and pay respect to their elders and descendants — past, present, and emerging — as they continue their stewardship of these lands and waters. We acknowledge that settler colonization resulted in land seizure, disease, subjugation, slavery, relocation, broken promises, genocide, and multigenerational trauma. This acknowledgment demonstrates our responsibility and commitment to truth, healing, and reconciliation and to elevating the stories, culture, and community of the original inhabitants of Los Angeles County. We are grateful to have the opportunity to live and work on these ancestral lands. We are dedicated to growing and sustaining relationships with Native peoples and local tribal governments, including (in no particular order) the

- Fernandño Tataviam Band of Mission Indians
- Gabrielino Tongva Indians of California Tribal Council
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrieleño Band of Mission Indians – Kizh Nation
- San Manuel Band of Mission Indians
- San Fernando Band of Mission Indians

To learn more about the First Peoples of Los Angeles County, please visit the Los Angeles City/County Native American Indian Commission website at anaic.lacounty.gov.

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- D. Planning Area Profiles**
- E. Implementation Details**
- F. 2045 Climate Action Plan CEQA Streamlining Checklist**
- G. Funding Sources**
- H. 2022 Scoping Plan Recommendations Consistency**

ACRONYMS

| | |
|-------------------|---|
| 2020 CCAP | <i>Unincorporated Los Angeles County Community Climate Action Plan 2020</i> |
| 2022 Scoping Plan | <i>2022 Scoping Plan for Achieving Carbon Neutrality</i> |
| 2045 CAP | <i>2045 Los Angeles County Climate Action Plan</i> |
| AB | Assembly Bill |
| AB 32 | Global Warming Solutions Act |
| AB 118 | Air Quality Improvement Program |
| AB 341 | California Department of Resources Recycling and Recovery 75 percent waste diversion initiative |
| AB 398 | Cap-and-Trade Program |
| AB 1493 | Pavley and Advanced Clean Car Standards |
| AB 1668 | Water Conservation and Drought Planning |
| ACWM | Agricultural Commissioner Weights and Measures Department |
| AEP | California Association of Environmental Professionals |
| AFOLU | Agriculture, Forestry, and Other Land Use |
| AHSC | Affordable Housing and Sustainable Communities Program |

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|-----------------|---|
| AR5 | Intergovernmental Panel on Climate Change Fifth Assessment Report |
| ATP | Active Transportation Program |
| AV | autonomous vehicle |
| AVAQMD | Antelope Valley Air Quality Management District |
| AVL | Automatic Vehicle Locator |
| BAU | business-as-usual |
| BEV | battery electric vehicle |
| BIPOC | Black, Indigenous, and People of Color |
| BPI | Biodegradable Products Institute |
| BUILD | Building Initiative for Low Emissions Development |
| CAA | Clean Air Act |
| CAFE | Corporate Average Fuel Economy |
| Cal. Code Regs. | California Code of Regulations |
| CAL FIRE | California Department of Forestry and Fire Protection |
| CalCAP | California Capital Access Program |
| CALeVIP | California Electric Vehicle Infrastructure Project |
| CALGreen Code | California Green Building Standards Code |
| CalRecycle | California Department of Resources Recycling and Recovery |
| CalSTA | California State Transportation Agency |
| Caltrans | California Department of Transportation |
| CAP | climate action plan |
| CARB | California Air Resources Board |
| CBO | community-based organization |
| CCA | community choice aggregation |
| CCI | California Climate Investments |
| CCS | capture and carbon and sequestration |
| CCUS | carbon capture, utilization, or storage |
| CDFA | California Department of Food and Agriculture |
| CDFW | California Department of Fish and Wildlife |
| CDI | commercial direct install |

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|----------------------------------|---|
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CH ₄ | methane |
| CHP | combined heat and power |
| Climate Vulnerability Assessment | <i>LA County Climate Vulnerability Assessment</i> |
| CNG | compressed natural gas |
| CNRA | California Natural Resources Agency |
| CO ₂ | carbon dioxide |
| CO ₂ e | carbon dioxide equivalent |
| County | County of Los Angeles government |
| Countywide | Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities |
| COVID-19 | SARS-CoV-2 or coronavirus disease 2019 |
| CPA | Clean Power Alliance |
| CPUC | California Public Utilities Commission |
| CRIS | Climate Registry Information System |
| CSO | Chief Sustainability Office |
| CVA | Climate Vulnerability Assessment |
| CVRP | Clean Vehicle Rebate Project |
| DER | distributed energy resource |
| DHS | Department of Health Services |
| DOE | U.S. Department of Energy |
| DPH | Department of Public Health |
| DPR | direct potable reuse |
| DRP | Department of Regional Planning |
| DU | dwelling unit |
| e-bike | electric bicycle |
| ECAA | Energy Conservation Assistance Act |
| EGIA | Electric & Gas Industries Association |

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| EIR | environmental impact report |
| EMFAC2021 | EMission FACtors 2021 |
| EO | Executive Order |
| EO B-55-18 | Achieve Carbon Neutrality Statewide by 2045 |
| EO S-01-07 | Low Carbon Fuel Standards |
| EPA | U.S. Environmental Protection Agency |
| ESAP | Energy Savings Assistance Program |
| EUI | energy use intensity |
| EV | electric vehicle |
| EVCS | electric vehicle charging station |
| EVSE | electric vehicle supply equipment |
| FCEV | fuel cell electric vehicle |
| FHA | Federal Housing Administration |
| Food DROP | Food Donation Recovery and Outreach Program |
| FOD | first order of decay |
| FTA | Federal Transit Administration |
| GGRF | Greenhouse Gas Reduction Fund |
| General Plan | <i>Los Angeles County General Plan 2035</i> |
| GHG | greenhouse gas |
| GPC | Global Protocol for Community-scale GHG Emission Inventories |
| GPCD | gallons per capita per day |
| GW | gigawatt |
| GWP | global warming potential |
| HCD | U.S. Department of Housing and Community Development |
| HERO | Home Energy Renovation Opportunity |
| HFC | hydrofluorocarbon |
| HOME | HOME Investment Partnerships Program |
| HQTA | high quality transit area |
| HUD | U.S. Department of Housing and Urban Development |

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| ICLEI | U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions |
| II | internal-internal |
| IPCC | Intergovernmental Panel on Climate Change |
| IPPU | Industrial Processes and Product Use |
| ISD | Internal Services Department |
| IX | internal-external |
| JWPCP | Joint Water Pollution Control Plant |
| kBtu | one thousand British thermal units |
| kW | kilowatt |
| LACDA | Los Angeles County Development Authority |
| LACSD | Los Angeles County Sanitation Districts |
| LADWP | Los Angeles Department of Water and Power |
| LARC | Los Angeles Regional Collaborative |
| LASD | Los Angeles County Sheriff's Department |
| LED | light-emitting diode |
| LEED | Leadership in Energy and Environmental Design |
| LFG | landfill gas collection |
| LiHEAP | Low Income Home Energy Assistance Program |
| LIWP | Low Income Weatherization Program |
| LNG | liquefied natural gas |
| LTF | Local Transportation Fund |
| MAP-21 | Moving Ahead for Progress in the 21st Century |
| Metro | Los Angeles County Metropolitan Transportation Authority |
| MMTCO ₂ | million metric tons of carbon dioxide |
| MRR | Mandatory Greenhouse Gas Reporting Regulations |
| MSRC | Mobile Source Air Pollution Reduction Review Committee |
| MTCO ₂ e | metric tons of carbon dioxide equivalent |
| MW | megawatt |
| MWD | Metropolitan Water District of Southern California |

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| N ₂ O | nitrous oxide |
| ND | negative declaration |
| NF ₃ | nitrous trifluoride |
| NGV | natural gas vehicle |
| NZEV | near-zero-emission vehicle |
| Offsite Program | Offsite GHG Reduction Program |
| OurCounty Sustainability Plan | <i>OurCounty: Los Angeles Countywide Sustainability Plan</i> |
| PACE | Property Assessed Clean Energy |
| Paris Agreement | 2016 Paris Climate Agreement |
| Parks | Department of Parks & Recreation |
| PEV | plug-in electric vehicle |
| PFC | perfluorocarbon |
| PHEV | plug-in hybrid electric vehicle |
| PM | particulate matter |
| PV | photovoltaic |
| PW | Department of Public Works |
| RGAP | Ridership Growth Action Plan |
| RMP | Refrigerant Management Program |
| RPS | Renewables Portfolio Standard |
| RTP/SCS | Regional Transportation Plan/Sustainable Communities Strategy |
| SB | Senate Bill |
| SB 32 | California Global Warming Solutions Act of 2006 |
| SB 100 | Renewable Portfolio Standards |
| SB 606 | Water Management Planning |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Monitoring District |
| SCE | Southern California Edison |
| SEA | Significant Ecological Area |
| SF ₆ | sulfur hexafluoride |

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|----------|---|
| SGC | Strategic Growth Council |
| SLCP | Short-Lived Climate Pollutant |
| SoCalGas | Southern California Gas Company |
| SoCalREN | Southern California Regional Energy Network |
| solar PV | solar photovoltaic |
| SOV | single-occupancy vehicle |
| SP | service population |
| SWIMS | Los Angeles County Public Works Solid Waste Information Management System |
| SWIS | California Department of Resources Recycling and Recovery's Solid Waste Integrated System |
| TAZ | traffic analysis zone |
| TBD | to be determined |
| TCC | Transformative Climate Communities |
| TDA | Transportation Development Act |
| TDM | transportation demand management |
| TECH | Technology and Equipment for Clean Heating |
| TEP | Transportation Electrification Partnership |
| TIRCP | Transit and Intercity Rail Capital Program |
| Title 24 | California Green Building Standards Code |
| TOD | Transit Oriented District |
| tpd | tons per day |
| TSSP | Traffic Signal Synchronization Program |
| USD | U.S. dollars |
| USDA | U.S. Department of Agriculture |
| U.S. EPA | U.S. Environmental Protection Agency |
| VMT | vehicle miles traveled |
| WDACS | County Workforce Development, Aging and Community Services |
| WUI | wildland urban interface |
| XI | external-internal |

| | |
|-----|-----------------------|
| XX | external-external |
| ZEV | zero-emission vehicle |
| ZNE | Zero Net Energy |

GLOSSARY

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| AB 1668 | A legislative standard enacted in 2018 to guide water conservation and use efficiency for indoor and outdoor uses. |
| AB 1279 | The California Climate Crisis Act. This statute codified Executive Order B-55-18's 2045 carbon neutrality target and established an additional GHG emissions target to reduce anthropogenic emissions 85 percent below 1990 levels by 2045. |
| AB 1398 | A statute that extended the state's Cap-and-Trade Program through 2030. A key strategy for reducing GHG emissions in California, the Cap-and-Trade Program sets total allowable emissions for facilities and creates carbon offset credits through carbon sequestration projects. |
| AB 32 | The Global Warming Solutions Act. This statute codified Executive Order S-3-05 and authorized the California Air Resources Board to implement a comprehensive, multiyear program to reduce GHG emissions from all sources throughout the state. |
| Active transportation | A mode of transportation that includes walking, running, biking, scootering, skateboarding, and other human-powered forms of transportation. It can also include low-speed electrical devices such as motorized wheelchairs, e-scooters, and electric-assist bicycles. |

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| Adaptation | The effort to adjust practices and development in response to climate change to lessen future impacts. |
| Anaerobic digestion | A process by which organic matter, such as food waste or sewage, is broken down in the absence of oxygen to produce biogas and biofertilizer. |
| Biodiversity | The variety and variability of flora, fauna, and ecosystems. Biodiversity can be observed on macro levels, micro levels, and in between. Biodiversity is complex, fragile, and increasingly threatened by urbanization and climate change. Rich biodiversity supports many aspects of human life, from food and medicine to environmental quality. |
| Biodegradable Products Institute (BPI) certification | A certification for environmentally friendly products that meet high-quality compostable standards, and are proven to compost without toxic or lingering plastic residues. |
| Biogas | A type of gas, composed primarily of methane, derived from the process of bacterial decomposition of sewage, manure, food, plant crops, or other organic waste products. |
| Biogenic CO ₂ | Carbon emissions released through the combustion or decomposition of natural and organic sources (i.e., trees, soil, wood). |
| Biomass conversion | Thermal conversion of organic materials such as wood waste, lawn clippings, agricultural waste, and nonrecyclable paper, when separated from other waste. |
| Building decarbonization | The process of creating buildings that contribute zero GHG emissions. For example, a newly constructed building can incorporate reused, recycled, and other low-carbon-intensity materials. Operationally, the building is energy efficient and uses renewable, zero-carbon energy sources for heating, cooling, and power. |
| Carbon dioxide (CO ₂) | A GHG made up of one carbon atom and two oxygen atoms that is released primarily through the burning of fossil fuels, other hydrocarbons, solid waste, and trees and wood products. Changes in land use also play a have an impact. Deforestation and soil degradation add carbon dioxide to the atmosphere, while forest regrowth takes it out of the atmosphere. While carbon dioxide is naturally occurring, the proportion of carbon dioxide in our atmosphere is increasing as a result of human activities. Increasing concentration levels of carbon dioxide and other GHGs contribute to climate change. |

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| Carbon efficient | Contributing fewer carbon emissions compared to a conventional process while still providing the same service. A building, machine, or process is carbon efficient if it can deliver more functions or services for the same amount of carbon emissions, or the same function or service for fewer carbon emissions, compared to a conventional alternative. |
| Carbon neutral | A system or jurisdiction that has net zero GHG emissions, meaning that GHG emissions generated by sources such as transportation, power plants, and industrial processes are less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration. Strategies to achieve carbon neutrality include renewable energy supply, efficient buildings, low-carbon transportation, sustainable materials choices, and deep retrofits to existing buildings and infrastructure. Carbon neutrality may require carbon sequestration technologies to capture the remainder of GHG emissions. |
| Car share | An integrated network of passenger vehicles available for short-term rental. Car share can take the form of return systems in which a vehicle must be returned to the parking space from which it was rented. Alternatively, it can take the form of point-to-point systems in which the car can be returned to another space or left anywhere within a predetermined geographic zone. |
| Chargeback | A usage fee for electric vehicle chargers. |
| Clean manufacturing | Manufacturing processes that minimize waste and pollution production and limit or eliminate the use of toxic chemicals. |
| Clean Power Alliance (CPA) | A nonprofit community choice energy program now serving 32 jurisdictions across Los Angeles and Ventura counties. The CPA offers participants the option to increase their share of renewable energy, offering three tiers of electric service: Lean Energy at 36 percent renewable, Clean Energy at 50 percent renewable, and 100 percent Renewable. |
| Climate vulnerability assessment | An analysis of the extent to which a species, habitat, ecosystem, or civilization is susceptible to harm from climate change impacts. Vulnerability assessments are an integral component of climate adaptation planning. |
| Cogeneration facility | An energy plant that recovers waste heat from conventional power generation to produce thermal energy. Also called a <i>combined heat and power (CHP) system</i> . |

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| Community shared solar facilities | Solar photovoltaic (PV) systems that generate and supply electricity to multiple customers within a specific geographic area. Participants typically make payments to reserve a portion of a solar system or the rights to a portion of its output. As the system generates electricity, all participants receive credits on their energy bill. |
| Compost | The product, rich in nutrients, that results from the decomposition of organic material. Material used to make compost includes landscape trimmings, agricultural crop residues, paper pulp, food scrap, wood chips, manure, and biosolids. These are typically referred to as <i>feedstock</i> . |
| Cool pavement | A type of paving material that reflects more solar energy, enhances water evaporation, or has been otherwise modified to remain cooler than conventional pavements. Cool pavements include a range of established and emerging technologies that communities are exploring as part of their heat island reduction efforts. |
| Decarbonization | Reduction in the carbon intensity and GHG emissions of a system or sector, such as buildings or transportation. |
| Disadvantaged communities | The areas that suffer most from a combination of economic, health, and environmental burdens as defined by the California Office of Environmental Health Hazard Assessment. These burdens typically include poverty, unemployment, health conditions, air and water pollution, and hazardous waste. |
| Distributed energy resources (DERs) | Decentralized sources of energy that are smaller than utility-scale energy sources and can be aggregated to provide the power necessary to meet regular demand. |
| Economic opportunity | The potential of someone to realize economic success. Similar to economic mobility, economic opportunity can be influenced by many factors, such as where one lives and goes to school or the availability of jobs. |
| Ecosystem services | The benefits and services (i.e., water purification, nutrient cycling, raw materials availability, pollination) provided to people directly or indirectly by ecosystems, wildlife, and natural systems. |
| E-scooters/electric scooters | Scooters with an electric motor that assist with user mobility. See also <i>micromobility</i> . |

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| Electric vehicles (EVs) | An umbrella term to describe a variety of vehicle types that use electricity as their primary fuel source for propulsion or as a means to improve the efficiency of conventional internal combustion engine. These generally include battery electric vehicles, plug-in hybrid electric vehicles, and fuel cell electric vehicles. |
| Embodied carbon | The GHG emissions that result from the manufacturing, processing, transportation, installation, maintenance, and disposal of building materials. |
| Energy efficiency | The use of less energy to provide the same service. A process, building, machine, or other energy-consuming object is more energy efficient if it delivers more functions or services for the same energy input, or the same function or service for less energy input, than a conventional process. |
| Energy retrofit | Major changes to the structure or systems of an existing building for the purpose of achieving significant reductions in energy consumption (and operational costs) with the use of more efficient technologies, products, and designs. Energy retrofits may also reduce water consumption and improve occupant amenities. |
| Energy storage system | Technologies that collect generated energy so that it may be used at another time. Energy storage includes both electric systems such as batteries and thermal systems such as hot and cold water storage tanks. Energy storage can enhance the technical and economic viability of a distributed generation system and can operate critical systems during grid outages or in the case of emergency. |
| Energy use intensity (EUI) | The amount of energy consumed by a building over a period of time and normalized by another factor, such as per square foot or per person. EUI is most often represented as total energy consumption of one building in one year (typically presented in thousand British thermal units [kBtu]) divided by the total gross floor area of the building. These factors allow for the comparison of building performance across buildings of different types and sizes. See also <i>kBtu</i> . |
| Environmental justice | As defined by Government Code Section 65040.12(e), “the fair treatment of people of all races, cultures and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations, and policies. |
| Equity | An end state in which all groups have access to the resources and opportunities necessary to improve the quality of their lives. |

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| Executive Order B-30-15 | An executive order that established a GHG emissions reduction target of 40 percent below 1990 levels by 2030. |
| Executive Order B-55-18 | An executive order by then-Governor Edmund G. Brown Jr. that set a goal to bring California to carbon neutrality by 2045, five years before the Paris Climate Agreement deadline. |
| Executive Order S-3-05 | An executive order that established the state's first GHG emissions reductions targets: reduction to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. |
| First/last mile | The beginning or end of an individual's trip on transit. Strategies may include bike lanes, bike parking, bike share, sidewalks, and crosswalks, bike share, signage, and wayfinding (e.g., information kiosks and mobile apps). |
| Fossil fuels | Hydrocarbon fuels formed by natural processes such as the anaerobic decomposition of organic matter. This process is time-intensive and fossil fuels are regenerated on the order of magnitude of millions of years. Typical fossil fuels include coal, oil, and natural gas. |
| Frontline communities | Marginalized groups of people who have historically experienced a disproportionately high share of environmental impacts, while not necessarily equally benefiting from policies to address the environmental effects. People of color and those earning low incomes tend to be most vulnerable to climate change, yet they tend to have fewer resources to prevent, adapt, or recover from climate disasters. |
| Gigawatt (GW) | A unit of electric power equal to 1,000 megawatts (MW) or one billion watts. |
| Global Warming Solutions Act (AB 32) | A law enacted by the State of California in 2006 that established a statewide goal to address climate change by reducing GHG emissions to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. |
| Green chemistry | The design of chemical products or processes that reduce or eliminate the generation of hazardous substances. |
| Green infrastructure | A method for naturally managing rain and floodwaters. Green infrastructure reduces and treats stormwater runoff while also improving the local environment by mimicking natural processes. Green infrastructure includes strategies such as green roofs, bioswales, and permeable pavements. |

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| Greenhouse gas (GHG) emissions | Gases that trap heat in the atmosphere by absorbing and emitting solar radiation within the atmosphere, causing a greenhouse effect that warms the atmosphere and leads to global climate change. The main GHGs are water vapor, carbon dioxide, methane, nitrous oxide, and ozone. |
| Gray water | Wastewater generated in homes and offices that is sourced from baths, sinks, washing machines, or kitchen appliances. Gray water may contain amounts of dirt, food, grease, or cleaning products, but does not have fecal contamination. |
| Global warming potential (GWP) | The cumulative radiative forcing, both direct and indirect effects, over a specified time horizon resulting from the emission of a unit mass of gas related to carbon dioxide. |
| Habitat connectivity | The degree to which patches of land used as habitat by local plants and animals are connected to each other. Habitat connectivity ensures that species are able to move around freely to mate, hunt, forage, or reproduce. Habitat connectivity also allows species the ability to migrate to preferable areas in case of habitat loss or climate event, avoiding habitat fragmentation. |
| Habitat linkages | An area of land that poses sufficient cover, food, forage, water, or other essential elements to serve as a movement pathway for species between two or more areas of habitat. |
| Heat island effect | Measurable elevated temperatures in developed areas, as compared to more rural surroundings. Temperatures in developed areas are affected by absorption of heat by hardscapes and radiation of heat into surrounding areas, resulting in local climate changes. Heat islands are influenced by geographic location and by local weather patterns, with effects changing on a daily or seasonal basis. |
| High-frequency transit | Transit that has reliable, high-frequency service, often with service every 15 minutes or less. |
| High-global-warming-potential (high-GWP) refrigerants | Potent GHGs with high global warming potential (i.e., hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) that result in greater emissions from an individual unit relative to carbon dioxide. |
| High quality transit area (HQTA) | Generally, a walkable transit area that is consistent with the adopted Regional Transportation Plan and is within one half-mile of a well-serviced transit stop or a transit corridor providing service frequency of every 15 minutes or less during peak commute hours. |

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| Intergovernmental Panel on Climate Change (IPCC) | A United Nations body that evaluates current impacts and future risks of a changing climate. The IPCC prepares comprehensive scientific reports on climate change and provides technical and policy-relevant guidelines for reducing the rate at which climate change occurs. |
| Impermeable areas | Solid surfaces, such as paved roads and parking lots, that do not allow water to penetrate into the ground below. |
| kBtu | One thousand British thermal units. Often used to calculate the energy use intensity per square foot of buildings. |
| Life-cycle carbon intensity | The overall GHG emissions associated with all stages of the life cycle of a commercial product, process, or service, including each stage of its production and use. For instance, in the case of a manufactured product, GHG emissions from raw-material extraction and processing (cradle), through the product's manufacture, distribution, and use, to the recycling or final disposal of the materials composing it (grave) are part of the product's life-cycle carbon intensity. |
| Light-duty vehicle | A passenger vehicle with a maximum gross vehicle weight rating of 8,500 pounds. |
| Medium-duty vehicle | A passenger vehicle with a maximum gross vehicle weight rating from 8,501 to 10,000 pounds. |
| Methane (CH ₄) | A gas made up of one carbon atom and four hydrogen atoms. Methane is the main component of natural gas, commonly used as a fuel for heating. Methane is released during the production and distribution of natural gas, but also through livestock and other agricultural practices and by the decay of organic waste in landfills. Like carbon dioxide, methane is a GHG and exacerbates climate change. However, methane has a much higher global warming potential than carbon dioxide, meaning that methane has a much larger effect than the same amount of carbon dioxide. |
| Microgrid | An electrical distribution network that is connected to two or more buildings in a local area that can enter into "island mode" (i.e., operates in isolation from the central or local electricity distribution network) and provide power to buildings without using the central grid. |
| Micromobility | Transportation options that include personal vehicles meant to carry one or two passengers such as bicycles, small electric cars, or scooters. |

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| Micro transit | Public or private multi-passenger transportation services that serve passengers using dynamically generated routes; they provide transit-like service on a smaller, more flexible scale. |
| Mode | A particular form of travel such as walking, traveling by automobile, traveling by bus, or traveling by train. |
| Native population | The indigenous inhabitants who have lived or currently live in the geographic area within the current boundaries of Los Angeles County before and after the arrival of Europeans. |
| Natural forests | Native trees and related vegetation in natural land areas where there are no clearly visible indications of human activities and where the ecological processes are not significantly disturbed. |
| Natural gas | A non-renewable hydrocarbon consisting largely of methane, a potent greenhouse gas. See also <i>fossil fuels</i> . |
| Near-zero-emission vehicle (NZEV) | Plug-in hybrid electric vehicles powered by both an internal combustion and battery-electric power train that are capable of operating like a zero-emission vehicle for some distances. NZEVs are considered a bridge technology that will help the development of the full zero-emission vehicle market. |
| Negative-carbon concrete | A process where carbon is captured during the production of concrete and then emitted over time during the concrete's lifetime, resulting in a carbon-negative effect. |
| Net Zero Carbon | A system, process, building, or community that mitigates any GHG emissions associated with its resource use or does not use energy sources that contribute to GHG emissions. |
| Net Zero Waste | A system, process, building, or community that sends no waste to landfills by reducing consumption and maximizing recycling and composting. |
| Net Zero Water | A system, process, building, or community that reduces water consumption and does not rely on off-site water sources to meet any of its water demand. Instead, alternative on-site sources such as rainwater collection or wastewater treatment and reuse are used. |
| Non-biogenic CO ₂ | Carbon emissions from the combustion of fossil fuels. |
| Ordinance | A piece of legislation enacted by a municipal authority. |

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| Organic waste | Biodegradable waste containing materials from living organisms. Organic waste may include food waste, green waste, landscaping and pruning waste, nonhazardous wood waste, or food-soiled paper waste that is mixed in with food waste. Organic waste can be processed through composting or anaerobic digestion. |
| OurCounty Sustainability Plan | A regional sustainability plan for the 88 cities and unincorporated areas of Los Angeles County. The OurCounty Sustainability Plan does not supersede the General Plan, but adds to LA County’s strategic framework for addressing climate change. |
| Paris Climate Agreement | A global action plan to avoid the catastrophic impacts of climate change. Adopted in December 2015, the Paris Agreement formalized world leaders’ efforts to limit the global average temperature increase to 1.5 degrees Celsius above preindustrial levels. The agreement urged national leaders to join forces with states and local governments to commit to net-zero carbon emissions by 2050. |
| Particulate matter (PM) | A combination of solid and liquid droplets found in the air. Particulate matter can include dust, dirt, soot, or smoke. Some PM is large enough to be seen, but other types are microscopic (fine particulate matter). Fine particulate matter can travel deeply into the human respiratory tract and can cause health effects such as throat irritation, coughing, or asthma. |
| Precipitation whiplash | A condition under which the region is likely to experience drier periods than historically experienced followed by much wetter periods with more extreme rain events, which can lead to increased water scarcity, mudslides, and flooding. |
| Public-private partnership | A collaborative arrangement between public agencies and private-sector companies. These partnerships allow large-scale government projects to be completed with private funding, where the private entities are able to receive operating profits. |
| Plug-in electric vehicle (PEV) | A vehicle that can be recharged from an external source of electricity, such as a wall socket, and that stores this electricity in rechargeable battery packs that power the vehicle’s motion. |
| Reach code | A local building energy code that “reaches” beyond the state’s minimum requirements for energy use in building design and construction. |
| Regenerative agricultural practices | A holistic land management and agriculture practice that reverses the effects of climate change through rebuilding soil organic matter and restoring degraded soil biodiversity. Practices that support regenerative agriculture include well-managed grazing, the use of compost, or minimal tillage. |

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| Renewable energy | Energy coming from resources that are naturally replenished on a human time scale, such as sunlight, wind, tides, waves, bioenergy, hydrogen, and geothermal. |
| Residual emissions | The emissions remaining after all technically and economically feasible opportunities to reduce emissions in all covered scopes and sectors have been implemented. |
| Resilience | The capacity to survive, adapt, and thrive in the face of chronic stresses and acute shocks and to even transform as conditions require. See also <i>shocks and stresses</i> . |
| Resilience hubs | As defined by the Urban Sustainability Directors Network, “community-serving facilities augmented to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life. Hubs provide an opportunity to effectively work at the nexus of community resilience, emergency management, climate change mitigation, and social equity while providing opportunities for communities to become more self-determining, socially connected, and successful before, during, and after disruptions.” |
| SB 32 | A statute that codified a target to reduce California’s 2030 emissions by 40 percent below 1990 levels. |
| SB 535 | A statute requiring that 25 percent of all funds allocated pursuant to an investment plan for the use of state monies collected through a cap-and-trade program be allocated to projects that benefit disadvantaged communities, and that at least 10 percent of these be spent on projects located in disadvantaged communities. |
| SB 606 | A statute for water management planning that established water efficiency regulations and reporting requirements, and requires setting urban water use objectives. |
| Shocks and stresses | <p><i>Shocks</i>: Sudden events that threaten or affect the community’s immediate well-being. These can include earthquakes, fires, landslides, public health emergencies, civil unrest, terrorism, chemical emergencies, financial crises, extreme heat, flooding, infrastructure outages or disruptions, or building failures.</p> <p><i>Stresses</i>: Longer term, chronic challenges that weaken natural, built, and economic or human resources. These can include inequity, disparities in employment, health and education, crime and violence, homelessness, economic recession, lack of affordable housing, food insecurity, climate change, air pollution, and the heat island effect.</p> |

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| Significant Ecological Areas (SEAs) | Land identified as holding important biological resources representing the wide-ranging biodiversity of Los Angeles County, based on the criteria for SEA designation established by the General Plan and as mapped in the adopted SEA Policy Map. |
| Single-occupancy vehicle (SOV) trips | Trips in privately operated vehicles that contain only one occupant. |
| Source separation | The proper separation of different waste streams for waste collection and treatment; for instance, properly separating and discarding of paper recycling from organic waste. |
| Sunset strategy | A strategy to manage declining industries, such as the oil and gas industry, and phase them out. |
| Sustainability | Meeting the needs of the present without compromising the ability of future generations to meet their own needs. |
| Transit-Oriented District (TOD) | A planning strategy that explicitly links land use and transportation by focusing mixed uses, mixed housing, employment, and commercial growth around bus and rail stations (approximately one-quarter to one-half mile radius of a significant transit facility station). TODs can reduce the number and length of vehicle trips by encouraging more bicycle/pedestrian and transit use and can support transit investments by creating the density around stations to boost ridership. |
| Transportation demand management (TDM) | Strategies to change travel behavior in an effort to reduce traffic congestion, increase safety and mobility, conserve energy, and reduce GHG emissions. These strategies are intended to reduce the demand for roadway travel and increase the overall efficiency of a local or regional transportation system. Strategies may include ridesharing, telecommuting, park-and-ride programs, pedestrian improvements, and alternative work schedules. |
| Unincorporated areas | Areas that are not within the boundaries of a city. More than 65 percent of Los Angeles County (2,654 square miles) is unincorporated. For the population of over 1 million people living in these areas, the LA County Board of Supervisors acts as their city council and the supervisor representing a specific area acts as the city mayor. County departments provide the municipal services for these areas. There are approximately 120–125 unincorporated areas in Los Angeles County. |
| Urban agriculture | Agriculture practices in urban areas that take the form of front-yard, backyard, rooftop, or balcony gardening; community gardening in vacant lots or parks; or roadside agriculture and livestock grazing in available open space. |

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| Urban forests | Trees and related vegetation in urban and near-urban areas, including but not limited to street trees, park trees, residential trees, and other trees on other public or private properties. |
| Urban heat island effect | A phenomenon in urban cities created by dense concentrations of heat-absorbing surfaces (i.e., dark pavements, roofs, buildings) and lack of vegetation surfaces that results in heat retention and contributes to global warming |
| Vehicle miles traveled (VMT) | A measurement of miles traveled by vehicles within a specified region for a specified time period. |
| Vision Zero | The commitment to eliminate traffic-related deaths and severe injuries by a certain date. |
| Vulnerable populations | The population of Los Angeles County including older adults, people with disabilities, children, people of color, and people with chronic medical conditions who are at elevated risk of climate change impacts such as extreme heat, fire, and flooding. These communities typically lack the resources to protect themselves from climate events or recover quickly from damage or illness. |
| Waste diversion | The process of managing a waste stream such that waste products do not end up in landfills. Waste can be diverted through strategies such as reuse, recycling, composting, or anaerobic digestion. |
| Waste generation | The total amount of waste created within a jurisdiction (or by a business or residence), both that which is disposed and that which is diverted. |
| Watershed | An area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. |
| Weatherization | The modification of a building to reduce energy consumption and optimize energy efficiency by protecting the interior of a building from environmental elements such as sunlight, precipitation, wind, and temperature. |
| Working lands | Farms, ranches, forests, other extractive land uses, and managed natural areas that support economic activity and land-based livelihoods. These areas supply life-sustaining resources including clean water, air, and food. |
| Zero-emission vehicles (ZEVs) | Vehicles that produce no tailpipe emissions. Generally, ZEVs feature electric powertrains. Technically, ZEVs are still responsible for some GHG emissions, if the GHG content from the electricity generation comes from fossil fuel sources. |

Zero net energy (ZNE) building

As defined by the U.S. Department of Energy, “An energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy.”

EXECUTIVE SUMMARY

The County of Los Angeles (County) acknowledges the well-established consensus that human activity, especially the combustion of fossil fuels since the beginning of industrialization, is the primary cause of the climate crisis. Now more than ever, climate change has become a real, urgent, and significant threat, with impacts being felt today in Los Angeles County and around the globe. Climate change has already inflicted harm on Los Angeles County residents, especially its most vulnerable, and has the strong potential to negatively affect the safety, public health, economy, and quality of life of future generations. On September 4, 2018, the County Board of Supervisors adopted a motion supporting the 2016 Paris Climate Agreement (Paris Agreement) and added the County to the *We Are Still In* Declaration. By this action, the County is committed to adapting its programs and services to reduce unincorporated Los Angeles County's greenhouse gas (GHG) emissions and help limit global temperature increases.

This *2045 Los Angeles County Climate Action Plan* (2045 CAP) is the County's path toward meeting the goals of the Paris Agreement and achieving carbon neutrality for unincorporated Los Angeles County. The 2045 CAP builds on previous climate action work from the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), adopted in October 2015 as a subcomponent of the Air Quality Element of the *Los Angeles County General Plan 2035* (General Plan). The 2045 CAP identifies strategies, measures, and actions to mitigate GHG emissions from community activities, which may include some municipal operations; however, municipal operations are not the focus of this plan.

Actions to reduce GHG emissions provide multiple co-benefits for residents, employees, and employers. These benefits have not always reached disadvantaged communities. For example, residents of affordable housing and multifamily housing have not been well served by local renewable energy programs, such as rooftop solar, leading to cycles of disinvestment and potentially higher

energy bills. Concurrently, many of these same residents are already extremely rent and utility burdened, and the COVID-19 pandemic has exacerbated these problems. The lack of housing and high cost of living in the region mean that increased household expenses could trigger displacement. New and innovative approaches are needed to bring the benefits of renewable energy to all residents while protecting and increasing affordable housing. The 2045 CAP attempts to address these issues to reduce GHG emissions while encouraging the development of affordable and equitable housing.

Since the adoption of the 2020 CCAP, local, state, and international leaders have established new targets for carbon reductions that seek deep and long-term transformations in emissions-generating sectors. In 2016, global leaders signed the Paris Agreement, a plan to limit the global average temperature increase to 1.5 degrees Celsius above pre-industrial levels. In 2016, then-California Governor Jerry Brown signed Senate Bill (SB) 32, which established a 2030 target to reduce GHG emissions by 40 percent below 1990 levels. In 2018, Governor Brown issued Executive Order (EO) B-55-18, which established a new statewide goal to reach carbon neutrality by 2045 and achieve and maintain net negative emissions thereafter. In September 2022, Governor Gavin Newsom signed Assembly Bill (AB) 1279, which codified EO B-55-18 by requiring that the State achieve net zero GHG emissions no later than 2045. AB 1279 also requires the state to reduce direct anthropogenic GHG emissions 85 percent below 1990 levels by 2045. On December 15, 2022, the California Air Resources Board adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), which lays out a path to achieve the statewide goals codified in AB 1279.

The objectives of the 2045 CAP are as follows:

1. Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
2. Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
3. Provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets.
4. Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
5. Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide California Environmental Quality Act (CEQA) streamlining for development projects (serve as a "qualified CAP") via the 2045 Climate Action Plan CEQA Streamlining Checklist (2045 CAP Checklist).

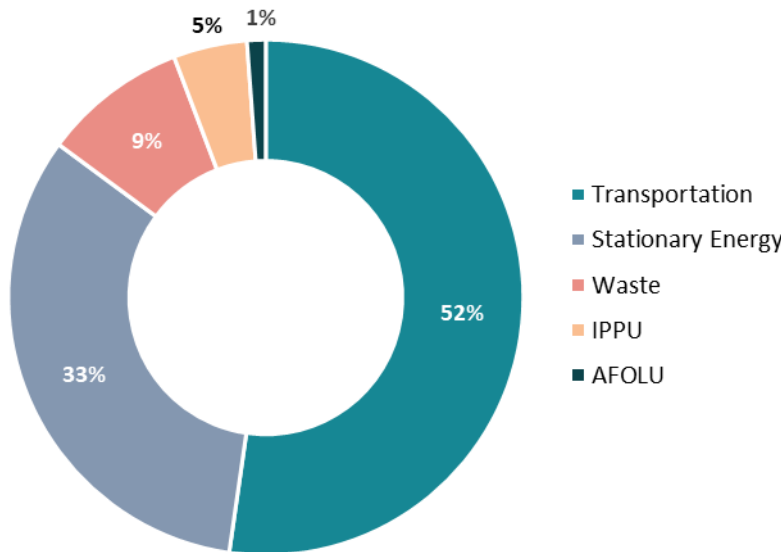
The 2045 CAP is an update to the 2020 CCAP, and it sets new GHG emissions reduction targets beyond the 2020 timeframe that are consistent with state goals pursuant to SB 32, AB 1279, and the 2022 Scoping Plan. The 2045 CAP includes the following elements:

- A GHG emissions inventory from communitywide activities in unincorporated Los Angeles County in 2018, along with a baseline inventory for 2015.
- Projections of future emissions for 2030, 2035, and 2045.
- GHG emissions reduction targets for 2030, 2035, and 2045.
- A long-term aspirational goal for carbon neutrality by 2045.

- Climate strategies, measures, and actions to reduce GHG emissions from major sectors.
- Technical modeling appendix to explain the GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- Implementation and monitoring measures to ensure successful climate action.
- A new development review checklist to allow future projects to streamline GHG emissions analyses pursuant to the California Environmental Quality Act (CEQA).

Greenhouse Gas Emissions in Unincorporated Los Angeles County

Estimated GHG emissions generated by community activities in unincorporated Los Angeles County in 2018 (the most recent inventory completed) were approximately 5.2 million metric tons of carbon dioxide equivalent (MTCO₂e). The largest contributor to these emissions (at 52 percent) is the transportation sector, which consists mostly of on-road vehicles. The second-largest contributor (at 33 percent) is the stationary energy sector, which includes emissions from electricity generation facilities, landfill-to-gas facilities, district energy systems, and the use of natural gas use in buildings. It also includes emissions from fossil fuel extraction and fugitive emissions from oil and natural gas systems. Together, these two sectors constitute approximately 85 percent of all community-scale GHG emissions in unincorporated Los Angeles County. The remaining sources are waste and wastewater generation (9 percent), industrial processes and product use (5 percent), and the agriculture, forestry, and other land use (AFOLU) sector (1 percent). **Figure ES-1** shows a breakdown by sector of 2018 communitywide GHG emissions for unincorporated Los Angeles County.



Abbreviations: AFOLU = agriculture, forestry, and other land use; IPPU = industrial processes and product use

Figure ES-1: 2018 Greenhouse Gas Emissions Inventory for Unincorporated Los Angeles County, by Sector

CAP Strategies to Reduce Greenhouse Gas Emissions

Achieving carbon neutrality will require ambitious climate actions that address GHG emissions from all sectors and sources. To reduce emissions across all sectors, the 2045 CAP establishes three GHG emissions reduction targets and one long-term aspirational goal:

- *Target:* By 2030, reduce GHG emissions by 40 percent below 2015 levels.
- *Target:* By 2035, reduce GHG emissions by 50 percent below 2015 levels.
- *Target:* By 2045, reduce GHG emissions by 83 percent below 2015 levels.
- *Aspirational Goal:* By 2045, achieve carbon neutrality in unincorporated Los Angeles County.

The 2045 CAP includes 10 strategies and 25 measures that, when combined, achieve all three of the GHG emissions reduction targets for 2030, 2035, and 2045. These strategies, measures, and actions also put unincorporated Los Angeles County on an aggressive path toward carbon neutrality and are estimated to reduce annual emissions by more than 1.5 million MTCO_{2e} in 2030, more than 2 million MTCO_{2e} in 2035, and nearly 3 million MTCO_{2e} in 2045. All strategies require that the County employ climate leadership and lead by example, recognizing the County's important role as a convener and leader in the region. Reaching the targets and goals of the 2045 CAP requires regional collaboration and partnerships with various stakeholders, including communities, local governments, and the State of California. The County will continue to foster these partnerships to move toward a low-carbon future.

Energy Supply

The source of energy used in unincorporated Los Angeles County is essential to the County's goal to reduce GHG emissions associated with energy supply and consumption. This strategy includes a range of measures aimed at decarbonizing the energy used in buildings and energy industries. The approach combines decarbonizing the energy supply, generating energy on-site through renewables, and utilizing load management and peak reductions. The County's participation in the Clean Power Alliance, and its commitment to sourcing 100 percent renewable energy for its electricity supply by 2025, will enable this shift and ensure a low-carbon energy future.



Energy Supply Strategy

- Decarbonize the energy supply.

Transportation

The transportation sector makes up 52 percent of communitywide GHG emissions. Transportation strategies emphasize and promote alternatives to single-occupancy trips, including public transit, active transportation such as biking and walking, and land use planning that better connects housing to jobs and services. Transportation strategies also include the transition to zero-emission vehicles throughout unincorporated Los Angeles County. The success of the transportation strategies will rely on the availability of low-carbon electricity as a fuel source, including expanded electric vehicle infrastructure, as well as the adoption and expansion of zero-emission technologies.



Transportation Strategies

- Increase densities and diversity of land uses near transit.
- Reduce single-occupancy vehicle trips.
- Institutionalize low-carbon transportation.

Building Energy and Water

Buildings are a major source of emissions because of their heating, cooling, and power needs. Efforts to decarbonize building energy use will require a mix of energy efficiency programs and a shift to carbon-free alternatives for fossil fuel appliances.



Building Energy and Water Strategies

- Decarbonize buildings.
- Improve efficiency of existing building energy use.
- Conserve water.

Waste

The County is committed to a sustainable waste future. Creating this future will require programs that both support stakeholder engagement and education and develop the necessary infrastructure to support zero-waste goals. Strategies in the 2045 CAP expand efforts to reduce and reuse waste at the source and divert waste from landfills through participation in recycling programs, and by converting organic waste, which is responsible for the majority of the waste sector's emissions, to compost and fertilizers.

Waste Strategy

- Minimize waste and recover energy and materials from the waste stream.



Agriculture, Forestry, and Other Land Use

The AFOLU sector's strategies focus on conservation and restoration of existing forest lands and urban forests to sequester carbon and support local ecosystems. These strategies promote clean water, air, and food, in addition to a reduced urban heat island effect. Preserving and supporting unincorporated Los Angeles County's forests, parks, and working lands is essential to reducing climate change impacts and protecting the communities, economies, and ecosystems that depend on the land.

Agriculture, Forestry, and Other Land Use Strategies

- Conserve and connect wildlands and working lands.
- Sequester carbon and implement sustainable agriculture.

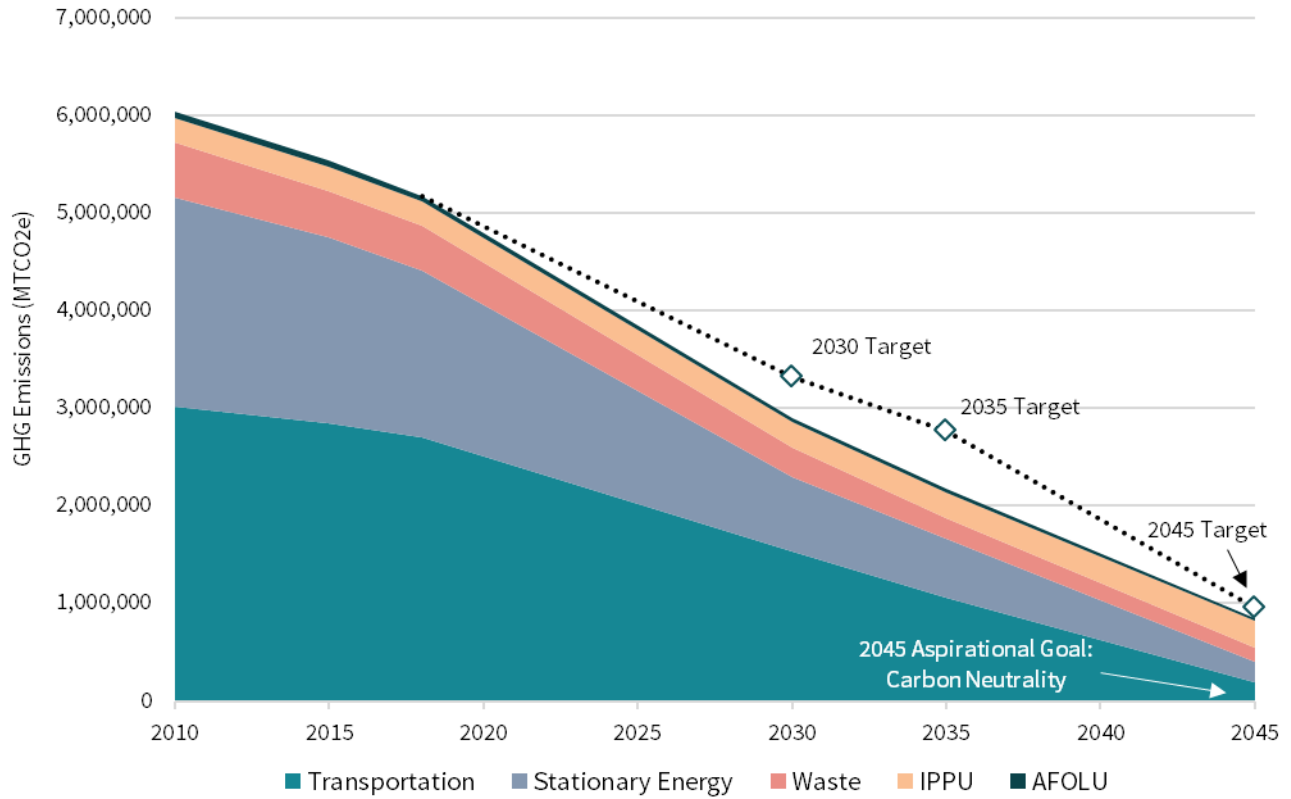


The Path to Carbon Neutrality

The 2045 CAP puts unincorporated Los Angeles County on a path to achieve carbon neutrality by reducing emissions from each sector. **Figure ES-2** shows unincorporated Los Angeles County's path toward the 2045 carbon-neutral goal, representing implementation of the 2045 CAP, which should enable unincorporated Los Angeles County to meet or exceed its 2030, 2035, and 2045 emissions targets, and make substantial progress toward carbon neutrality. As shown, the largest decline in emissions will result from changes to the transportation and stationary energy sectors, including from existing state regulations mandating the use of more fuel-efficient vehicles and requiring that higher percentages of renewable power be provided by electric utilities.

However, a portion of unincorporated Los Angeles County's emissions cannot currently be shown to be fully eliminated by 2045, given existing technology limitations. These remaining emissions, also known as *residual emissions*, include a small amount of natural gas use in buildings as well as emissions from fossil fuel-powered vehicles and off-road equipment, oil and gas industries, manufacturing facilities, landfills, wastewater treatment, fluorinated products, and fertilizer use. Total residual emissions in 2045 are estimated to be approximately 850,000 MTCO_{2e}. The County expects that new technologies developed over the next 25 years, along with evolving state regulations and financial incentives, will further reduce these residual emissions. The County will continually monitor the state of these technologies and will update the 2045 CAP every five years to adjust policies and programs to take advantage of these advancements.

If residual emissions cannot be eliminated through new technologies or be reduced over time in response to changes in communitywide activities, the County may consider future implementation of carbon removal strategies (such as carbon capture and sequestration and direct air capture), along with future implementation of a carbon offsets/credits program, after the completion of feasibility studies, to achieve carbon neutrality by 2045. Evolving state regulations, programs, and financial incentives will provide new opportunities for the County to counteract any residual emissions. For example, almost \$9 billion in carbon capture and sequestration support was included in the \$1 trillion Infrastructure Investment and Jobs Act of 2021, which includes funding to establish four direct air capture hubs. As another example, SB 27 of 2001 will provide carbon removal projects via an in-state project registry, which will serve as a database of projects in the state that drive climate action on natural and working lands.



Abbreviations: AFOLU = agriculture, forestry, and other land use; GHG = greenhouse gas; IPPU = industrial processes and product use; MTCO₂e = metric tons of carbon dioxide equivalent

Figure ES-2: Greenhouse Gas Emissions Reduction Path to 2045 Carbon Neutrality and 2045 CAP Targets

CHAPTER 1

Introduction

1.1 Purpose and Scope

There is well-established scientific consensus that human activities are responsible for an increase in heat-trapping greenhouse gas (GHG) emissions in the atmosphere, causing average global temperatures to rise over time. This rise in temperature is changing global climate patterns and increasing the likelihood of weather-related natural disasters, the effects of which are disproportionately felt by the most vulnerable communities in Los Angeles County and worldwide. Climate change has the potential to threaten the safety, public health, economic health, and quality of life of this generation and future generations.

To address climate change and safeguard local communities, in 2006, the State of California adopted Assembly Bill (AB) 32, the Global Warming Solutions Act, which established a statewide goal to achieve 1990 emissions levels by 2020. In turn, local governments throughout the state developed climate action plans (CAPs) to reduce emissions and support the state's goals. In 2015, the County of Los Angeles (County) adopted the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP) as a component of the Air Quality Element of the *Los Angeles County General Plan 2035* (General Plan) and set a target to reduce emissions in unincorporated Los Angeles County by 11 percent by 2020.

Worldwide, leaders are establishing goals to achieve deep reductions in carbon emissions. In December 2015, world leaders adopted the 2016 Paris Climate Agreement (Paris Agreement), a global action plan to avoid catastrophic impacts of climate change, formalizing their concerted efforts to limit the global average temperature increase to 1.5 degrees Celsius above preindustrial levels. The agreement urged national leaders to join forces with states and local governments to

commit to net zero carbon emissions by 2050. In September 2018, the County Board of Supervisors signed the *We Are Still In* Declaration, affirming the County's continued commitment to uphold the target set by the Paris Agreement. In November 2019, then-Governor Jerry Brown's Executive Order (EO) B-55-18 set a new goal to bring the state to carbon neutrality by 2045, which is five years before the Paris Agreement deadline. In September 2022, Governor Gavin Newsom signed AB 1279, which codified EO B-55-18 by requiring that the State of California achieve net zero GHG emissions no later than 2045, and by requiring the state to reduce direct anthropogenic GHG emissions 85 percent below 1990 levels by 2045. On December 15, 2022, the California Air Resources Board (CARB) adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), which lays out a path for achieving the statewide goals codified in AB 1279.

This *2045 Los Angeles County Climate Action Plan* (2045 CAP) builds upon these existing and ongoing efforts and focuses on actions to reduce GHG emissions associated with community activities in unincorporated Los Angeles County (**Figure 1-1**). The 2045 CAP, which replaces the 2020 CCAP and sets new targets and goals beyond 2020, ties together existing climate change initiatives and provides a blueprint for deep carbon reductions.

The objectives of the 2045 CAP are as follows:

1. Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
2. Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
3. Provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets.
4. Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
5. Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide California Environmental Quality Act (CEQA) streamlining for development projects (serve as a "qualified CAP") via the 2045 Climate Action Plan CEQA Streamlining Checklist (2045 CAP Checklist).

The 2045 CAP achieves unincorporated Los Angeles County's emissions reduction targets for 2030, 2035, and 2045. The 2045 CAP also includes an aspirational goal to achieve carbon neutrality by 2045 to align with the *We Are Still In* Declaration and the State of California's carbon reduction targets and goals.

The 2045 CAP guides County actions through a comprehensive suite of strategies, measures, and actions that are geographically specific to unincorporated Los Angeles County and is to be implemented through County and external agency partnerships. It accounts for GHG emission reduction programs and requirements implemented by the County in recent years that were not included in the 2020 CCAP, while identifying new programs and requirements that may require the development of ordinances. Given the broad reach of climate action, the 2045 CAP pairs with other components of the General Plan such as the Housing and Safety Elements to achieve co-benefits.

As an implementation program of the General Plan Air Quality Element, the 2045 CAP identifies County actions for carrying out the policies of the Air Quality Element. The actions identify lead and partner agencies; however, they are not exclusive and new partners can be added as needed. The actions also include general timeframes that assume the availability of adequate funding. Appendix E, *Implementation Details*, lists the aforementioned details and can be administratively updated as implementation of the 2045 CAP advances to reflect changes such as tracking metrics as new data sources are available or new funding sources are identified.

Future development projects are subject to the applicability provisions of the General Plan and are required to meet the goals and policies of the General Plan along with adopted regulatory requirements. The 2045 CAP creates a voluntary opportunity for qualifying future development projects to streamline the GHG analysis component of the project's environmental review. Appendix F, *2045 Climate Action Plan CEQA Streamlining Checklist*, discusses the opportunity and can be updated administratively as implementation of the 2045 CAP advances to reflect changes that include but are not limited to new ordinances that are adopted.

The 2045 CAP includes a GHG emissions inventory; projections for future emissions; and a road map for addressing emissions from the transportation, stationary energy (used by buildings and other facilities), waste, industrial, agricultural, and land use sectors. GHG emissions reduction strategies, measures, and actions identified in the 2045 CAP will also yield community co-benefits, such as improvements in air quality, public health, mobility, equity, and climate resilience. The 2045 CAP also includes an implementation and monitoring program.

Please note the use of the following terms throughout this document:

- **“Unincorporated Los Angeles County”** refers to the unincorporated areas of Los Angeles County.
- **“Countywide”** refers to Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities.
- **“County”** refers to County of Los Angeles government.

Strategies are the overall, sector-level goals of the 2045 CAP. These are broad strategies that aim for overarching goals within each emissions sector.

Measures are focused, sub-sector-specific programs and goals that include performance standards that are designed to be quantified for GHG emission reductions.

Actions are the specific policies, programs, or tools that will be implemented to support long-range planning.

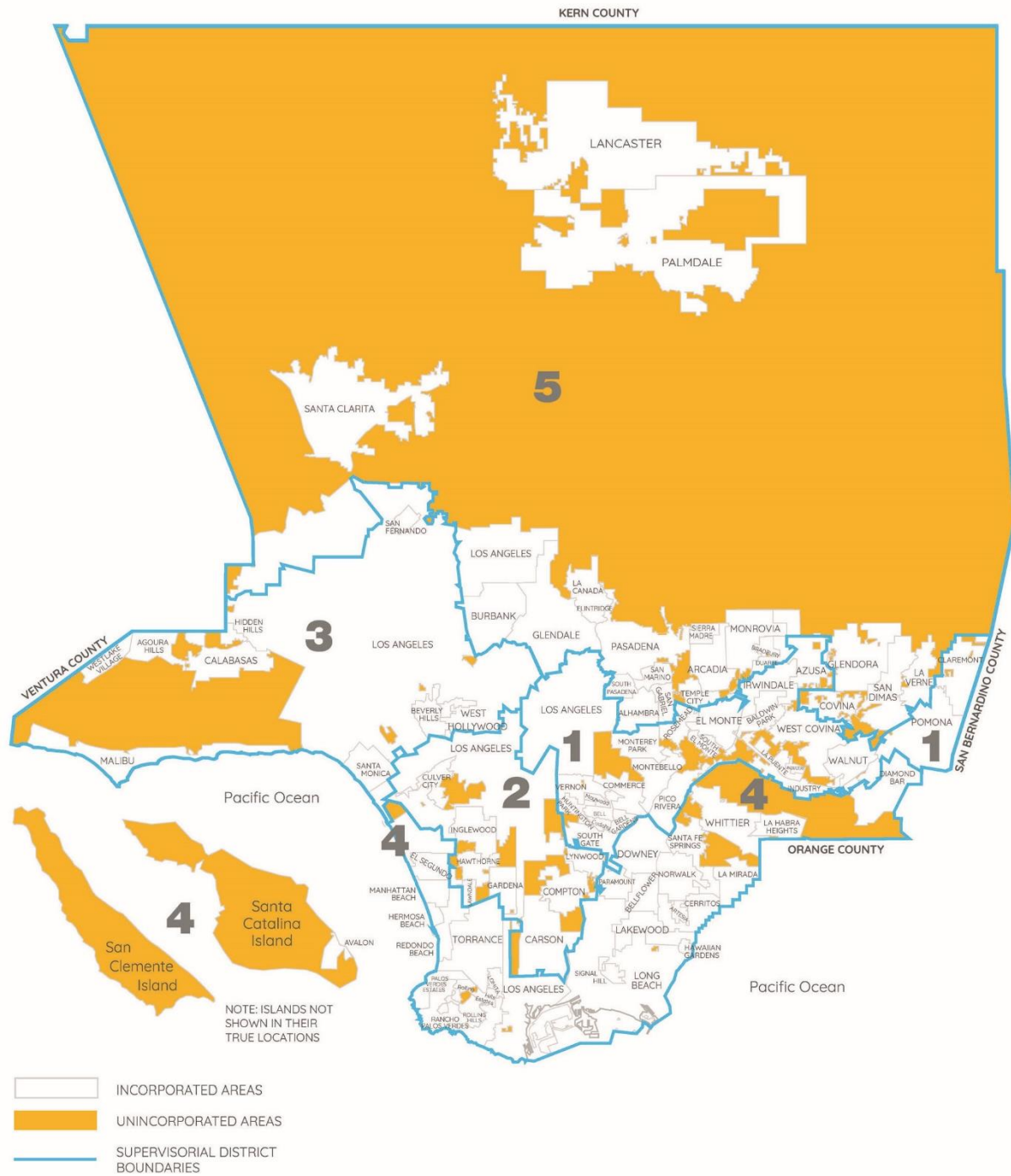


Figure 1-1: Map of Unincorporated Los Angeles County

Using the 2045 Climate Action Plan for CEQA Streamlining

This 2045 CAP can be used to comply with project-level review requirements pursuant to the California Environmental Quality Act (CEQA). The CEQA Guidelines specify that the CEQA evaluation of a project's GHG emissions can be streamlined if the CAP does the following (CEQA Guidelines Section 15183.5(b)):

- Quantifies GHG emissions, both existing and projected, from activities within a defined geographic area over a specified time period.
- Establishes a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
- Identifies and analyzes the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specifies measures or a group of measures, including performance standards, that would collectively achieve the specified emissions level if implemented on a project-by-project basis, as demonstrated by substantial evidence.
- Establishes a mechanism for monitoring the plan's progress toward achieving the target, and requires an amendment if the plan is not achieving specified levels.
- Is adopted in a public process following environmental review.

The 2045 CAP meets the requirements of CEQA Guidelines Section 15183.5(b) by:

- (1) Quantifying all primary sectors of GHG emissions associated with all activities occurring within unincorporated Los Angeles County over which the County has some level of jurisdictional control or influence¹ for 2015 through 2045;
- (2) Establishing GHG emissions reduction targets for 2030, 2035, and 2045, below which GHG emissions would not be cumulatively considerable based on the substantial evidence that the 2045 CAP is consistent with the 2022 Scoping Plan, Senate Bill (SB) 32, and AB 1279,² as well as an aspirational goal for 2045;
- (3) Analyzing community emissions for unincorporated Los Angeles County as a whole and including predicted growth expected by 2045;
- (4) Including specific mandatory and voluntary measures that quantitatively achieve the overall reduction targets for 2030, 2035, and 2045, and make progress toward the aspirational goal for 2045;

¹ The inventories and forecasts include sources over which the County has some level of jurisdictional control or influence (such as building energy use) and exclude those sources over which the County has no jurisdictional control or influence (such as military vehicles and power plants). This is consistent with standard CAP practice and guidance from CARB and California air districts.

² Consistency with the 2022 Scoping Plan, SB 32, and AB 1279 is an appropriate metric by which to determine the significance of the 2045 CAP's GHG emissions through 2045. As stipulated by CEQA Guidelines Section 15064.4(b)(3), a lead agency "may consider a project's consistency with the state's long-term climate goals or strategies" when determining the significance of a project's cumulative GHG emissions impacts. Because the 2045 CAP's 2030 and 2045 targets meet or exceed statewide targets, the 2045 CAP's targets represent the level below which GHG emissions would not be cumulatively considerable.

- (5) Including an implementation and monitoring program that contains performance indicators and targets, details regarding funding and financing strategies, a list of available and expected funding sources, and a table for monitoring and reporting progress on the measures and their implementing actions; and
- (6) Being adopted through a public process in compliance with CEQA.

Projects that incorporate applicable CEQA streamlining requirements, as identified in the 2045 CAP CEQA Streamlining Consistency Review Checklist (Checklist), and are consistent with the General Plan can streamline their CEQA analysis of GHG impacts without needing a separate quantitative analysis. However, a qualitative checklist-based analysis is encourage to demonstrate consistency with the 2045 CAP. The Checklist is only required if a project applicant wants to use CEQA streamlining for GHG impacts; it is not required if a project-level environmental analysis of GHG impacts is conducted. As such, the Checklist is voluntary. To demonstrate compliance with the 2045 CAP CEQA Streamlining Requirements, all projects that do not screen out of the 2045 CAP consistency review process must implement either (1) all feasible applicable checklist measures or (2) for infeasible checklist measures, alternative project emissions reduction measures. The project review checklist will be used for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for a streamlined project-specific CEQA GHG analysis.

1.2 Climate Change Impacts

This 2045 CAP focuses on reducing GHG emissions. The region, however, is already experiencing the impacts of a changing climate. Furthermore, mitigation and adaptation efforts are interrelated. Taking action to prevent climate change can help reduce the speed and magnitude of climate change impacts on a community. While climate change adaptation is not the primary focus of the 2045 CAP, many GHG emissions reduction strategies in the 2045 CAP also will increase climate resilience. Many climate strategies achieve both mitigation and adaptation benefits. GHG emissions reduction strategies and measures that help increase community resilience to climate change are identified in Chapter 3. Concurrent efforts seek to minimize the impacts of climate change through actions that adapt and prepare communities for climate change.

California's Climate Change Assessment

California's Fourth Climate Change Assessment, released in 2018, highlighted key projected climate impacts on the Los Angeles region, taking into account both low-emissions and high-emissions future scenarios, with the latter containing more extreme impacts that are projected to occur if emissions are not cut substantially.³ These climate impacts include the following:

- **Warming and Extreme Heat.** Extreme temperatures in the Los Angeles region are expected to increase in both intensity and frequency. Under a higher emissions scenario, the hottest day of the year may be up to 10 degrees Fahrenheit warmer by late in the century. Average maximum daily temperatures are projected to increase around 4–5 degrees Fahrenheit by mid-century and 5–8 degrees Fahrenheit by late in the century.

³ Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency. n.d. *California's Fourth Climate Assessment: Los Angeles Region Report*. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Req%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf. Accessed in April 2022.

- **Drought and Precipitation.** While average precipitation is projected to change only slightly overall, the dry and wet extremes are projected to increase. This “precipitation whiplash” means that the region is likely to experience drier periods than what the region has historically experienced, followed by much wetter periods with more extreme rain events, potentially leading to increased water scarcity, mudslides, and flooding.
- **Wildfire.** Wildfires are projected to continue to increase in size, frequency, and intensity. Thirteen of the 20 most destructive wildfires in California have occurred in the past five years.⁴
- **Sea Level Rise.** Sea levels are projected to rise roughly 1–2 feet by mid-century and as much as 8–10 feet by the end of the century based on the most extreme projections. Sea level rise can exacerbate the impacts of high tides, storm surges, and heavy precipitation, and can lead to increased coastal flooding.
- **Ocean Acidification.** As levels of atmospheric carbon dioxide (CO₂) increase as a result of human activity such as burning fossil fuels, the amount of CO₂ absorbed by the ocean also increases. When CO₂ is absorbed by seawater, a series of chemical reactions occur, resulting in increased acidity. Ocean acidification can impair the ability of calcifying organisms like corals to build and maintain their shells, skeletons, and other calcium carbonate structures. Since the Industrial Revolution, the acidity of surface ocean waters has increased by 30 percent.⁵

LA County Climate Vulnerability Assessment

The *LA County Climate Vulnerability Assessment* (Climate Vulnerability Assessment) assesses risks and challenges to Los Angeles County from climate change.⁶ The assessment builds on the findings of *California’s Fourth Climate Change Assessment*, with an emphasis on social vulnerabilities and the dangers of cascading impacts, where harms to one type of infrastructure can affect other facilities or systems, related services, and the people who rely on them. The social vulnerability assessment overlays climate hazard exposure with social sensitivities, such as preexisting health conditions, age, and income, to determine where higher social vulnerability is present, and highlights the inequities in access to resources that help communities adapt to climate change. The physical vulnerability assessment evaluates the climate vulnerability of different physical infrastructure and facilities Countywide, including level of sensitivity to climate hazards and adaptive capacity to respond to hazards. The Climate Vulnerability Assessment highlights key findings related to infrastructure, such as the role of parks in mitigating extreme heat hazards. Energy infrastructure is recognized as one of the physical assets at highest risk from various hazards that include extreme heat, stormwater flooding, and coastal flooding.

In outlining the region’s vulnerabilities to climate hazards, the assessment identifies the following high-level measures and actions that the County and community stakeholders can take to increase resiliency and response to climate change.

⁴ California Department of Forestry and Fire Protection. 2022. Top 20 Most Destructive California Wildfires. Available: <https://www.fire.ca.gov/stats-events/>. Last updated January 13, 2022. Accessed in January 2022.

⁵ National Oceanic and Atmospheric Administration. 2020. Ocean Acidification. Available: <https://www.noaa.gov/education/resource-collections/ocean-coasts/ocean-acidification>. Last updated April 1, 2020. Accessed in February 2023.

⁶ Los Angeles County Chief Sustainability Office. 2021. *LA County Climate Vulnerability Assessment*. October 2021. Available: <https://ceo.lacounty.gov/cso-actions/>. Accessed in February 2022.

County

- Implement multi-beneficial climate adaptation and mitigation measures that address multiple hazards and prioritize historically disadvantaged communities.
- Collaborate with local and regional jurisdictions to implement a comprehensive climate resilience strategy that addresses area-specific and regional climate vulnerabilities.
- Advocate for equitable legislation and funding to support vulnerable people and places, and climate projects for these communities.
- Inform communities about climate hazards and preparation and mitigation measures.
- Continue research on climate change hazards and risks to eliminate gaps and inform adaptive capacity.

Community Stakeholders

- Support communities’ climate planning and adaptation efforts by illuminating needs and gaps.
- Build on information-sharing and awareness of climate issues in communities and for local residents.
- Enhance social connections to build community resilience and adaptive capacity.

1.3 Existing Laws, Regulations, and Policies

Federal and state laws can enable and inform local actions. As such, the 2045 CAP considers applicable federal and state laws (**Table 1-1**) and recognizes that future amendments to measures may be needed to address future federal and state regulations.

Table 1-1: Relevant Federal Laws and Regulations

| LEGISLATION / REGULATION | YEAR | DESCRIPTION |
|---|------|--|
| Clean Air Act | 1970 | Established a comprehensive framework for reducing harmful air pollution. |
| Corporate Average Fuel Economy Standards | 1975 | Established fuel efficiency standards for passenger cars and light trucks. |
| Code of Federal Regulations, Title 40, Part 89 | 1994 | Established emissions standards for off-road compression-ignition engines. |
| <i>Massachusetts v. Environmental Protection Agency</i> | 2007 | The U.S. Supreme Court ruled that carbon dioxide is an air pollutant under the Clean Air Act and authorized the U.S. Environmental Protection Agency to regulate greenhouse gas emissions. |
| Phase 2 Heavy-Duty National Program* | 2016 | Established emissions standards for heavy-duty trucks through model year 2027. |

NOTE:

* Portions of Phase 2 were rolled back in July 2018.

According to the U.S. Environmental Protection Agency, transportation emissions have accounted for the largest portion of U.S. GHG emissions in recent years.⁷ Federal climate change legislation has therefore focused on curbing emissions from the transportation sector by regulating fuel consumption standards for light-duty vehicles, and for medium- and heavy-duty trucks and engines. These fuel efficiency standards are defined for new vehicle model years and are regulated under the Clean Air Act and the Corporate Average Fuel Economy program.

Over the past 30 years, the State of California has enacted legislation to address climate change (**Table 1-2**). In 2006, the Global Warming Solutions Act (AB 32) was enacted to address emissions from all sources throughout the state. AB 32 authorized CARB to implement a comprehensive program to achieve the state’s targets of reducing GHG emissions to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. By 2016, California met the AB 32 target set for 2020. In the same year, then-Governor Jerry Brown signed SB 32, which established a new 2030 target to reduce GHG emissions by 40 percent below 1990 levels, as established by his EO B-30-15 (2015). In 2018, Governor Brown issued EO B-55-18, establishing a statewide goal to reach carbon neutrality by 2045, and maintain net negative emissions thereafter. In September 2022, Governor Newsom signed AB 1279, which codified EO B-55-18 by requiring that the state achieve net zero GHG emissions no later than 2045 and reduce direct anthropogenic GHG emissions 85 percent below 1990 levels by 2045. In December 2022, CARB adopted the 2022 Scoping Plan, which lays out a path to achieve the statewide goals codified in AB 1279.

Table 1-2: Relevant State Laws, Regulations, and Policies

| LEGISLATION / REGULATION | YEAR | DESCRIPTION |
|-------------------------------------|------|---|
| Transportation | | |
| AB 1493 Clean Car Standards | 2002 | Established emissions reduction requirements for new passenger vehicles from 2009 to 2016. |
| EO S-01-07 Low Carbon Fuel Standard | 2007 | Established the State of California's Low Carbon Fuel Standard and an emissions reduction target of at least 10 percent of the carbon intensity of the state's transportation fuels by 2020. With the adoption of the 2022 Scoping Plan, the standard has been revised to a reduction of at least 20 percent. |
| SB 375 | 2008 | Directed the California Air Resources Board to set regional targets for GHG emissions reductions from passenger vehicles. |
| AB 1493 Amendments | 2009 | Cemented the state's enforcement of the legislation starting in 2009, while providing vehicle manufacturers with new compliance flexibility. |
| Advanced Clean Cars Program | 2012 | Combined the control of smog-causing pollutants and GHG emissions into a single coordinated package of regulations to guide the development of environmentally advanced cars. |
| Mobile Source Strategy | 2016 | Described the strategy for transitioning to zero-emission vehicles, or ZEVs, with a goal of 1.5 million ZEVs by 2025 and 4.2 million ZEVs by 2030. The Mobile Source Strategy includes more stringent GHG emissions requirements for light-duty vehicles beyond 2025, and calls for increased deployment of ZEV trucks. |
| Advanced Clean Cars Update | 2017 | Affirmed that adopted GHG emissions reduction standards remain appropriate for 2022 through 2025 model years. |

⁷ U.S. Environmental Protection Agency. 2022. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Available: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>. Accessed in February 2022.

Table 1-2: Relevant State Laws, Regulations, and Policies (cont.)

| LEGISLATION / REGULATION | YEAR | DESCRIPTION |
|---|------|---|
| AB 2127 | 2018 | Requires the CEC, working with CARB and the CPUC, to prepare and biennially update a statewide assessment of the EV charging infrastructure needed to support the levels of EV adoption required for the state to meet its goals of putting at least 5 million ZEVs on California roads by 2030 and reducing emissions of GHGs to 40% below 1990 levels by 2030. |
| EO B-48-15 | 2018 | Established a statewide goal of at least 5 million ZEVs on state roads by 2030, and installation of 200 hydrogen fueling stations and 250,000 ZEV chargers. |
| EO N-79-20 | 2020 | Established a target that 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035 and that 100 percent of medium- and heavy-duty vehicles in the state be zero-emission by 2045 and by 2035 for drayage trucks. |
| Advanced Clean Cars II Program | 2022 | Requires that by 2035 all new passenger cars, trucks, and SUVs sold in California will be zero emissions. It amends the Zero-Emission Vehicle Regulation to require an increasing number of ZEVs, and relies on advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric, and plug-in hybrid EVs, to meet air quality and climate change emissions standards. It also amends the Low-Emission Vehicle Regulations to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions while the sector transitions toward 100% electrification by 2035. |
| Energy | | |
| SB 1078 | 2002 | Required that 20% of electricity retail sales be served by renewable resources by 2017. |
| CALGreen Code (Title 24, Part 11) | 2011 | Established the first mandatory green building standards code in the country. |
| SB 350 | 2015 | Accelerated implementation of SB 1078 and mandated a 50% Renewables Portfolio Standard, or RPS, by 2030. SB 350 includes interim annual RPS targets with three-year compliance periods and requires that 65% of RPS procurement be derived from long-term contracts of 10 or more years. |
| CALGreen Code Update | 2016 | Affirmed energy standards for newly constructed buildings, and additions and alterations to existing buildings. Added requirements for demand reductions during critical peak periods and future solar electric and thermal system installations. |
| SB 100 California Renewables Portfolio Standard Program | 2018 | Established a goal of supplying 100% of the state’s electricity from clean sources by 2045. |
| SB 596 | 2021 | Requires CARB, by July 1, 2023, to develop a comprehensive strategy for the state’s cement sector to achieve net zero emissions of GHGs associated with cement used in California as soon as possible, but no later than December 31, 2045. The law establishes an interim target of 40% below the 2019 average GHG intensity of cement by December 31, 2035. |
| SB 1020 | 2022 | Adds interim renewable energy and zero-carbon energy retail sales of electricity targets to California end-use customers set at 90% in 2035 and 95% in 2040. It accelerates the timeline required to have 100% renewable energy and zero-carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This law requires each state agency to individually achieve the 100% goal by 2035, with specified requirements. |
| SB 905 | 2022 | Requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, or storage and CO ₂ removal projects and technology. |

Table 1-2: Relevant State Laws, Regulations, and Policies (cont.)

| LEGISLATION / REGULATION | YEAR | DESCRIPTION |
|--|------|---|
| SB 1137 | 2022 | Prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. This law requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake specified monitoring, public notice, and nuisance requirements. |
| SB 1075 | 2022 | Requires CARB, by June 1, 2024, to prepare an evaluation that includes policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate pollutants; a description of other forms of hydrogen to achieve emission reductions; and other required elements. |
| SB 1206 | 2022 | Mandates a stepped sales prohibition on newly produced high-GWP HFCs to transition California’s economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. This law also requires CARB to develop regulations to increase the adoption of very low-, i.e., GWP <10, and no-GWP technologies in sectors that currently rely on higher-GWP HFCs. |
| Waste and Water | | |
| AB 341 | 2011 | Required each city, county, and regional agency to develop a source reduction and recycling element of an integrated waste management plan containing specified components, including a source reduction component, a recycling component, and a composting component. With certain exceptions, the source reduction and recycling element of that plan was required to divert 75% of all solid waste from landfill disposal or transformation by 2020, through source reduction, recycling, and composting activities. |
| AB 1826 | 2014 | Required any business, defined as a commercial or public entity that generates more than 4 cubic yards of commercial solid waste per week or is a multifamily residential dwelling of 5 units or more, to arrange for recycling services. |
| SB 1383 | 2016 | Established emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants, including methane by 40%, HFC gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. |
| SB 606 and AB 1668 | 2018 | Required urban and agricultural water suppliers to enact new urban efficiency standards for indoor use, outdoor use, and water lost to leaks. |
| Agriculture, Forestry, and Other Land Use | | |
| EO N-82-20 | 2020 | Sets a statewide goal to conserve at least 30% of California’s land and coastal waters by 2030. This order instructed the CNRA, in consultation with other state agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state’s carbon neutrality goal and build climate resilience. |
| SB 27 | 2021 | Requires the CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This law also requires CARB to establish specified CO ₂ removal targets for 2030 and beyond as part of its 2022 Scoping Plan. |
| AB 1757 | 2022 | Requires the CNRA, in collaboration with CARB, other state agencies, and an expert advisory committee, to determine by January 1, 2024, a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience. |

Table 1-2: Relevant State Laws, Regulations, and Policies (cont.)

| LEGISLATION / REGULATION | YEAR | DESCRIPTION |
|---|------|--|
| Statewide Emissions Reduction Targets | | |
| EO S-3-05 | 2005 | Established the state’s first GHG emissions reductions targets: reduction to 2000 levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050. |
| AB 32, Global Warming Solutions Act | 2006 | Codified EO S-3-05’s 2020 goal and authorized CARB to implement a comprehensive, multiyear program to reduce GHG emissions from all sources throughout the state. |
| AB 32 Scoping Plan | 2008 | Described the long-term road map for achieving the AB 32 target of reducing emissions to 1990 levels by 2020. |
| SB 535, Greenhouse Gas Reduction Fund and Disadvantaged Communities | 2012 | Required that 25% of all funds allocated pursuant to an investment plan for the use of state monies collected through a Cap-and-Trade program be allocated to projects that benefit disadvantaged communities, and that at least 10% of these be spent on projects located in disadvantaged communities. |
| EO B-30-15 | 2015 | Established a GHG emissions reduction target of 40% below 1990 levels by 2030. |
| SB 32, California Global Warming Solutions Act of 2006: Emissions limit | 2016 | Codified EO B-30-15’s 2030 goal. |
| 2017 Scoping Plan Update | 2017 | Described the long-term road map for achieving the SB 32 target of reducing emissions by 40% below 1990 levels by 2030. |
| AB 398, California’s Cap-and-Trade Program | 2017 | Extended the state’s Cap-and-Trade Program through 2030, a key strategy for reducing GHGs in the state. The Cap-and-Trade Program sets total allowable emissions for facilities and creates carbon offset credits through carbon sequestration projects. |
| EO B-55-18 | 2018 | Established a target to achieve carbon neutrality (net zero GHG emissions) by 2045. |
| AB 1279 | 2022 | Established the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced at least 85% below 1990 levels. |

Abbreviations: 2022 Scoping Plan = 2022 Scoping Plan for Achieving Carbon Neutrality; AB = Assembly Bill; CALGreen Code = California Green Building Standards Code; CARB = California Air Resources Board; CEC = California Energy Commission; CNRA = California Natural Resources Agency; CO₂ = carbon dioxide; CPUC = California Public Utilities Commission; EO = Executive Order; EV = electric vehicle; GHG = greenhouse gas; GWP = global warming potential; HFC = hydrofluorocarbon; RPS = Renewable Portfolio Standard; SB = Senate Bill; ZEV = zero-emission vehicle

1.4 County Climate Action Framework

General Plan and 2020 CCAP

The General Plan provides the policy framework and long-range vision for growth in unincorporated Los Angeles County through the year 2035. It establishes goals, policies, and programs to foster healthy, livable, and sustainable communities, and provides a guide for future land use, housing, and economic development. The General Plan includes the Planning Areas Framework, which serves as a mechanism for local communities to develop plans that respond to their unique and diverse characteristics.

In 2015, the 2020 CCAP was adopted as a component of the Air Quality Element of the General Plan. It identified emissions related to community activities, established a 2020 GHG emissions reduction target consistent with AB 32, and established 26 local actions for reductions of GHG emissions. The 2020 CCAP was the first plan to set GHG emissions reduction goals in unincorporated Los Angeles County, providing a road map for implementing measures to reduce unincorporated Los Angeles County's GHG emissions. The 2020 CCAP addressed emissions from land use, transportation, building energy, water consumption, and waste generation.

This 2045 CAP builds upon the 2020 CCAP by including new emissions reduction targets that address both GHG emissions from General Plan buildout and the projected reductions needed to reach carbon neutrality by 2045, in accordance with the State of California's most recent efforts. The 2045 CAP also integrates the guiding principles from the General Plan to identify tailored climate action opportunities within unincorporated Los Angeles County and to examine potential co-benefits (see Appendix D). These guiding principles include the following objectives:

- Employ smart growth.
- Ensure that community services and infrastructure are sufficient to accommodate growth.
- Provide the foundation for a strong and diverse economy.
- Promote excellence in environmental resource management.
- Provide healthy, livable, and equitable communities.

The 2045 CAP is a policy document intended to reduce communitywide GHG emissions and supports development already allowed under the General Plan's land use assumptions as identified in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use, or specific projects, are proposed as part of the 2045 CAP.

OurCounty Sustainability Plan

In August 2019, the County Board of Supervisors adopted *OurCounty: Los Angeles Countywide Sustainability Plan* (OurCounty Sustainability Plan). The plan includes a bold and cross-cutting set of goals, strategies, actions, and targets for creating a resilient, inclusive, and sustainable Los Angeles County.

The OurCounty Sustainability Plan does not supersede the General Plan. It is a forward-looking strategic framework for creating a more equitable and resilient Los Angeles County in the face of climate change. This 2045 CAP is consistent with the OurCounty Sustainability Plan's visions and goals for the region, but differs in that it is part of the General Plan and focuses on reducing GHG emissions from community activities projected for unincorporated Los Angeles County. Further, the measures identified in the 2045 CAP underwent environmental review pursuant to CEQA.

The 2045 CAP details the GHG emissions reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and implements the GHG emissions reduction policies of the Air Quality Element of the General Plan. Specifically, the 2045 CAP replaces the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. As discussed above, the 2045 CAP is a policy document that supports development already allowed under the General Plan's land use assumptions as identified in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the 2045 CAP.

Appendix C provides a summary of the strategies and actions in the OurCounty Sustainability Plan that align most closely with the 2045 CAP.

1.5 County Leadership on Climate Action

Achieving carbon neutrality requires large-scale transformations extending well beyond the borders of unincorporated Los Angeles County. While the 2045 CAP is focused on reducing community emissions, the County must take a strong leadership role and build partnerships that will be necessary to realize deep carbon reductions across sectors and geographies.

Appendix C, *Prior and Current County Actions on Climate Change*, summarizes past and current actions by the County on climate change, focusing on key achievements over the past 10–15 years. Section 3.3, *Strategies, Measures, and Actions*, summarizes within each sector recent climate actions initiated by the County to reduce emissions from municipal operations or catalyze community change to facilitate emissions reductions.

1.6 Climate Equity

The 2045 CAP is intended to be inclusive, accessible, and meaningful and prioritizes frontline communities, which are Black, Indigenous, and People of Color (BIPOC) and low-income households that have historically experienced a disproportionately high share of environmental impacts.

The County is committed to actively promoting equity throughout its policies and practices. The County’s Racial Equity Strategic Plan provides a multi-dimensional definition of equity that includes:⁸

Procedural equity refers to fair, transparent, and inclusive processes that lead to more just outcomes and opportunities for individuals impacted by inequity. Procedural equity can be achieved through processes that acknowledge power imbalances across stakeholders and aim to rectify them by recognizing diverse forms of power and expertise, namely expertise from lived experiences—integral to informing more equitable and effective public decision-making.

Distributional equity is the most understood form of equity, achieved through fair allocation of resources such as goods and services, as well as societal benefits and burdens.

Structural equity addresses the root causes of inequities including underlying systemic structures, policies, societal norms, and practices that contribute towards disparate population-level outcomes.

⁸ For more information, see <https://ceo.lacounty.gov/racial-equity-strategic-plan/>

Climate equity overlays these definitions of equity with social vulnerabilities specific to climate change. This includes the communities that are most likely to be harmed by climate impacts, as well as those most likely to be left out of the benefits of a transition to a carbon-free economy. This 2045 CAP refers to these as “frontline communities.”

The definition of “frontline community” can change based on the specific public policy, plan, or action being considered. In unincorporated Los Angeles County, frontline communities are in areas with the worst air and soil pollution and traffic congestion, with the least open space and smallest number of trees, and they are exposed to particulate matter from living near major freeways, ports, and industry. These communities also have the least access to nature, healthy food, and health care and suffer elevated rates of heart disease, asthma, and premature death, as well as reduced access to economic opportunities. Frontline communities could also include tribal communities, as well as other low-income households in rural and remote areas with limited access to resources and high exposure to fire and other hazards. Frontline communities are inequitably bearing the greatest burden of the climate crisis.

Because frontline communities also have fewer resources to prevent, adapt, or recover from climate disasters, the County prioritizes strategies that both invest in and support these communities. These strategies include providing specific incentives and subsidies for affordable housing developments, implementing building decarbonization measures in multifamily buildings and low-income housing, and implementing other initiatives as discussed below.

Climate Equity Guiding Principles

The level of planning, policy change, and investment needed to implement climate action strategies creates an opportunity for the County to integrate equity in ways that help reverse the trends of discrimination and disinvestment. Doing that will require deliberate effort to build procedural, distributional, and structural equity. These climate equity guiding principles, summarized in **Figure 1-2**, ensure that frontline communities are prioritized and engaged with for resource and funding allocation.

| | |
|--|--|
| | <p>Prioritize Frontline Communities Develop and implement strategies that identify, prioritize, and effectively support and create opportunities for the most disadvantaged geographies and vulnerable populations. Actively seek to remove barriers to investment and incorporate protections for people and communities.</p> |
| | <p>Authentically Engage Communities Authentically engage residents, organizations, and other community stakeholders to inform and determine implementation and investments. Include stakeholders in decisions that impact their lives.</p> |
| | <p>Use Equity-Centered Data and Analysis Use data to effectively assess and communicate equity needs and support timely assessment of progress. Understand the way that funding allocation requirements and formulas lead to disinvestment and reformulate to put frontline communities first.</p> |
| | <p>Work Collaboratively Work collaboratively and intentionally across departments as well as across leadership levels and decision-makers within the County, with other government agencies, and with external partners and community-based organizations.</p> |
| | <p>Achieve Results Act urgently and boldly to achieve tangible results. Create a cycle of feedback with communities through implementation to continually refine and improve.</p> |

Figure 1-2: Climate Equity Guiding Principles

Equity Approach

An approach was developed to promote and prioritize equity based on the climate equity guiding principles to provide a pathway to successful implementation of the 2045 CAP. Transparency, engagement, and early action are the primary themes.

The equity approach illustrated below will help the County to communicate the climate threats that frontline communities face, confront the barriers that frontline communities encounter in terms of traditional public investment, and support pathways toward equitable and transformative implementation of climate strategies. Collaboration with frontline communities will follow the process depicted in **Figure 1-3**.

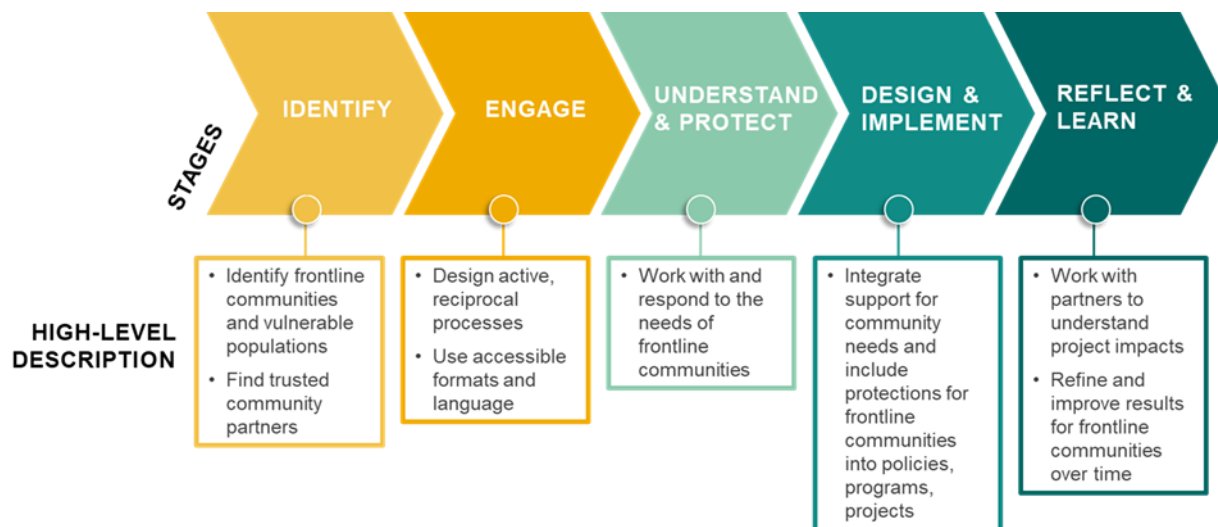


Figure 1-3: Integrating Equity into 2045 CAP Implementation

Engagement is an ongoing conversation that must happen to align 2045 CAP programs with community needs throughout the stages of planning, design, implementation, monitoring, and performance. Engagement includes time for post-project reflection and learning so that all parties can collectively and continually improve in meeting community needs.

Identify Frontline Communities

The County will identify frontline communities to prioritize additional resources to support the implementation of 2045 CAP actions. Available data sets, such as the [SB 535 Disadvantaged Communities map](#), the federal government’s [Climate and Economic Justice Screening Tool](#), the [County’s Climate Vulnerability Assessment](#), CalEnviroScreen, and the County’s Equity Indicators Tool will be used to identify frontline communities.

Using multiple data sets will allow for increased eligibility of grant funding when made available. The State of California designated “Disadvantaged Communities” to invest proceeds from the Cap-and-Trade Program in these communities that will help improve public health and quality of life by reducing GHG emissions. Having the frontline communities in unincorporated Los Angeles County align with the SB 535 Disadvantaged Communities designation will ensure that funding from the state’s Cap-and-Trade Program can be used to implement the County’s 2045 CAP actions. More information on SB 535 Disadvantaged Communities can be found here: <https://oehha.ca.gov/calenviroscreen/sb535>.

The Climate and Economic Justice Screening Tool was developed by the federal government in response to EO 14008. The purpose of the tool is to help identify both urban and rural disadvantaged communities and provide information for the Justice40 Initiative. The Justice40 Initiative will deliver at least 40 percent of the overall benefits from federal investments in climate change, clean energy and energy efficiency, clean transit, affordable and sustainable housing, training and workforce development, pollution remediation, and clean water infrastructure to disadvantaged communities. More information on the Justice40 Initiative can be found here: <https://www.whitehouse.gov/environmentaljustice/justice40/>.

Engage Communities and Build Capacity

The County is committed to building a meaningful and reciprocal relationship with partners in frontline communities, and to implementing community engagement processes for all climate projects. This requires meeting people where they are, in formats that enable active dialogue and participation. Community engagement will be facilitated with inclusive language access strategies.

Community engagement can help create a feedback loop with frontline communities that provides qualitative data for monitoring and implementation purposes and for informing the next CAP update. Engaging with community-based organizations (CBOs) will be a vital part of the community engagement process because CBOs are well-rooted in the communities they serve and provide a channel of communication between the communities and the County.

In addition, conversations with local tribes will be held to start a dialogue on how climate change is affecting native and indigenous communities and what the County can do to support equitable implementation of CAP actions. Early consultations beyond what is minimally required by AB 52 and SB 18 will allow tribes to provide input during the planning phase of an implementation action.

Provide a Just Transition

A just transition to clean energy is imperative to minimize impacts on the economy while maximizing opportunities for the workforce to transition to clean energy jobs. The vision for a just transition for unincorporated Los Angeles County must be defined in partnership with the people whose lives and livelihoods are most affected. Although the net result of a transition away from fossil fuels will likely be a net gain in total jobs given the level of capital investment, the types of jobs will shift. That can have real consequences on people in many different fields, from electrical workers working in power plants to plumbers installing heating, ventilation, and air conditioning systems in homes; the challenges will vary. This may be particularly challenging for older workers compared to those just entering the workforce. The County cannot address all of these challenges on its own, but it can commit to becoming an active partner in supporting workers during this transition.

The Los Angeles Just Transition Strategy report was developed with a task force that included frontline and tribal communities, industry representatives, labor organizations, and workforce development partners.⁹ The report includes goals, strategies, and actions to ensure a just transition for workers and communities affected by the phase-out of oil drilling and extraction activities.

Incorporate Anti-Displacement

The climate crisis is urgent and requires immediate action; however, the County is also facing a housing crisis, with too many people unhoused, and too many people overburdened by high housing costs. Although it may be tempting to try to solve these issues separately, they are in fact deeply intertwined. Frontline communities are likely to be affected by extreme-weather events and have fewer resources to recover and adapt. Leaving them out of policies and programs to decarbonize will perpetuate the cycles of disinvestment that underlie and exacerbate existing disparities.¹⁰

Affordable housing is the most complicated and vulnerable building sector. Providers often compile funding sources from multiple lenders, each with their own financial requirements and expectations. Cash flows are limited and providers may have limited access to additional capital to make improvements. As a result, many buildings have significant backlogs of deferred maintenance. At the same time, residents of these buildings often have limited housing options that they can afford. The concerns range from landowners possibly passing the cost of improvements to tenants to increased property assessments that result from improvements. Displacement of residents is a concern as improvements and retrofits are made to the building stock.

Decarbonizing buildings through efficiency, switching from fossil fuels to other sources of energy, and electrification will take up-front investment. As part of a larger effort to stem displacement of vulnerable populations, the Housing Element includes Program 43, which will assess displacement and gentrification risk through a displacement risk study. The data will be presented through an anti-displacement mapping tool to ensure that the most current information is available as anti-displacement efforts are implemented. The anti-displacement mapping tool will help to inform the implementation of CAP actions in communities that are already vulnerable to displacement or gentrification. Equity strategies may include the use of grant programs to prevent passing the costs on to tenants, protection of tenants from harassment or from displacement due to construction and other illegal eviction processes, and additional public engagement to clarify any misconception of property assessments.

The anti-displacement solution will require more than leaving affordable housing and frontline communities out through exemptions. Leaving some communities out perpetuates cycles of disinvestment. As other buildings are transitioned, frontline communities and affordable housing would be left behind and not enjoy the benefits of decarbonization, such as lower energy costs and healthier indoor air, and eventually could lead to stranded assets as buildings would remain

⁹ Los Angeles County. 2022. *Los Angeles Just Transition Strategy*. December 2022. Available: https://assets-us-01.kc-usercontent.com/0234f496-d2b7-00b6-17a4-b43e949b70a2/d2ade00b-66cc-4da1-8a01-7f9d72ee7b5d/LA%20County-City%20Just%20Transition%20Strategy_FINAL%2012.5.22.pdf. Accessed February 2023.

¹⁰ City of Los Angeles. 2023. LACityClerk Connect: Council File 21-1463, "Community Assemblies/Climate Emergency Mobilization Office/Building Decarbonization/L.A.s Green New Deal." Available: <https://cityclerk.lacity.org/lacityclerkconnect/index.cfm?fa=ccfi.viewrecord&cfnumber=21-1463>. Last changed January 13, 2023.

reliant on a diminishing natural gas infrastructure. The County will look beyond exemptions and work with partners to design policies and programs that support frontline communities, protect tenants, and prioritize public subsidies to maintain housing affordability.

Include Rural and Remote Communities

Rural and remote communities often face different issues than their more urban counterparts related to infrastructure and buildings. Communities along the wildland/urban interface and those surrounded by natural areas have higher fire exposure and may experience more outages as a result of Public Safety Power Shutdowns. These issues are of particular concern for vulnerable populations, such as people who rely on electricity for medical issues, elderly people who may have a hard time evacuating, or low-income communities that may not be able to afford housing elsewhere. Rural populations will be included in stakeholder engagement processes for the CAP to enable potential issues and strategies to surface.

Deliver Support to Frontline Communities

The County will conduct studies for many 2045 CAP measures and actions to identify priority areas for implementation, physical infrastructure needs, regulatory and legal requirements, up-front and ongoing costs, barriers and obstacles, and needed partnerships.

Historically, frontline communities have had challenges accessing incentives for energy retrofit initiatives. A key challenge is the use of rebates, which reimburse energy customers after retrofits have been completed. Rebates and other program delivery mechanisms that require complex applications and out-of-pocket investment make it difficult for energy customers who are already financially burdened. It will be a priority of the County to provide a grant program in place of the traditional rebate programs for frontline communities. A grant program to fund energy retrofits will allow frontline communities to take advantage of the benefits from the beginning of the process. The grant program can also include services, labor, and supplies provided by the County. The goal is to support bringing the benefits of decarbonization to frontline communities without burdening vulnerable people with upfront costs.

Develop a Monitoring and Reporting Mechanism

A monitoring and reporting mechanism will be developed to track the overall implementation of the 2045 CAP and monitor the rate of implementation in frontline communities. A robust data collection system involving all lead and partner departments will be developed to provide the information necessary for monitoring. The monitoring program will inform which actions to prioritize and allocate additional funding to, especially for frontline communities. The data collected will be used to analyze factors such as areas of implementation, progress of CAP actions, funding availability and allocation, and comparative rate of implementation. See Appendix E for the performance objectives, tracking metrics, and potential funding sources included in the monitoring program.

This information will be reported on the County's website and released annually as part of the General Plan Progress Report. The County's Climate Action website (<https://planning.lacounty.gov/climate>) will include a dashboard displaying the most current updates on the implementation of the 2045 CAP actions in frontline communities. The dashboard will contain information that members of the public can use to track progress and provide feedback on adjustments needed to meet the 2045 CAP Equity Guiding Principles.

1.7 Energy Resilience

Although the 2045 CAP is focused on reducing GHG emissions, action must be taken in the context of climate adaptation and resilience. Safe and thriving communities require a reliable, affordable source of clean energy. The shift toward electrifying buildings and vehicles, and the increase in temperatures caused by climate change, will mean increased demand on the electricity grid. At the same time, energy infrastructure is vulnerable to increased climate-driven extreme events including fires, heat, and floods. Providing reliable energy while moving away from fossil fuels in buildings and transportation will take planning, investment, and collaboration. Efforts are needed across California to increase renewable energy supply and prepare the grid. The County will work in collaboration with multiple partners on implementation.

It is important to note that climate impacts on the grid will happen whether decarbonization takes place or not. Southern California Edison (SCE) has released a Climate Adaptation and Vulnerability Assessment to evaluate grid vulnerability.¹¹ Climate change is not a far-off possibility—it is happening now, with devastating consequences.¹² Frontline communities again are bearing the greatest burden. Adaptation is needed to prepare the grid at the same time and with the same urgency as reducing emissions to limit the impacts of climate change. The potential cost of doing nothing on either front far exceeds the cost of action.¹³ These issues must be addressed in tandem to have the greatest value.

The energy transition includes not only a shift in energy sources, but also a shift in where and when energy is generated and how it is used and managed. This requires rethinking the energy grid to move away from a centralized system dominated by large-scale fossil fuel-based power plants with a one-way flow of energy from source to customers. Instead, the grid is becoming increasingly decentralized, distributed, localized, and network-based. Over time, this will enable greater energy resilience because the system will be able to respond and adapt to local conditions in a more precise way, limiting large-scale disruptions.

¹¹ Southern California Edison. 2023. Climate Adaptation. Available: <https://www.sce.com/about-us/environment/climate-adaptation>. Accessed February 2023.

¹² Intergovernmental Panel on Climate Change. 2022. *Summary for Policy Makers*. Section B: Observed and Projected Impacts and Risks. Available: https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_Summary_ForPolicymakers.pdf. Accessed February 2023.

¹³ Deloitte. 2023. Carbon-Proofing the Grid: Increasing Renewables and Resilience. February 24, 2023. Available: <https://www2.deloitte.com/us/en/insights/industry/power-and-utilities/carbon-proofing-strategies.html>. Accessed February 2023.

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CHAPTER 2

GHG Emissions Inventory, Forecasts, and Reduction Targets

2.1 Community GHG Emissions Inventory

The 2015 GHG emissions inventory for unincorporated Los Angeles County forms the baseline inventory for the 2045 CAP. The year 2015 was selected as the emissions baseline for the 2045 CAP because of the availability in that year of the most recent, reliable, accurate, and complete emissions activity data that were available when the OurCounty Sustainability Plan was prepared. The 2015 GHG emissions inventory is compliant with the *Global Protocol for Community-Scale Greenhouse Gas Inventories*, which accounts for communitywide GHG emissions in line with 2006 Intergovernmental Panel on Climate Change guidelines for national GHG inventories. The inventory accounts for the CO₂ equivalence of seven gases: CO₂, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. These emissions are organized into five sectors, based on the activity type or source:

- **Transportation:** The transportation sector accounts for emissions from fuel combustion and electricity consumption from passenger vehicles, goods movement, public transit systems (including bus and rail), and off-road vehicles.
- **Stationary Energy:** The stationary energy sector includes emissions from energy use in buildings, facilities, and stationary (off-road) equipment. Emissions from fossil fuel combustion at on-site and off-site energy generation facilities, fossil fuel extraction, and fugitive emissions released from oil and natural gas systems are reported for this sector.
- **Waste:** The waste sector accounts for emissions generated at landfills, biological treatment (composting and anaerobic digestion), and wastewater treatment plants.

- **Industrial Processes and Product Use (IPPU):** Emissions from non-energy industrial activities and use of products like refrigerants, foams, aerosols, and alternatives to ozone-depleting substances, among other fossil fuel-based solvents, are reported under IPPU.
- **Agriculture, Forestry, and Other Land Use (AFOLU):** The AFOLU sector accounts for land-related emissions (and removals). Land-use changes, agriculture, forestry, and aggregate sources (including wildfires, biomass burning, and fertilizer use) are reported for this sector.

The community-scale GHG emissions inventories for unincorporated Los Angeles County were developed using the *Global Protocol for Community-Scale Greenhouse Gas Inventories*.¹⁴ This protocol is used for calculating and reporting emissions from community activities and sources from seven gases: CO₂, methane, nitrous oxide, HFCs, perfluorocarbons, hexafluoride, and nitrogen trifluoride. The inventories include the following emissions:

- Emissions produced from activities and sources within the boundaries of unincorporated Los Angeles County (Scope 1).
- Emissions generated from the use of grid-supplied electricity, heat, steam, and/or cooling within the boundaries of unincorporated Los Angeles County (Scope 2).
- Emissions occurring outside the boundaries of unincorporated Los Angeles County as a result of activities taking place within the boundaries of unincorporated Los Angeles County (Scope 3).

The GHG inventories comprise emissions from activities occurring within unincorporated Los Angeles County areas, including emissions that occur elsewhere because of those activities. A good example is solid waste, which is generated locally but disposed of at a landfill outside the jurisdiction, where it decomposes and generates GHGs. Solid waste is a Scope 3 emissions source.

It should also be noted that the Los Angeles County Sanitation Districts has prepared a separate GHG inventory using site-specific data rather than population-based estimates, which were used for certain sources in the 2045 CAP's 2015 and 2018 inventories.^{15,16} The County and the Los Angeles County Sanitation Districts will work cooperatively to achieve carbon neutrality.

In 2015, emissions generated by community activities occurring in unincorporated Los Angeles County amounted to 5.5 million metric tons CO₂ equivalent (MTCO₂e).¹⁷ The transportation and stationary energy sectors were the largest contributors to the inventory. The transportation sector accounts for approximately 2.8 million MTCO₂e (51 percent) of total GHG emissions, while the

¹⁴ World Resources Institute, C40 Cities Climate Leadership Group, and ICLEI – Local Governments for Sustainability. 2014. *Global Protocol for Community-Scale Greenhouse Gas Inventories*, Version 1.1. December 2014. Available: <https://ghgprotocol.org/greenhouse-gas-protocol-accounting-reporting-standard-cities>. Accessed in January 2021.

¹⁵ Los Angeles County Sanitation Districts. 2022. *2021 Greenhouse Gas Inventory Report*.

¹⁶ Environmental Science Associates. 2022. *Positive Verification Opinion for Greenhouse Gas Emissions and Reductions for Emissions Year 2021*.

¹⁷ The 2015 GHG emissions inventory for the unincorporated Los Angeles County is adapted from the Countywide 2015 Community GHG Inventory prepared for the OurCounty Sustainability Plan. Per the OurCounty Sustainability Plan, 2015 emissions from unincorporated Los Angeles County amounted to 9.5 million MTCO₂e. The CAP accounts for emissions from all the sectors and subsectors reported in the OurCounty Sustainability Plan and includes additional community activities for unincorporated Los Angeles County (including off-road equipment, buses, and product use emissions, as detailed in Appendix A.1). However, due to updated activity data, emission factors, and modeling protocols, the 2045 CAP reports significantly lower emissions for 2015 (5.5 million MTCO₂e).

stationary energy sector accounts for approximately 1.9 million MTCO₂e (35 percent) of total GHG emissions. The transportation sector includes emissions from on-road passenger vehicles, trucks, and railways. The stationary energy sector includes emissions from residential, commercial, and institutional uses; industrial buildings; and stationary equipment. The remaining emissions sources include waste and wastewater (8 percent), refrigerants and other industrial products (5 percent), and other land-related activities including forestry and agriculture (1 percent).

To capture the latest emissions profile and emissions trends in Los Angeles County since 2015, the County prepared an updated inventory for the year 2018, given the availability in that year of the most recent complete data set of emissions-generating activity. The 2018 inventory relies on the same protocol and data sources that were used in the 2015 GHG emissions inventory. In 2018, communitywide emissions totaled nearly 5.2 million MTCO₂e. The transportation sector was the greatest contributor, accounting for 52 percent of emissions and 2.7 million MTCO₂e. The stationary energy sector was the second greatest contributor at 33 percent and 1.7 million MTCO₂e. The remaining emissions were generated by the waste (9 percent), IPPU (5 percent), and AFOLU (1 percent) sectors.

Total GHG emissions decreased approximately 7 percent between 2015 and 2018. The stationary energy sector saw the greatest decrease (11 percent), followed by the IPPU sector (6 percent) and the transportation sector (5 percent).¹⁸ Emissions from stationary energy decreased primarily because of the increasing level of renewable energy supplied by SCE into the electricity grid, and because certain power-generating facilities reduced their fossil fuel combustion in the intervening years. Emissions from transportation decreased primarily because of vehicle turnover to more fuel-efficient vehicles. **Table 2-1** and **Figure 2-1** show the 2015 and 2018 emissions breakdowns by sector and sub-sector. (See Appendix A for more detail on the inventories.)

¹⁸ This decrease is attributable to declining emissions factors from the CARB Emissions Factors 2021 (EMFAC2021) model, which outpace the increase in total vehicle miles traveled (VMT) as modeled with the Southern California Association of Governments' (SCAG's) 2016 Regional Travel Demand Model. According to the California Department of Tax and Fee Administration, statewide taxable sales of gasoline and diesel fuel increased by 2 percent from 2015 to 2018. Statewide gasoline and diesel fuel sales may not trend precisely with unincorporated Los Angeles County gasoline and diesel fuel sales, and VMT apportioned to areas in unincorporated Los Angeles County may not correlate perfectly with gasoline sales, which could explain this difference. For additional discussion, see Appendix A.

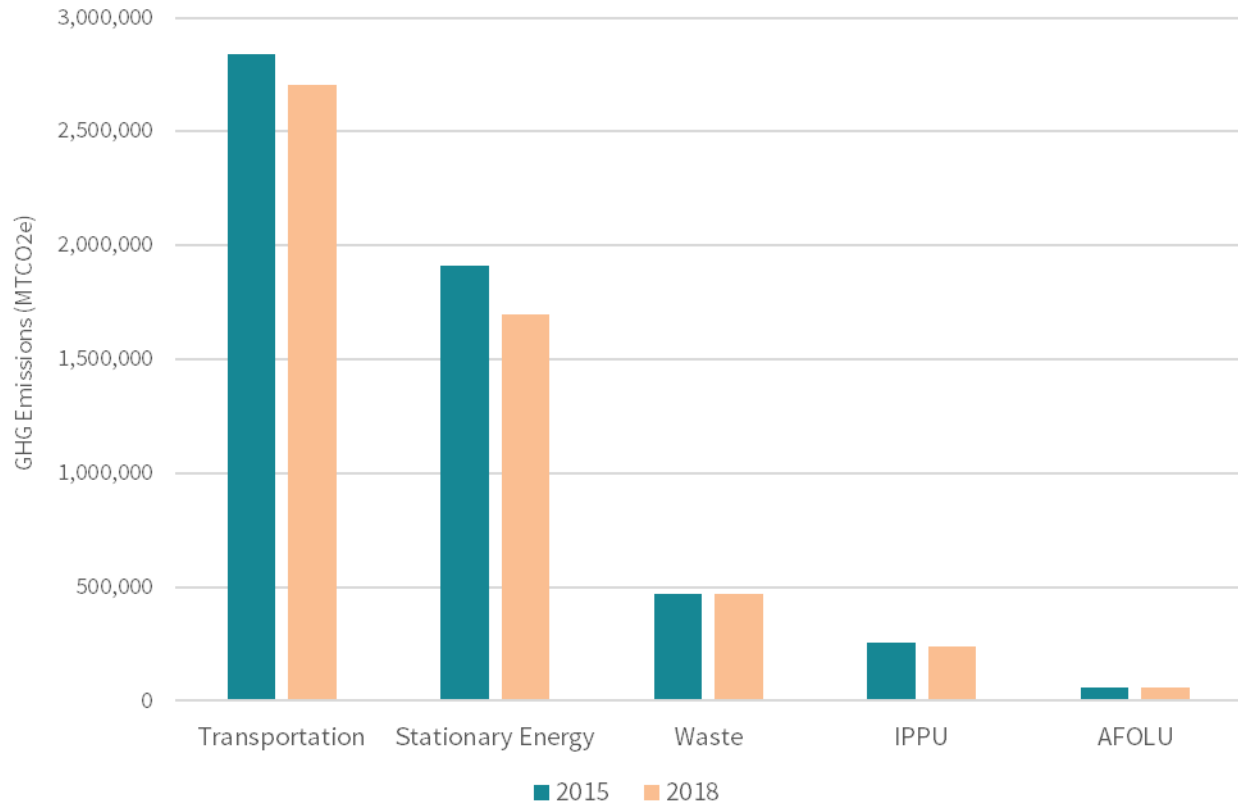


Figure 2-1: 2015 and 2018 Greenhouse Gas Emissions by Sector

Source: Appendix A: Greenhouse Gas Accounting, Business-as-Usual Forecast, and Emission Reduction Targets.

Table 2-1: 2015 and 2018 Greenhouse Gas Emissions by Sector and Sub-sector

| SECTOR / SUB-SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ e) | |
|---|--|------------------|
| | 2015 | 2018 |
| Transportation | 2,838,133 | 2,704,685 |
| On-Road Transportation | 2,828,720 | 2,695,195 |
| Railways | 9,413 | 9,490 |
| Stationary Energy | 1,908,637 | 1,698,809 |
| Residential Buildings | 1,030,285 | 962,743 |
| Commercial and Institutional Buildings | 386,753 | 349,373 |
| Manufacturing and Construction | 309,449 | 244,417 |
| Energy Industries | 121,252 | 98,554 |
| Fugitive Emissions from Oil and Natural Gas Systems | 58,222 | 41,066 |
| Agricultural Off-Road Equipment | 2,675 | 2,658 |
| Waste | 469,997 | 469,382 |
| Solid Waste Disposal | 404,604 | 407,578 |
| Biological Treatment of Solid Waste | 10,214 | 5,309 |
| Wastewater Treatment | 55,179 | 56,495 |
| IPPU | 253,529 | 239,505 |
| Product Use | 253,529 | 239,505 |
| AFOLU | 60,860 | 60,860 |
| Aggregate Sources and Non-CO ₂ Emissions Sources | 25,048 | 25,048 |
| Land-use Change | 35,811 | 35,811 |
| TOTAL | 5,531,155 | 5,173,240 |

Abbreviations: AFOLU = Agriculture, Forestry, and Other Land Use; CO₂ = carbon dioxide; GHG = greenhouse gas; IPPU = Industrial Processes and Product Use; MTCO₂e = metric tons of carbon dioxide equivalent

Note: Totals may not add precisely due to rounding.

Source: Appendix A: Greenhouse Gas Accounting, Business-as-Usual Forecast, and Emission Reduction Targets.

2.2 Emissions Forecasts

The emissions forecasts used in the 2045 CAP account for socioeconomic trends, population growth, historic emissions patterns, and existing policies and legislation that affect GHG emissions. **Figure 2-2** shows population and employment growth projections from 2015 to 2045 for unincorporated Los Angeles County. The 2018 GHG emissions inventory serves as the year from which future emissions are forecasted. Note that the 2045 CAP's baseline year for target setting is 2015; 2018 is just the most recent GHG emissions inventory conducted by the County and was therefore used to forecast emissions.

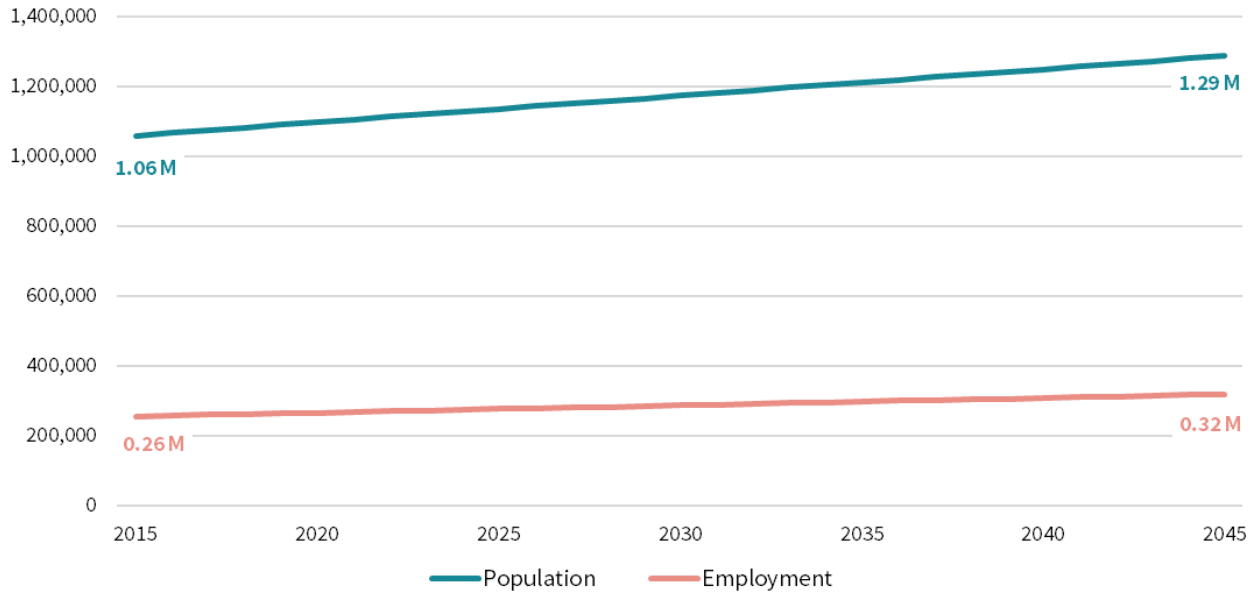


Figure 2-2: Population and Employment Growth in Unincorporated Los Angeles County¹⁹

Business-as-Usual Forecast

Forecasts were developed by sector under a business-as-usual (BAU) scenario for the years 2019 through 2045 (**Figure 2-3**). The BAU forecast assumes that no further government action is taken to reduce GHG emissions and is consistent with the following:

- Population projections by the Southern California Association of Governments (SCAG) to 2040, used in SCAG’s 2016 Regional Transportation Model.²⁰
- Building demolition and construction rates from building area data obtained from the County’s Office of the Assessor.
- Passenger vehicle and truck vehicle miles traveled (VMT) and emissions estimated using the SCAG’s 2016 Regional Travel Demand Model and CARB’s EMISSIONS FACTORS 2021 (EMFAC2021) model.

¹⁹ Southern California Association of Governments. 2016. *The 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*. April 2016 model. Accessed by Fehr and Peers in July 2019.

²⁰ The General Plan uses the 2008 Regional Transportation Model.

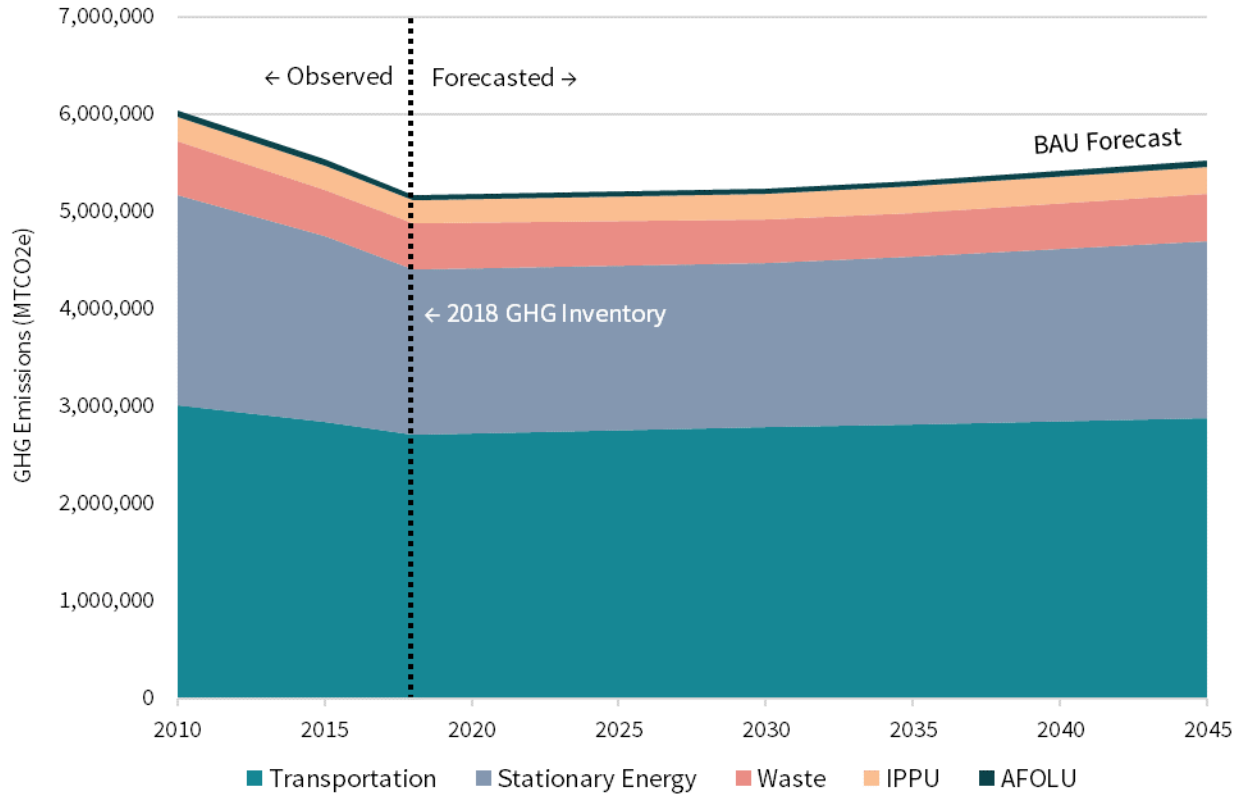


Figure 2-3: Forecast of 2045 Business-as-Usual Greenhouse Gas Emissions

Source: Appendix A: Greenhouse Gas Accounting, Business-as-Usual Forecast, and Emission Reduction Targets.

Adjusted Business-as-Usual Forecast

The Adjusted BAU forecast accounts for future growth under BAU conditions but makes adjustments for federal, state, and County regulations that were implemented before development of the 2045 CAP. The Adjusted BAU forecast assumes that population, housing, employment, and transportation activities would continue to grow over time, consistent with the projections shown in Figure 2-2.

The Adjusted BAU forecast also accounts for existing standards and regulations, such as the California Energy Commission (CEC) 2019 and 2022 Title 24 building energy efficiency requirements, Renewables Portfolio Standards (SB 100), the California Department of Resources Recycling and Recovery (CalRecycle) 75 percent waste diversion initiative (AB 341), Pavley and Advanced Clean Car Standards (AB 1493), and Low Carbon Fuel Standards (EO S-01-07). Furthermore, some existing GHG emissions reduction commitments by County agencies and select strategies from the 2020 CCAP and OurCounty Sustainability Plan are also incorporated into the Adjusted BAU forecast, such as decommissioning of the Pitchess Cogeneration facility and the County’s fleet purchases of zero-emission vehicles (ZEVs).

Table 2-2 shows the projected total emissions for each target year under the Adjusted BAU forecast. Total emissions for unincorporated Los Angeles County are forecasted to decline from 5.5 million MTCO₂e in 2015 to 3.8 million MTCO₂e by 2045, a 31 percent reduction. The table

also shows the forecasts by each major sector. **Figure 2-4** compares the Adjusted BAU forecast to the BAU forecast.

Table 2-2: Forecasts of Adjusted Business-as-Usual Greenhouse Gas Emissions

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ e) | | | | |
|-------------------|--|------------------|------------------|------------------|------------------|
| | 2015 | 2018 | 2030 | 2035 | 2045 |
| Transportation | 2,838,133 | 2,704,685 | 2,205,885 | 2,080,234 | 1,993,281 |
| Stationary Energy | 1,908,637 | 1,698,809 | 1,502,306 | 1,341,401 | 1,018,793 |
| Waste | 469,997 | 469,382 | 451,919 | 454,097 | 482,489 |
| IPPU | 253,529 | 239,505 | 259,605 | 267,981 | 284,731 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 |
| TOTAL | 5,531,155 | 5,173,240 | 4,480,574 | 4,204,572 | 3,840,154 |

Abbreviations: AFOLU = Agriculture, Forestry, and Other Land Use; GHG = greenhouse gas; IPPU = Industrial Processes and Product Use; MTCO₂e = metric tons of carbon dioxide equivalent
 Source: Appendix B: Emissions Forecasting and Reduction Methods.

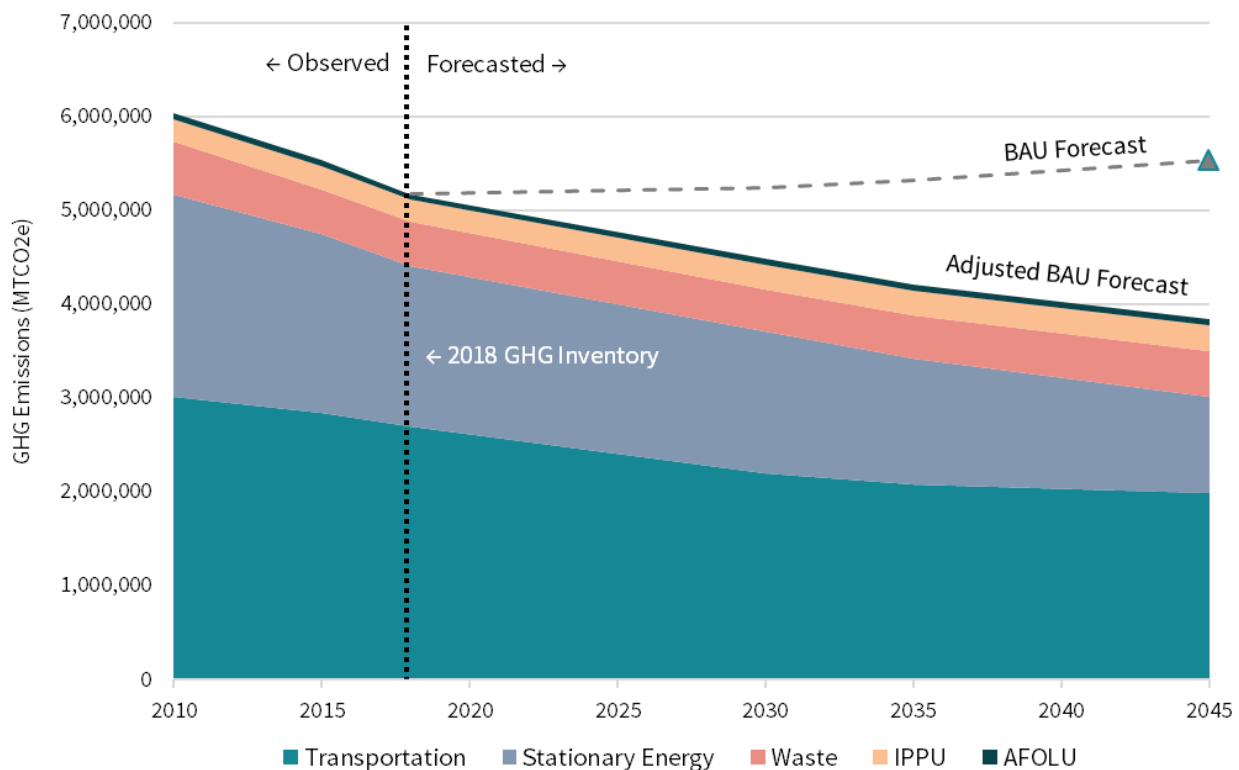


Figure 2-4: Forecast of 2045 Adjusted Business-as-Usual Greenhouse Gas Emissions

Source: Appendix B: Emissions Forecasting and Reduction Methods.

2.3 Emissions Targets

Over the past two decades, the State of California has established multiple GHG emissions reduction targets between 1990 and 2050 to address various aspects of climate change. AB 32 and SB 32 codified the state’s GHG emissions reduction targets by requiring that statewide GHG emissions be reduced to 1990 levels by 2020, and to 40 percent below 1990 levels by 2030, respectively. AB 1279 codified EO B-55-18 by requiring that the state achieve net zero GHG emissions no later than 2045; AB 1279 also requires the state to reduce direct anthropogenic GHG emissions 85 percent below 1990 levels by 2045. The 2045 CAP sets a series of GHG emissions reduction targets and goals to align with various state, regional, and County targets. Most notably, this includes the targets established by SB 32 for 2030, SB 100 and SB 1020 for renewable energy and zero-carbon resources, and the statewide goal established by AB 1279 to achieve carbon neutrality by 2045.

State Targets

AB 32 and SB 32:

- By 2020, reduce GHG emissions to 1990 levels.
- By 2030, reduce GHG emissions to 40 percent below 1990 levels.

AB 1279:

- By 2045, reduce statewide anthropogenic GHG emissions to at least 85 percent below 1990 levels.
- By 2045 or sooner, achieve net zero²¹ GHG emissions and achieve and maintain net negative GHG emissions thereafter.

SB 100 and SB 1020:

- By 2035, source 90 percent of retail sales of electricity to California end-use customers from eligible renewable energy resources and zero-carbon resources.
- By 2035, source 100 percent of electricity procured to serve all state agencies from eligible renewable energy resources and zero-carbon resources.
- By 2045, source 100 percent of retail sales of electricity to California end-use customers from eligible renewable energy resources and zero-carbon resources.

The 2017 Scoping Plan sets forth a statewide plan to achieve the state’s SB 32 2030 GHG emissions reduction target. The 2022 Scoping Plan, adopted by CARB in December 2022, supersedes the 2017 Scoping Plan, and is the state’s plan to achieve carbon neutrality by 2045 or earlier and reduce anthropogenic emissions to 85 percent below 1990 levels by 2045 as mandated by AB 1279.

²¹ AB 1279 defines *net zero GHG emissions* as “emissions of GHGs, as defined in subdivision (g) of Section 38505, to the atmosphere are balanced by removals of GHG emissions over a period of time, as determined by CARB.” California Health and Safety Code Section 38562.2.

Regional Targets

SB 375/SCAG Regional Transportation Plan:

- By 2035, reduce GHG emissions from light-duty vehicles by 19 percent per capita, below a 2005 baseline.
- By 2040, reduce GHG emissions from light-duty vehicles by 21 percent per capita, below a 2005 baseline.

OurCounty Sustainability Plan

- By 2025, reduce GHG emissions Countywide by 25 percent below 2015 levels.
- By 2035, reduce GHG emissions Countywide by 50 percent below 2015 levels.
- By 2045, achieve carbon neutrality for County municipal operations.
- By 2050, achieve carbon neutrality Countywide.

2045 CAP Targets and Carbon Neutrality Goal

The 2045 CAP identifies three targets and one long-term aspirational goal for GHG emissions in unincorporated Los Angeles County. The targets are emissions reductions levels that the 2045 CAP can achieve through the implementation of strategies, measures, and actions, based on quantitative emissions modeling. In other words, the 2045 CAP quantitatively demonstrates how unincorporated Los Angeles County can achieve these three targets. The goal is for carbon neutrality, but implementation of the 2045 CAP is not enough to achieve this emissions level. This is a long-term aspiration of the County to align with the State of California's new statutory target of net zero GHG emissions by 2045.

The targets and carbon neutrality goal in the 2045 CAP align with various state, regional, and County targets for 2030, 2035, and 2045. The 2045 CAP includes a target for the year 2030 to align with SB 32, a target for the year 2045 to align with SB 1279, and an interim target year of 2035 to show substantial progress between the 2030 and 2045 targets and associated state goals. These target years were also selected to support using the 2045 CAP for CEQA streamlining of project-level climate change impacts. (See Chapter 4 for additional discussion of the 2045 CAP's relationship to CEQA.)

2045 CAP Targets

- By 2030, reduce GHG emissions by 40 percent below 2015 levels in unincorporated Los Angeles County.
- By 2035, reduce GHG emissions by 50 percent below 2015 levels in unincorporated Los Angeles County.
- By 2045, reduce GHG emissions by 83 percent below 2015 levels in unincorporated Los Angeles County.

2045 CAP Aspirational Goal

- By 2045, achieve carbon neutrality in unincorporated Los Angeles County.

Figure 2-5 shows unincorporated Los Angeles County’s emissions from 2010 through 2018 along with the Adjusted BAU forecast through 2045. It also includes the BAU forecast for reference and shows the 2045 CAP’s target and goal trendline from 2018 through 2045. As shown in Figure 2-5, the 2030 target of 40 percent below 2015 levels by 2030 sets unincorporated Los Angeles County on a course that exceeds the 2025 Countywide target from the OurCounty Sustainability Plan, proceeds on a near-linear trajectory toward the 2035 and 2045 targets, and lays the groundwork for achieving the aspirational 2045 carbon neutrality goal.

The 2030 target is consistent with the SB 32 target of a 40 percent reduction below 1990 levels. Total unincorporated Los Angeles County emissions in 1990 are estimated to be 6.4 million MTCO₂e. Because the 2015 emissions of 5.5 million MTCO₂e are 15 percent lower than the 1990 emissions, the 2030 target of a 40 percent reduction below 2015 levels is equivalent to a 48 percent reduction below 1990 levels. This exceeds the state target of 40 percent below 1990 levels by 2030. As such, the 2045 CAP’s 2030 target is in line with (and actually more stringent than) the SB 32 target for the state. The 2045 target of 83 percent below 2015 levels (equivalent to 85 percent below 1990 levels) aligns with the State of California’s 2045 target as codified in AB 1279 and evaluated in the Final 2022 Scoping Plan. In addition, the 2035 target of 50 percent below 2015 levels (equivalent to 57 percent below 1990 levels) puts unincorporated Los Angeles County on the trajectory to achieve 85 percent below 1990 levels by 2045, consistent with state targets. These concepts are illustrated in Figure 2-5 and **Figure 2-6**.

| Year | California | 2045 CAP | GHG |
|------|-------------------------------------|---|-----|
| 2030 | 40% below 1990 | 40% below 2015* | |
| 2035 | none | 50% below 2015 | |
| 2045 | 85% below 1990 Carbon Neutrality | 83% below 2015 ^{&} Carbon Neutrality [#] | |
| 2050 | 80% below 1990 | none | |

*A reduction of 40% below 2015 levels is equivalent to 48% below 1990 levels

[&]A reduction of 83% below 2015 levels is equivalent to 85% below 1990 levels

[#]The 2045 CAP has an aspirational goal of carbon neutrality by 2045

Figure 2-5: Statewide and 2045 CAP Greenhouse Gas Emissions Targets and Goals

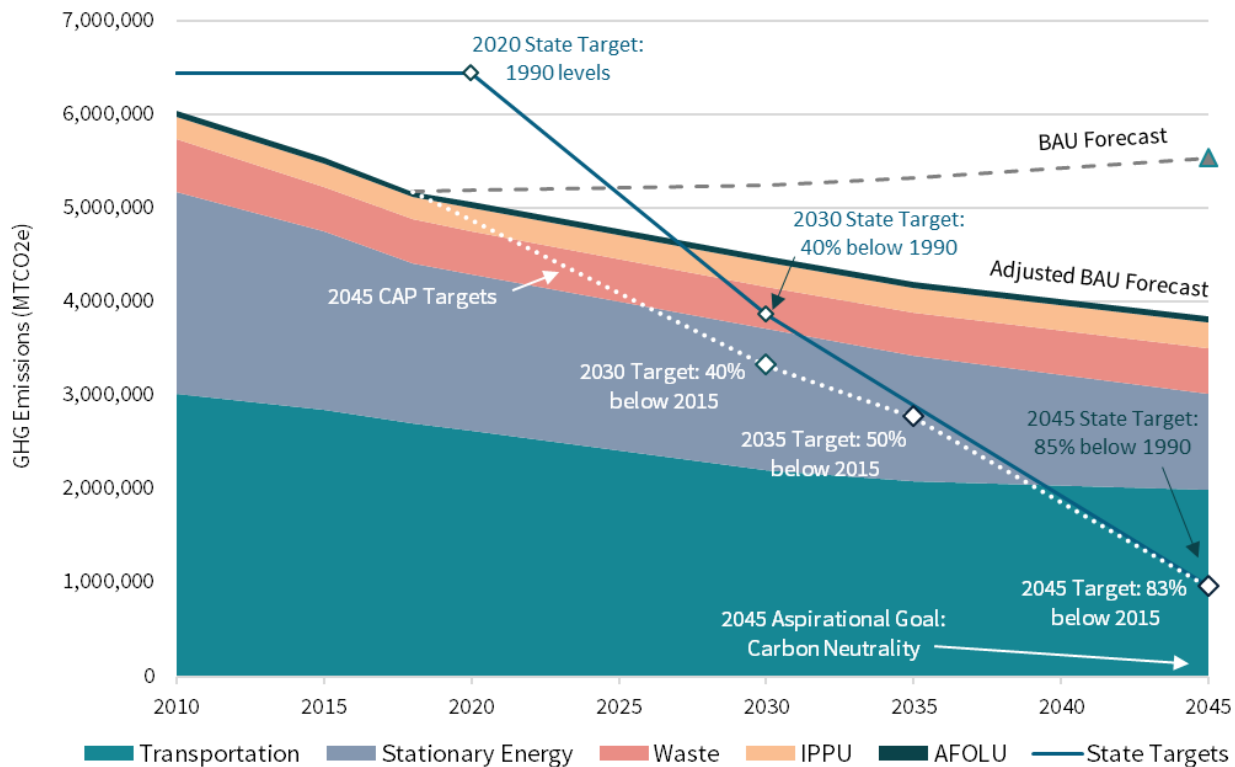


Figure 2-6: 2030, 2035, and 2045 Greenhouse Gas Emissions Targets and 2045 Aspirational Goal

Source: Appendix B: Emissions Forecasting and Reduction Methods.

CHAPTER 3

GHG Emissions Reduction Strategies, Measures, and Actions

3.1 GHG Emissions Reduction Framework

Although state policies and regulations contribute greatly to reducing GHG emissions, local measures are critical to the ability of unincorporated Los Angeles County to meet its emissions reduction targets and its long-term aspirational goal to be carbon neutral. This chapter describes the County’s actions to reduce GHG emissions, organized by the following five categories of strategies:



Energy Supply



Transportation



Building Energy
and Water



Waste



Agriculture,
Forestry, and
Other Land Uses

Throughout this chapter, strategies, measures, and actions are defined as follows:

- **Strategies** are the overall, sector-level goals of the 2045 CAP. These are broad strategies that aim for overarching goals within each emissions sector and are based on the Draft CAP strategies. For example, “*Decarbonize the Energy Supply*” is a strategy.
- **Measures** are focused, sub-sector–specific programs and goals that include performance standards that are designed to be quantified for GHG emissions reductions. They support strategies and are achieved through individual implementing actions. For example, “*Procure Zero-Carbon Electricity*” is a measure.
- **Actions** are the specific policies, programs, or tools that will be implemented to support long-range planning. Actions are intended to be implemented in a coordinated manner to make meaningful progress toward the associated measure and strategy. For example, “*Enroll the community in CPA’s 100 percent Green Power option*” is an action.

Strategies in the 2045 CAP include at least one defined GHG emissions reduction measure with implementing actions and time-defined targets that state the levels of performance required to reduce emissions.

As discussed in Chapter 1, the 2045 CAP is a policy document that would support development already allowed under the General Plan’s land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use–specific projects are proposed as part of the 2045 CAP.

3.2 GHG Emissions Reduction Potential

Quantitative modeling has been used to estimate the GHG emissions reductions associated with the performance objective(s) of 18 separate measures. The modeling incorporates state and County policies, resolutions, programs, and incentives, as well as outreach and education activities (as detailed in Appendix B). This analysis quantifies the annual emissions reductions anticipated from each of the 18 measures in 2030, 2035, and 2045.

Through locally implemented strategies and measures, described in more detail in the following sections, annual emissions reductions for unincorporated Los Angeles County are anticipated to be 1,580,723 MTCO_{2e} by the year 2030 (**Table 3-1**). Combined with state and regional measures, local measures will enable unincorporated Los Angeles County to reduce total community GHG emissions to approximately 2,899,852 MTCO_{2e} in the year 2030 (**Table 3-2**). This reduction of approximately 48 percent from 2015 levels would enable unincorporated Los Angeles County to exceed its 2030 target. Also shown in these tables, annual emissions reductions for unincorporated Los Angeles County are anticipated to be 2,033,420 MTCO_{2e} in the year 2035 and 2,988,956 MTCO_{2e} in the year 2045—61 percent below 2015 levels in 2035 and 85 percent below 2015 levels in 2045—exceeding the targets for both years. These measures would also put unincorporated Los Angeles County on a path toward attaining carbon neutrality by 2045.

Table 3-1: Annual Greenhouse Gas Emissions Reductions by Strategy

| STRATEGY | ANNUAL GHG EMISSIONS REDUCTIONS (MTCO ₂ e/YEAR) | | |
|---|---|------------------|------------------|
| | 2030 | 2035 | 2045 |
| Energy Supply | | | |
| Strategy 1: Decarbonize the Energy Supply | 511,476 | 363,311 | 52,148 |
| Transportation | | | |
| Strategy 2: Increase Densities and Diversity of Land Uses Near Transit | 66,542 | 63,286 | 61,480 |
| Strategy 3: Reduce Single-Occupancy Vehicle Trips | 11,465 | 13,715 | 13,324 |
| Strategy 4: Institutionalize Low-Carbon Transportation | 606,799 | 969,808 | 1,766,822 |
| Building Energy and Water | | | |
| Strategy 5: Decarbonize Buildings | 183,524 | 293,575 | 499,860 |
| Strategy 6: Improve Efficiency of Existing Building Energy Use | 22,274 | 41,255 | 203,455 |
| Strategy 7: Conserve Water | 10,575 | 15,122 | 11,764 |
| Waste | | | |
| Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream | 154,514 | 248,362 | 342,934 |
| Agriculture, Forestry, and Other Land Use | | | |
| Strategy 9: Conserve and Connect Wildlands and Working Lands | 8,953 | 17,906 | 26,858 |
| Strategy 10: Sequester Carbon and Implement Sustainable Agriculture | 4,602 | 7,080 | 10,310 |
| TOTAL REDUCTIONS | 1,580,723 | 2,033,420 | 2,988,956 |

Abbreviation: MTCO₂e/year = metric tons of carbon dioxide equivalent per year
 Note: Totals may not add precisely due to rounding.
 Source: Appendix B: Emissions Forecasting and Reduction Methods.

Table 3-2: Summary of Unincorporated Los Angeles County Greenhouse Gas Emissions Reductions by Year

| DATA / METRIC | ANNUAL GHG EMISSIONS (MTCO ₂ e/YEAR) | | |
|--|---|------------------|----------------|
| | 2030 | 2035 | 2045 |
| Business-as-Usual Forecast | 5,238,062 | 5,319,243 | 5,524,939 |
| Adjusted Business-as-Usual Forecast | 4,480,574 | 4,204,572 | 3,840,154 |
| Total Reductions from 2045 CAP Measures | -1,580,723 | -2,033,420 | -2,988,956 |
| Resulting Community Emissions with 2045 CAP Implementation | 2,899,852 | 2,171,152 | 851,199 |
| Emissions Targets (2030, 2035, and 2045) | 3,318,693 | 2,765,578 | 958,088 |
| Target/Goal Met? | Yes | Yes | Yes |

Abbreviations: 2045 CAP = 2045 Los Angeles County Climate Action Plan; MTCO₂e/year = metric tons of carbon dioxide equivalent per year
 Note: Totals may not add precisely due to rounding.
 Source: Appendix B: Emissions Forecasting and Reduction Methods.

Figure 3-1 depicts unincorporated Los Angeles County’s GHG emissions reduction pathway for meeting its targets through 2045 and making substantial progress toward the long-term aspirational goal of carbon neutrality by 2045. To achieve that long-term aspirational goal, additional state and local measures will be needed, potentially including carbon offsets. The figure illustrates that approximately 850,000 MTCO₂e in residual emissions will need to be eliminated or offset to meet the 2045 carbon-neutral aspirational goal.

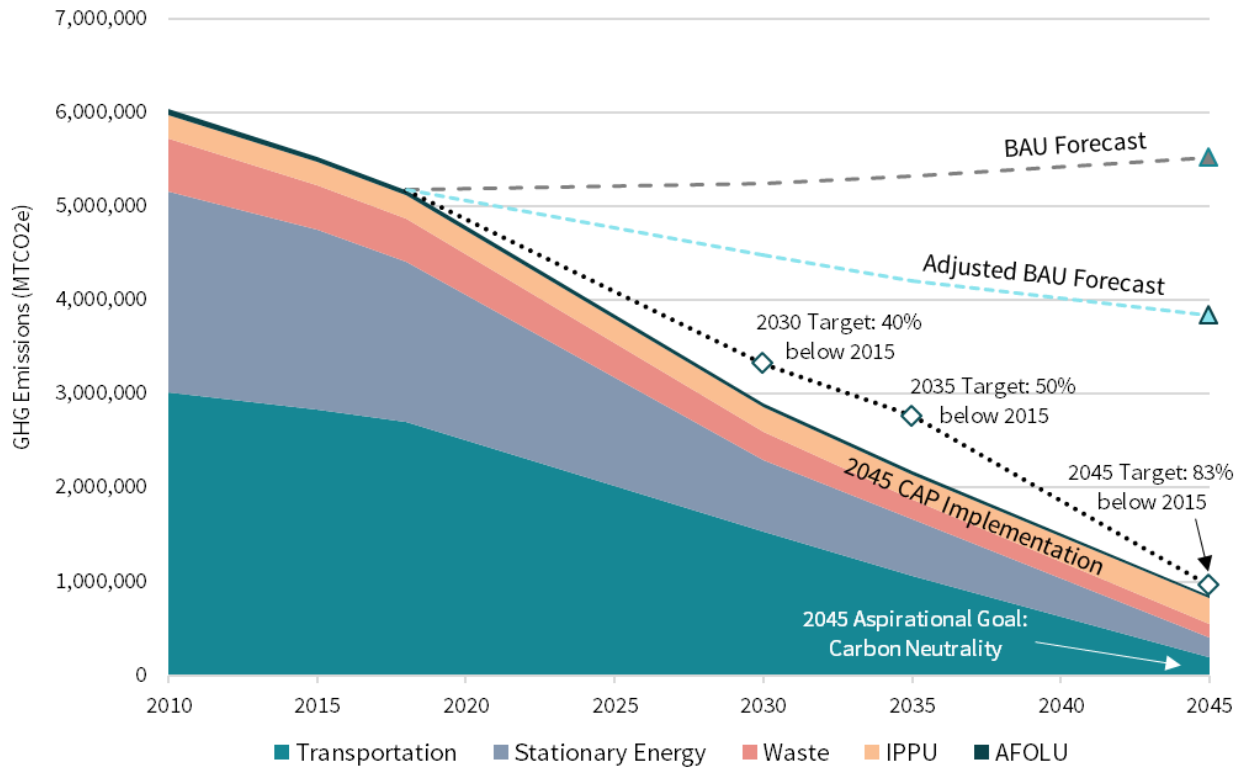


Figure 3-1: Communitywide Greenhouse Gas Emissions Forecasts with 2045 Climate Action Plan Implementation

Source: Appendix B: Emissions Forecasting and Reduction Methods.

Core Measures

The 2045 CAP includes 25 measures and more than 90 implementing actions, and achieving the GHG emissions targets for 2030, 2035, and 2045 described in Chapter 2 can be accomplished by successfully reaching the performance objectives of the core measures and other quantified and supporting measures. While the core measures provide the highest GHG emissions reduction potential, the implementation of other non-core measures provides the County a more comprehensive approach to emissions reductions.

Based on the GHG emissions reduction estimates provided in Chapter 3, **Figure 3-2** shows how five core measures out of the 18 quantified measures contribute almost 90 percent of the total reductions expected by 2030. Unincorporated Los Angeles County can meet its targets for 2030 and 2035 solely through implementation of these five core measures²²:

- T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales
- ES2: Procure Zero-Carbon Electricity
- E1: Decarbonize Existing Buildings
- T8: Accelerate Freight Decarbonization
- W1: Institutionalize Sustainable Waste Systems and Practices

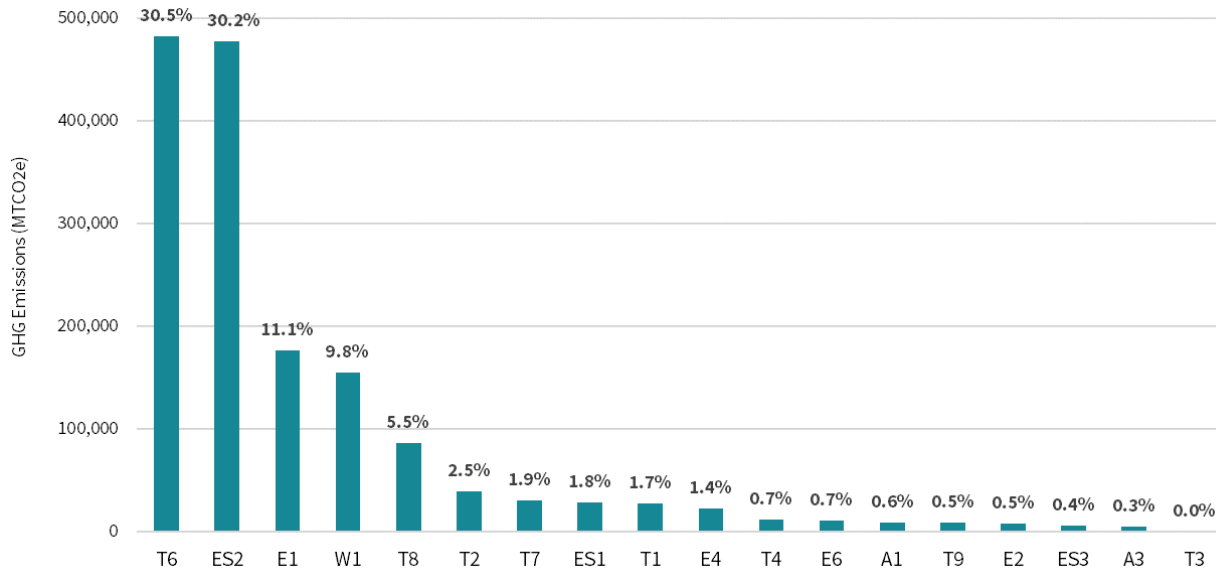


Figure 3-2: Greenhouse Gas Emissions Reduction Measures, Ranked by 2030 Reduction Potential

Source: Appendix B: Emissions Forecasting and Reduction Methods.

Table 3-3 summarizes these five core measures including their performance objectives, implementing agencies, and potential funding sources. Additional detail is provided in Appendix E, including each measure’s implementing actions and associated metrics.

²² Achieving the performance objectives for these five measures should cause unincorporated Los Angeles County to exceed the 2030 target by more than 160,000 MTCO₂e and the 2035 target by more than 230,000 MTCO₂e.

Table 3-3: Core Measures for Meeting Unincorporated Los Angeles County’s 2030, 2035, and 2045 Greenhouse Gas Emissions Targets

| MEASURE | PERFORMANCE GOALS | LEAD | PARTNERS | POTENTIAL FUNDING SOURCES |
|---|---|-------------------------|---|---|
| T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales | <p>Increase the fleetwide percentage of light-duty vehicles in unincorporated Los Angeles County that are ZEVs to 30% by 2030; 50% by 2035; and 90% by 2045.</p> <p>Increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to 68% by 2030 and 100% by 2035.</p> <p>Install new public and private shared electric vehicle charging stations (EVCS): 37,000 by 2030; 74,000 by 2035; and 140,000 by 2045.</p> <p>Install new EVCSs at County facilities and properties: 5,000 by 2030; 10,000 by 2035; and 25,000 by 2045.</p> | CSO ISD DRP PW | Fire LASD Parks Beaches and Harbors SCE | <ul style="list-style-type: none"> • SCE Charge Ready Program • SCAQMD and MSRC Residential EV Charging Incentive Pilot Program • SCAQMD Alternative Fuel Vehicle and Fueling Infrastructure Grants • SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant • SCAQMD Goods Movement Emission Reduction Program • CARB Clean Fuel Reward and CALeVIP • CARB Clean Mobility Options Voucher Pilot Program • CARB Low Carbon Transportation Investments and Air Quality Improvement Program • CARB Bus Replacement Grant • CARB Hybrid and Zero Emission Truck and Bus Voucher Incentive Project • CARB Greenhouse Gas Reduction Fund • CPUC Transportation Electrification Program • CEC CALeVIP and EVSE Rebates • CEC Clean Transportation Program • CalCAP EV Charging Station Financing Program for small businesses • Federal Inflation Reduction Act EV tax credits and other financial incentives • Federal EV Charging Tax Credit • Federal Zero-Emission Transit Bus Tax Exemption |

Table 3-3: Core Measures for Meeting Unincorporated Los Angeles County’s 2030, 2035, and 2045 Greenhouse Gas Emissions Targets (cont.)

| MEASURE | PERFORMANCE GOALS | LEAD | PARTNERS | POTENTIAL FUNDING SOURCES |
|--------------------------------------|--|-------------------------|--|---|
| ES2: Procure Zero-Carbon Electricity | Participate in CPA's Green Power option, SCE's Green Rate option, or other available 100% zero-carbon electricity service: 100% municipal participation by 2025 and 96% community participation by 2030. | ISD CSO | CPA SCE LA100 | <ul style="list-style-type: none"> • CPA Powershare program • Federal Inflation Reduction Act • CARB Greenhouse Gas Reduction Fund • CARB California Climate Investments program • CPUC California Solar Initiative • CPUC Self-Generation Incentive Program • Low-Income Solar and Wind Investment Tax Credit • U.S. DOE Renewable Energy and Efficiency Energy grants |
| E1: Decarbonize Existing Buildings | <p>Decarbonize the existing residential building stock: 25% by 2030; 40% by 2035; and 80% by 2045.</p> <p>Decarbonize the existing nonresidential building stock: 15% by 2030; 25% by 2035; and 60% by 2045.</p> <p>Require major renovations to be electric-ready.</p> <p>Require ZNE for all major renovations: 50% by 2030; 75% by 2035; and 100% by 2045.</p> <p>Adopt building performance standards and reach code(s).</p> <p>Adopt ZNE ordinance.</p> | DRP PW ISD CSO | SCE SoCalGas CPA RePowerLA Coalition NRDC | <ul style="list-style-type: none"> • CPUC Technology and Equipment for Clean Heating and Building Initiative for Low Emissions Development programs • CARB Greenhouse Gas Reduction Fund • CARB California Climate Investments program • California Alternative Energy and Advanced Transportation Financing Authority • California Lending for Energy and Environmental Needs Center • Affordable Housing and Sustainable Communities Program • CPUC Energy Saving Assistance Program • CPA and CALeVIP rebates • Federal Inflation Reduction Act • Home Electrification and Energy Efficiency Rebates • Efficient Building Code Adoption Grants • County General Fund |

Table 3-3: Core Measures for Meeting Unincorporated Los Angeles County’s 2030, 2035, and 2045 Greenhouse Gas Emissions Targets (cont.)

| MEASURE | PERFORMANCE GOALS | LEAD | PARTNERS | POTENTIAL FUNDING SOURCES |
|--|---|--|--|---|
| W1: Institutionalize Sustainable Waste Systems and Practices | <p>Increase the total unincorporated Los Angeles County waste diversion rate to 85% by 2030; 90% by 2035; and 95% by 2045.</p> <p>Reduce the disposal of single-use plastics in landfills.</p> <p>Increase Construction and Demolition Ordinance to 70% diversion.</p> <p>Increase percentage of construction and demolition debris reused in new projects (private, public).</p> | PW CSO | DRP DPH LACSD CalRecycle | <ul style="list-style-type: none"> • CalRecycle grants • CEC grants • USDA Water & Waste Disposal Loan & Grant Program |
| T8: Accelerate Freight Decarbonization | <p>Increase the fleetwide percentage of medium- and heavy-duty vehicles in unincorporated Los Angeles County that are ZEVs to 40% by 2030; 60% by 2035; and 90% by 2045.</p> <p>Increase the fleetwide percentage of medium- and heavy-duty vehicles in the County-owned fleet that are ZEVs to 50% by 2030; 70% by 2035; and 95% by 2045.</p> <p>Ensure that 100 percent of the drayage truck fleet is ZEV by 2035.</p> <p>Ensure that 100 percent of sales of medium- and heavy-duty trucks are ZEV by 2045.</p> <p>All new warehouse loading docks must have EVCSs by 2030.</p> <p>All existing warehouse loading docks must have EVCSs by 2030.</p> | PW DRP CSO ISD LASD Fire Parks | SCAQMD CARB SCAG Metro Councils of governments Cities | <ul style="list-style-type: none"> • SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant • SCAQMD Goods Movement Emission Reduction Program • CEC CALeVIP EVSE Rebates • SCE Charge Ready Program EVSE rebates • CARB Advanced Technology Freight Demonstration Projects • CARB Low Carbon Transportation Investments and Air Quality Improvement Program • CARB Clean Vehicle Rebate Project (CVRP) public fleet vehicle rebates • CEC Clean Transportation Program • CPUC statewide transportation electrification infrastructure rebate program • County General Fund Federal Inflation Reduction Act EV tax credits and other financial incentives • Federal New EV Tax Credit • Federal EV Charging Tax Credit • Federal Commercial EV Tax Credit |

Table 3-3: Core Measures for Meeting Unincorporated Los Angeles County’s 2030, 2035, and 2045 Greenhouse Gas Emissions Targets (cont.)

| MEASURE | PERFORMANCE GOALS | LEAD | PARTNERS | POTENTIAL FUNDING SOURCES |
|---------|-------------------|------|----------|---------------------------|
|---------|-------------------|------|----------|---------------------------|

Abbreviations: AHSC = Center, Affordable Housing and Sustainable Communities; Beaches and Harbors = Los Angeles County Department of Beaches & Harbors; C&D = construction and demolition; CAEATFA = California Alternative Energy and Advanced Transportation Financing Authority; CalCAP = California Capital Access Program; CALeVIP = California Electric Vehicle Infrastructure Project; CalRecycle = California Department of Resources Recycling and Recovery; Caltrans = California Department of Transportation; CARB = California Air Resources Board; CDFA = California Department of Food and Agriculture; CEC = California Energy Commission; CPA = Clean Power Alliance; CPUC = California Public Utilities Commission; CSO = Chief Sustainability Office; CVRP = Clean Vehicle Rebate Project; DPH = Department of Public Health; DRP = Department of Regional Planning; ESAP = Energy Saving Assistance Program; EV = electric vehicle; EVCS = electric vehicle charging station(s); EVSE = electric vehicle supply equipment; GGFRF = Greenhouse Gas Reduction Fund; ISD = Internal Services Department; LA 100 = The Los Angeles 100% Renewable Energy Study; LACSD = Los Angeles County Sanitation Districts; LASD = Los Angeles County Sheriff’s Department; Metro = Los Angeles County Metropolitan Transportation Authority; MSRC = Mobile Source Air Pollution Reduction Review Committee; NRDC = National Resources Defense Council; Parks = Los Angeles County Department of Parks and Recreation; PW = Public Works; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SCE = Southern California Edison; SoCalGas = Southern California Gas Company; USDA = U.S. Department of Agriculture; U.S. DOE = U.S. Department of Energy; U.S. EPA = U.S. Environmental Protection Agency; ZEV = zero emission vehicle; ZNE = zero net energy.
 Source: Appendix B: Emissions Forecasting and Reduction Methods.

Costs and Savings

Many GHG emissions reduction actions result in cost savings to residents, businesses, and the County. These savings are achieved through participation in programs aimed at increasing energy efficiency, water efficiency, use of public transportation, and utilization of renewable energy sources. Increased energy and water efficiency provides cost savings in the form of lower utility bills, while the use of public transportation can reduce costs associated with gasoline use and vehicle maintenance costs. Renewable on-site energy generation also provides cost savings to residents and business owners, as these buildings would not need to purchase as much electricity from utility providers. State and federal measures are critical to meeting the County’s emissions reduction goals; however, local programs and policies, as well as choices made by unincorporated Los Angeles County’s residents and businesses, will determine the ability of unincorporated Los Angeles County to achieve its emissions reduction targets.

Many GHG emissions reduction actions will result in cost savings for residents and businesses. There is often a misperception that climate action costs more than inaction. When full-cost accounting is conducted and understood, in many cases costs are lower for emissions-reducing activities (like energy conservation and local rooftop solar electricity generation) and much higher for emissions-producing activities (on average, charging an electric car costs *half* of what it costs to refuel a comparable gas-powered car).^{23,24} In addition, there will be broader regional indirect cost savings from implementing the 2045 CAP’s measures and actions such as potentially reduced climate-induced disasters (like heat waves, wildfires, and sea level rise) and associated cost recovery.

²³ California Air Resources Board. 2023. Cars and Light-Trucks are Going Zero—Frequently Asked Questions. Available: <https://ww2.arb.ca.gov/resources/documents/cars-and-light-trucks-are-going-zero-frequently-asked-questions>. Accessed in February 2023.

²⁴ While electricity costs vary, the average price in California is about 18 cents per kilowatt-hour (kWh). At this price, charging an electric car such as the Nissan LEAF with a 40-kWh battery with a 150-mile range would cost about \$7 to fully charge. Meanwhile, fueling a 25-miles-per-gallon gas vehicle at a gas price of \$3.70 per gallon would cost about \$22 for enough gas to drive approximately 150 miles. (Drive Clean. 2021. Electric Car Charging Overview. Available: <https://driveclean.ca.gov/electric-car-charging>. Accessed February 2023.)

The Path to Carbon Neutrality

AB 1279 mandates that by 2045, the State of California must achieve net zero GHG emissions and reduce anthropogenic GHG emissions to 85 percent below 1990 levels. In December 2022, CARB adopted the 2022 Scoping Plan, which lays out the sector-by-sector road map for California to achieve carbon neutrality by 2045 or earlier. The 2045 CAP aligns with AB 1279 and the 2022 Scoping Plan through its 2045 **target** of reducing unincorporated Los Angeles County's emissions to 85 percent below 1990 levels and its **aspirational goal** of carbon neutrality by 2045. As defined by AB 1279, CARB, and the 2045 CAP, carbon neutrality and net zero GHG emissions are equivalent, and mean that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of CO₂ that is stored, both in natural sinks and through mechanical sequestration.²⁵ To achieve carbon neutrality, the County must leverage its influence as a climate leader, collaborating with other local jurisdictions as well as the private, institutional, and nonprofit sectors. Recognizing that no single entity has direct control over communitywide GHG emissions, a collaborative approach is essential to realize equitable and sustainable climate actions for a carbon neutral Los Angeles County.

The 2045 CAP provides a road map for successfully achieving both the 2030 and 2035 targets by a substantial margin along with the 2045 target. The 2045 CAP places unincorporated Los Angeles County on a trend that aims for carbon neutrality by 2045. However, as illustrated in Figure 3-1, successful implementation of the 2045 CAP alone will not be enough for unincorporated Los Angeles County to achieve this aspirational goal of carbon neutrality. As indicated in Table 3-2, even with CAP implementation, there will still be approximately 850,000 MTCO₂e of residual emissions in 2045. These emissions will originate from buildings and energy industries that can reduce but cannot eliminate emissions from natural gas use (approximately 170,000 MTCO₂e), use of light-duty vehicles and heavy-duty trucks (approximately 190,000 MTCO₂e), fluorinated products/product use (approximately 285,000 MTCO₂e), solid waste disposal (approximately 86,000 MTCO₂e), wastewater treatment (approximately 73,000 MTCO₂e), miscellaneous other sources (approximately 32,000 MTCO₂e), off-road equipment use (approximately 27,000 MTCO₂e), and fertilizer use (approximately 24,000 MTCO₂e).

Figure 3-3 depicts unincorporated Los Angeles County's residual GHG emissions in 2045 with implementation of the 2045 CAP for each major sector. Total residual emissions are approximately 850,000 MTCO₂e.

²⁵ California Health and Safety Code Section 38562.2.

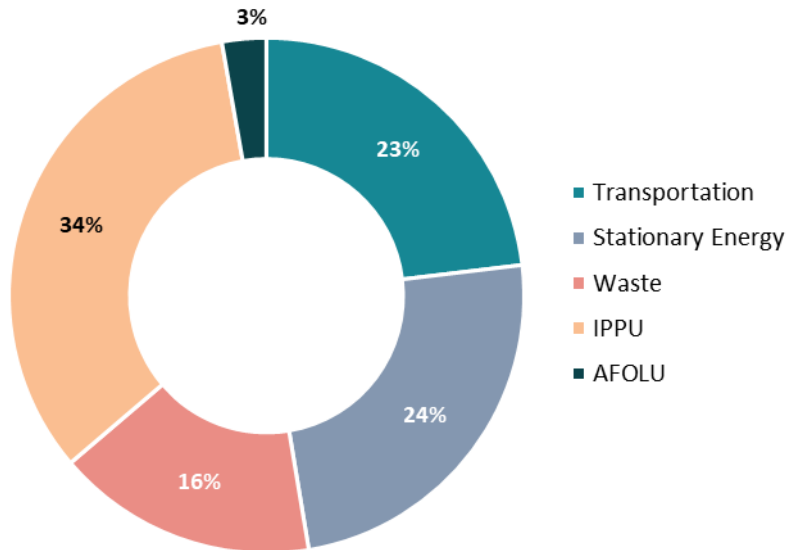


Figure 3-3: Residual 2045 Communitywide Greenhouse Gas Emissions with 2045 Climate Action Plan Implementation

Source: Appendix B: Emissions Forecasting and Reduction Methods.

The County expects that new state regulations to be adopted in the next 20–25 years will further reduce GHG emissions and that technologies will be established and more commercially available over the next 20–25 years that would further reduce these residual emissions. To obtain carbon neutrality by 2045, it is highly likely that the following actions will need to occur in unincorporated Los Angeles County:

- Electrify 90–100 percent of buildings and facilities, including residential, commercial, industrial, and energy industries.
- Achieve zero (or near-zero) waste going to landfills.
- Use ZEVs for more than 90 percent of the Countywide vehicle fleet, including light-duty passenger vehicles and heavy-duty trucks.
- Eliminate all oil and natural gas operations.
- Transition all refrigerants, fire suppressants, and consumer products used within unincorporated Los Angeles County to extremely low (or zero) global warming potential (GWP) substitutes.
- Replace nearly all off-road equipment and off-road vehicles (including locomotives) with electric, green hydrogen,²⁶ or other zero-emission engine technologies.
- Capture all fugitive wastewater treatment process emissions and convert to fuel.
- Eliminate nitrous oxide emissions from fertilizer application.
- Implement statewide, regional, and local carbon removal and carbon capture and sequestration strategies to offset all remaining residual emissions.

²⁶ *Green hydrogen* is hydrogen generated by renewable energy or from low-carbon power, and has significantly lower carbon emissions than traditional hydrogen, which is produced by steam reforming of natural gas.

If the residual emissions, shown in Figure 3-1, cannot be eliminated through new regulations or technologies, the County will consider future implementation of carbon removal strategies (such as carbon capture and sequestration and direct air capture), along with future implementation of a carbon offsets/credits program, following completion of a feasibility study, to achieve carbon neutrality by 2045. Evolving state regulations, programs, and financial incentives will provide new opportunities for unincorporated Los Angeles County to counteract any residual emissions. For example, almost \$9 billion in carbon capture and sequestration support was included in the \$1 trillion Infrastructure Investment and Jobs Act of 2021, which includes funding to establish four direct air capture hubs. As another example, SB 27 of 2021 will provide carbon removal projects via an in-state project registry, which will serve as a database of projects in the state that drive climate action on natural and working lands. Further, SB 905 of 2022 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, or storage (CCUS) and CO₂ removal projects and technology; these projects could also support unincorporated Los Angeles County's aspirations to achieve carbon neutrality.

Alignment with the 2022 Scoping Plan

The 2022 Scoping Plan, adopted by CARB in December 2022, expands on prior scoping plans. This plan responds to more recent legislation, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045 and achieving carbon neutrality²⁷ by 2045 or earlier.²⁸ The 2022 Scoping Plan outlines the strategies the state will implement to achieve carbon neutrality by reducing GHG emissions to meet the anthropogenic target, and by expanding actions to capture and store carbon through the state's natural and working lands and using a variety of mechanical approaches.

The 2022 Scoping Plan also discusses the role of local governments in meeting the state's GHG emissions reduction goals, because local governments have jurisdiction and land use authority related to community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations. The efforts of local governments to reduce GHG emissions within their jurisdictions are critical to achieving the state's long-term climate goals. Furthermore, local governments make critical decisions on how and when to deploy transportation infrastructure and can choose to support transit, walking, bicycling, and neighborhoods that allow people to transition away from cars; they can adopt building ordinances that exceed statewide building code requirements; and they play a critical role in facilitating the rollout of ZEV infrastructure.²⁹ The 2022 Scoping Plan encourages local governments to take

²⁷ *Carbon neutrality* means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of CO₂ that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology "net zero" and the 2022 Scoping Plan uses the terminology "carbon neutrality" or "carbon neutral." For purposes of this 2045 CAP, these terms mean the same thing and are used interchangeably.

²⁸ California Air Resources Board. 2022. *2022 Scoping Plan For Achieving Carbon Neutrality*. November 16, 2022. Available: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf. Accessed in January 2023.

²⁹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

ambitious, coordinated climate actions at the community scale—actions that are consistent with and supportive of the state’s climate goals. These actions could include:

- Develop local CAPs and strategies consistent with the state’s GHG emissions reduction goals.
- Incorporate state-level GHG emissions priorities into local governments’ processes for approving land use and individual plans and individual projects.
- Implement CEQA mitigation, as needed, to reduce GHG emissions associated with new land use development projects.
- Leverage opportunities for regional collaboration.

The 2045 CAP is consistent with CARB’s recommendation for local governments contained in the 2022 Scoping Plan, as demonstrated in Table H-1 of Appendix H.

3.3 Strategies, Measures, and Actions

This section provides an in-depth discussion of the strategies and GHG emissions reduction measures in the 2045 CAP, describing specific implementing actions, performance objectives, anticipated GHG emissions reductions, estimated cost impacts, and implementation responsibilities. **Measures and actions that have been quantified are identified with a ^Q superscript.**

Although the 2045 CAP focuses on reducing unincorporated Los Angeles County emissions, six actions in the energy sector, seven actions in the transportation sector, and three actions in the waste sector specifically aim to reduce GHG emissions associated with the County’s municipal operations. **Actions specifically designed to reduce emissions for County municipal operations are identified with an ^M superscript.**

For estimated up-front capital costs, the following key is used:

- \$: Less than 500,000 U.S. dollars (USD)
- \$\$: 500,000 to 2 million USD
- \$\$\$: 2 million to 15 million USD
- \$\$\$\$: 15 million to 150 million USD
- \$\$\$\$\$: More than 150 million USD

As noted in Chapter 1, in this document, the term “unincorporated Los Angeles County” means the unincorporated areas of Los Angeles County; “Countywide” refers to Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; and “County” refers to County of Los Angeles government.



Energy Supply (ES)

The source of energy used is essential to achieving the County’s goal to reduce GHG emissions associated with energy supply and consumption. This category includes a range of strategies aimed at decarbonizing the energy used throughout unincorporated Los Angeles County. The approach combines eliminating all oil and gas extraction operations in unincorporated Los Angeles County, decarbonizing the energy supply, generating energy on-site through renewables, and load management and peak reductions.

Decarbonizing the energy supply provides multiple co-benefits for residents, employees, and employers. These benefits have not always reached frontline, BIPOC, and disadvantaged communities. For example, residents of affordable housing and multifamily housing have not been well served by local renewable energy programs, such as rooftop solar, leading to cycles of disinvestment and potentially higher energy bills. Concurrently, many of these same residents are already extremely rent and utility burdened, and COVID-19 has exacerbated these problems. The lack of housing and high cost of living in the region mean that increased costs in household expenses could trigger displacement. New and innovative approaches are needed to bring the benefits of renewable energy to all residents while protecting and increasing affordable housing.

Energy Supply (ES) comprises the following strategy and measures:

Strategy 1: Decarbonize the Energy Supply

- Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations ^α
- Measure ES2: Procure Zero-Carbon Electricity ^α
- Measure ES3: Increase Renewable Energy Production ^α
- Measure ES4: Increase Energy Resilience
- Measure ES5: Establish GHG Requirements for New Development

**Energy Supply****Strategy 1: Decarbonize the Energy Supply****2045 VISION****Phase out oil and gas extraction and provide building energy needs without using fossil fuels****Strategy Description**

Oil and gas extraction is widespread and contributes significant GHG emissions into the atmosphere. These emissions are difficult to monitor and control, so this strategy aims to phase out all oil and gas extraction operations in unincorporated Los Angeles County by 2045. In January 2023, the County Board of Supervisors adopted the Oil Well Ordinance, which prohibits all new oil and gas extraction wells and production facilities in all zones and designates all existing oil and gas extraction activities as nonconforming uses in all zones. An amortization study is currently underway to determine the fastest possible phase-out timeline for all existing oil wells and production facilities. The County currently also requires that within 90 days after the abandonment of any well, the well site shall be restored as nearly as practicable to its original condition.³⁰

Decarbonizing the energy supply requires three complementary components: procuring clean renewable sources of energy, shifting building energy loads for heating and cooking to electricity or renewable fuels rather than fossil fuels, and reducing energy use through energy efficiency actions. The Clean Power Alliance (CPA) enabled the County to transition to a low-carbon energy future at an accelerated pace. The CPA is a community choice aggregation program that offers participants the option to increase the amount of their electricity coming from renewable sources. The County will procure electricity that is generated by 100 percent renewable sources from CPA or other available 100 percent zero-carbon electricity service options (such as SCE's Green Rate program).

This strategy would incentivize new or upgraded energy generation and related infrastructure. Examples of such projects could include distributed generation via solar roofs, community solar, or microgrids (known as "distributed energy resources" [DER]); battery storage and EV charging stations (EVCSs); utility-scale solar photovoltaic (PV) development; and/or energy transmission and subtransmission facilities.

It is not currently possible to quantify the renewable energy potentially facilitated by the 2045 CAP that would be provided by new utility-scale solar projects, or to identify where that demand would be met. The increased demand for renewable energy could be met in a variety of additional ways, other than through new utility-scale solar projects. In particular, the importation of renewable energy into the unincorporated areas by providers such as CPA and the further development of

³⁰ There is a minimum bond amount of \$152,000 per well; the bond must be executed in favor of the County to cover the costs of plugging if the operator fails to do so. All equipment and pipelines not necessary for operation and maintenance of other wells on-site must be removed.

rooftop solar are reasonable, feasible steps on the County's path to meeting its targets and advancing toward its goal of carbon neutrality.

According to CPA's 2022 Integrated Resource Plan (a CPUC proceeding to evaluate long-term grid resource needs), the projected 2030 renewable electricity mix is approximately 23 percent utility-scale solar, 53 percent battery storage, 21 percent onshore wind, and 2 percent hydro; the projected 2035 renewable electricity mix is 30 percent utility-scale solar, 45 percent battery storage, 24 percent onshore wind, and 1 percent hydro.³¹ This demonstrates that utility-scale solar is a relatively small portion of CPA's renewable energy supply mix through 2035. In addition, because of the large number of 100 percent Green Power customers, CPA expects to meet and exceed the State of California's 30 million MTCO₂e GHG targets, even in its lowest renewables case. Note that these projections do not include behind-the-meter distributed energy generation like rooftop solar because DER electricity generation is not supplied by CPA.

The County's strategy to shift to a renewables-based electricity supply must ensure equitable access to affordable, local, and reliable energy sources. An effort to develop a comprehensive community energy map will identify the geographic opportunities to deploy these distributed energy resources in an equitable manner to help address energy insecurity. Prioritizing distributed energy resources in wildfire-prone communities will provide an alternative to the costly infrastructure upgrades that would be required to maintain uninterrupted power service. Enabling community-shared solar will expand access to local renewable energy for renters and other potential customers.

Where appropriate, microgrids and smart thermostats and controls can be used to manage energy demand, including lowering peak energy demand and dynamically responding to grid conditions. Reducing peak energy demand limits the use of the dirtiest "peaker" plants, limits the need to construct new generation facilities, and reduces the likelihood of power outages due to excessive demand. Installing microgrids combined with solar generation and batteries is a key strategy to support both grid and building resilience. These strategies can help offset the additional demand on electricity supply associated with electrification and can protect buildings from power outages associated with fire and extreme weather events. These strategies can also enable buildings to act as grid assets to support energy resilience, by dynamically optimizing use of renewable resources when they are most abundant.³²

Past and Current County Actions

- In March 2016, the County Board of Supervisors instructed the Department of Regional Planning (DRP) to amend Title 22, the Planning and Zoning Code for unincorporated Los Angeles County, to ensure that oil and gas facilities may no longer operate by right in unincorporated Los Angeles County, and ensure that the regulations reflect best practices and current mitigation methods and technologies, minimize environmental impacts, and protect sensitive uses and populations. In 2020 DRP updated the Oil Well Ordinance.

³¹ Clean Power Alliance. 2022. 2022 Integrated Resource Plan (IRP) Introduction. September 22, 2022. Available: <https://cleanpoweralliance.org/wp-content/uploads/2022/09/Item-6-2022-IRP-Introduction.pptx>. Accessed in February 2023.

³² As responsive assets, buildings can ramp energy use up or down, depending on the cost or carbon intensity of the utility generation source. This helps utilities ensure the balanced, flexible supply and demand of high levels of renewables needed to decarbonize the electricity system, resulting in resilient cities, communities, and regions. For more, see <https://rmi.org/our-work/buildings/pathways-to-zero/grid-interactive-energy-efficient-buildings/>.

- In 2017, DRP amended the zoning code to support and facilitate responsible development of small-scale renewable energy systems and utility-scale renewable energy facilities.
- In 2017, the Board of Supervisors approved the creation of a community choice energy program for Los Angeles County known as the Clean Power Alliance. CPA began operating in 2018 and now serves 32 jurisdictions across Los Angeles and Ventura counties, representing 3 million residents. In 2019, all customers in unincorporated Los Angeles County were automatically enrolled in CPA's Clean Energy (50 percent renewable) tier. Since October 2022, all customers in unincorporated Los Angeles County are automatically enrolled in CPA's 100 percent renewable energy option.
- Since October 2022, all residents and businesses in unincorporated Los Angeles County have been receiving 100 percent renewable energy—wind, solar, geothermal—from CPA.
- In September 2020, the Board of Supervisors passed a motion to prepare a comprehensive review of existing County policies, practices, and operations to ensure that there are appropriate backup systems to support unincorporated Los Angeles County residents in times of emergencies including, at a minimum, a specific focus on equity. The report was published in February 2021.
- In February 2022, the Board of Supervisors passed a motion to study the feasibility of establishing Zero Net Energy (ZNE) standards for major development projects and other large-scale development.
- In March 2022, the Board of Supervisors passed a motion to ensure the equitable decarbonization of buildings by conducting a stakeholder engagement process, studying energy resource and infrastructure needs, and seeking funding.
- In April 2022, the Internal Services Department completed a feasibility study for energy resilience and microgrids at the East L.A. Civic Center.
- In September 2022, the Board of Supervisors voted to phase out oil and gas drilling and ban all new drill sites in unincorporated Los Angeles County areas. The ordinance prohibits new oil wells and production facilities in all zones, designates existing oil wells and production facilities as nonconforming uses in all zones, and establishes regulations for existing oil wells and production facilities. The phase-out will close more than 1,600 active and idle oil and gas wells in unincorporated Los Angeles County. A timetable for the phase-out will be decided after the County determines the fastest way to legally shut down the wells.
- On January 24, 2023, the Board of Supervisors adopted the Oil Well Ordinance, which becomes effective after 30 days.
- As of February 2023, the County is conducting an amortization study to determine the fastest possible phase-out timeline for all existing oil wells and production facilities. This study will consider the legal, environmental, political, and cost considerations of the phase-out. The amortization study will guide the strategy to phase out oil and gas extractions and facilities.

Alignment with State Initiatives

- SB 1137: Prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions.
- SB 100: By 2045, 100 percent of electricity is sourced from zero-carbon resources.
- SB 1020: Adds interim renewable energy and zero-carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040; accelerates the timeline required to have 100 percent renewable energy and zero-carbon energy procured to serve state agencies from the original target year of 2045 to 2035.
- SB 1075: Requires CARB, by June 1, 2024, to prepare an evaluation that includes policy recommendations regarding the deployment, development, and use of hydrogen, and specifically the use of green hydrogen, in California.
- California Energy Efficiency Strategic Plan: A roadmap to achieve maximum energy savings across all major groups and sectors in California. This comprehensive Plan is the state's first integrated framework of goals and strategies for saving energy, covering government, utility, and private sector actions, and holds energy efficiency to its role as the highest priority resource in meeting California's energy needs.
- California Green Building Standards Code (CALGreen Code) (Title 24 Building Code): The CALGreen Code establishes mandatory measures for new residential and nonresidential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.
- Renewables Portfolio Standard: A statewide mandate to increase the proportion of electricity from renewable sources. The program sets continuously escalating renewable energy procurement requirements for the state's load-serving entities. Generation must be procured from RPS-certified facilities (see SB 100 and SB 1020 above).
- SB 905 of 2002: Requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and CO₂ removal projects and technology.



Energy Supply

Strategy 1: Decarbonize the Energy Supply

MEASURE ES1: Develop a Sunset Strategy for All Oil and Gas Operations ^Q

**Annual GHG Emissions
REDUCTIONS**

By 2030: 28,368

By 2035: 40,178

By 2045: 52,148

(units = MTCO_{2e})

Estimated COST

\$-\$\$\$\$

PERFORMANCE OBJECTIVES*

Reduce oil and gas operations compared to 2015 levels by:

- 40 percent by 2030
- 60 percent by 2035
- 80 percent by 2045

Examine all active, idle, and abandoned oil wells for fugitive emissions of GHGs.

Conduct carbon removal feasibility study.

** The performance objectives provided here serve as a general metric and may be refined upon completion of the Oil Well Amortization Study.*

DESCRIPTION

Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

ES1.1—Collaborate with other local jurisdictions and utilities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.

ES1.2—Develop a policy that requires the examination of idle and abandoned oil wells for fugitive emissions of GHGs to develop and implement a closure plan. Coordinate with federal and state agencies collecting fugitive emissions data.

ES1.3—Develop a carbon removal strategy, including direct air capture and carbon capture and sequestration (CCS).



Energy Supply

Strategy 1: Decarbonize the Energy Supply

MEASURE ES2: Procure Zero-Carbon Electricity (Core) ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 477,188

By 2035: 317,915

By 2045: 0*

(units = MTCO₂e)

Estimated COST

\$–\$\$

PERFORMANCE OBJECTIVES

Participate in CPA's Green Power option, SCE's Green Rate option, or other available 100 percent zero-carbon electricity service:

- 100 percent municipal participation by 2025
- 96 percent community participation by 2030 (approximately 4 percent opt-out rate)

* There are zero GHG emissions reductions in 2045 because the State of California's Renewables Portfolio Standard requires 100 percent carbon-free electricity sources by 2045, and the implementation of the Renewables Portfolio Standard is accounted for in the Adjusted BAU scenario.

DESCRIPTION

Supplying unincorporated Los Angeles County's power demand with zero-carbon electricity³³ is critical to achieving significant GHG emissions reductions. The Clean Power Alliance (CPA) is a nonprofit and community choice energy provider that currently serves 32 communities across Southern California.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

ES2.1—Transition all County facilities within unincorporated areas to CPA's 100% Green Power option, SCE's 100% Green Rate option, or other available 100% renewable electricity service.^M

ES2.2—Complete enrollment of the community in CPA's 100% Green Power option or SCE's Green Rate option.

³³ Zero-carbon electricity means energy resources that either qualify as "renewable" in the most recent Renewables Portfolio Standard Eligibility Guidebook or generate zero GHG emissions on-site.



Energy Supply

Strategy 1: Decarbonize the Energy Supply

MEASURE ES3: Increase Renewable Energy Production ^Q

Annual GHG Emissions REDUCTIONS*

By 2030: 5,919

By 2035: 5,219

By 2045: 0[#]

(units = MTCO₂e)

Estimated COST

\$-\$\$\$

PERFORMANCE OBJECTIVES

Install rooftop solar PV on all existing single-family residential homes and multifamily residential buildings:

- 20 percent by 2030
- 25 percent by 2035
- 35 percent by 2045

Install rooftop solar PV on all existing commercial buildings:

- 15 percent by 2030
- 22 percent by 2035
- 32 percent by 2045

Install rooftop solar PV on all new multifamily residential buildings:

- 80 percent by 2030
- 85 percent by 2035
- 95 percent by 2045

Install rooftop solar PV on all new commercial buildings:

- 40 percent by 2030
- 50 percent by 2035
- 70 percent by 2045

DESCRIPTION

Expand local solar power generation on existing and new development and for County projects.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

ES3.1—Require rooftop solar PV for all new development.

ES3.2—Install rooftop solar PV at existing buildings.

ES3.3—Identify and install solar PV systems at existing viable County facilities and properties. ^M

ES3.4—Explore the feasibility to install community-shared solar facilities on County properties where opportunities exist. ^M

ES3.5—Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings.

ES3.6—Streamline and prioritize permitting for solar and battery storage projects.

**Energy Supply****Strategy 1: Decarbonize the Energy Supply**

MEASURE ES3: Increase Renewable Energy Production ^Q

Install 20,000 kW of solar PV at LA County facilities by 2030.

Install rooftop solar PV at all affordable housing developments.

** These GHG emissions reductions assume implementation of Measure ES2 occurs first; the vast majority of emission reductions from carbon-free electricity sources are accounted for in Measure ES2. In reality, emission reductions for these two measures will be more evenly shared.*

There are zero GHG emissions reductions in 2045 because the State of California's Renewables Portfolio Standard requires 100 percent carbon-free electricity sources by 2045, and the implementation of the Renewables Portfolio Standard is accounted for in the Adjusted BAU scenario.



Energy Supply

Strategy 1: Decarbonize the Energy Supply

MEASURE ES4: Increase Energy Resilience

Annual GHG Emissions REDUCTIONS

Not quantified (supporting measure)

Estimated COST

\$-\$\$\$

PERFORMANCE OBJECTIVES

- Achieve community electricity storage capacity equal to the communitywide 24-hour average usage by 2035/2045.
- Achieve community electricity generation capacity equal to the communitywide 24-hour average usage by 2035/2045.
- Establish a community resilience hub program to equip community-serving County facilities (e.g., libraries, rec centers, senior centers).
- Provide solar and battery systems sufficient to support emergency cooling and other emergency functions. Partner with the local community for implementation.
- Locate at least one hub in each County district, with a focus on vulnerable populations.
- Install microgrids based on a feasibility study.
- Obtain a grant and establish a program to support an energy efficiency and assurance program for facilities that are large energy users and support critical community functions.

DESCRIPTION

Expand energy storage and microgrids throughout the community and for County operations.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

ES4.1—Develop a program to deploy community resilience hubs³⁴ at scale.

ES4.2—Invest in energy storage and microgrids at critical County facilities through CPA's Power Ready Program. ^M

ES4.3—Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency.

ES4.4—Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management, peak shaving, and load shifting to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants.

ES4.5—Develop a Countywide program to promote energy efficiency and resilience measures in facilities providing critical community services.

³⁴ According to the Urban Sustainability Directors Network, resilience hubs are “are community-serving facilities augmented to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life. Hubs provide an opportunity to effectively work at the nexus of community resilience, emergency management, climate change mitigation, and social equity while providing opportunities for communities to become more self-determining, socially connected, and successful before, during, and after disruptions.”



Energy Supply

Strategy 1: Decarbonize the Energy Supply

MEASURE ES5: Establish GHG Requirements for New Development

Annual GHG Emissions REDUCTIONS

Not quantified (supporting measure)

Estimated COST

\$--\$\$

PERFORMANCE OBJECTIVES

- All new development that does not require a General Plan amendment and opts to use CEQA streamlining for GHG impacts shall be consistent with the 2045 CAP.
- Develop reach codes, ordinances, and conditions of approval as needed.

DESCRIPTION

Develop and implement requirements for new projects choosing to streamline their GHG impacts analysis under CEQA to ensure that such new development is consistent with the 2045 CAP milestone targets for 2030, 2035, and 2045. These requirements include applicant completion of a 2045 CAP CEQA streamlining checklist for non-CEQA-exempt new development requiring discretionary approvals to demonstrate consistency with the 2045 CAP and thereby streamline environmental review of their GHG impacts using the 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b).

To demonstrate compliance with the 2045 CAP CEQA streamlining requirements, all projects that do not screen out of the 2045 CAP consistency review process must implement either (1) all feasible applicable checklist measures or (2) for infeasible checklist measures, alternative project emission reduction measures. The project review checklist will be used for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for streamlined project-specific CEQA GHG analysis.

In addition, the County will assess the feasibility of developing a GHG offsets/credit program to create a pathway toward achieving the aspirational 2045 goal of carbon neutrality. For more information, see Chapter 4, *Implementation and Monitoring*.

**Energy Supply****Strategy 1: Decarbonize the Energy Supply**

MEASURE ES5: Establish GHG Requirements for New Development**IMPLEMENTING ACTIONS**

For tracking metrics and implementation details, see Appendix E.

ES5.1—Identify new requirements for new development, including reach codes,³⁵ ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability.

ES5.2—Implement the 2045 CAP CEQA streamlining checklist for new development to demonstrate consistency with the 2045 CAP’s strategies, measures, and actions for purposes of streamlining environmental review of GHG impacts using the 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b).

ES5.3—Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment.

³⁵ A *reach code* is a local building energy code that “reaches” beyond the state’s minimum requirements for energy use in building design and construction.



Transportation (T)

Activities within the transportation sector are responsible for the majority of GHG emissions in unincorporated Los Angeles County, as the dominant mode of transportation is vehicles that run on fossil fuels. Land use patterns developed over time—including unincorporated Los Angeles County’s road and highway networks, streetscapes, and parking infrastructure—have been designed to prioritize and promote the usage of cars and trucks. The County will address transportation emissions by prioritizing public transportation, walking, biking, and active transit options, and other alternatives to single-occupancy trips. For trips requiring vehicles, the County will focus on advancing zero-emission and near-zero-emission technologies.

Decarbonizing transportation provides many co-benefits for unincorporated Los Angeles County residents, employees, and employers. Many of these benefits have not always reached BIPOC and disadvantaged communities. For example, residents of affordable housing and multifamily housing have not been well served by EV charging infrastructure and low-cost charging opportunities. This can lead to cycles of disinvestment and more expensive gas and electricity bills. The lack of housing and high cost of living in unincorporated Los Angeles County mean that increased costs in transportation expenses could lead to displacement. New and innovative approaches are needed to bring the benefits of EV charging infrastructure and ZEVs to all residents while protecting and increasing affordable housing.

Transportation (T) comprises the following strategies and measures:

Strategy 2: Increase Densities and Diversity of Land Uses Near Transit

- Measure T1: Increase Density Near High-Quality Transit Areas ^q
- Measure T2: Develop Land Use Plans Addressing Jobs/Housing Balance and Increase Mixed Use ^q

Strategy 3: Reduce Single-Occupancy Vehicle Trips

- Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips ^q
- Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation ^q
- Measure T5: Limit and Remove Parking Minimums

Strategy 4: Institutionalize Low-Carbon Transportation

- Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales ^Q
- Measure T7: Electrify County Fleet Vehicles ^Q
- Measure T8: Accelerate Freight Decarbonization ^Q
- Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment ^Q

**Transportation****Strategy 2: Increase Densities and Diversity of Land Uses Near Transit****2045 VISION**

Increased housing opportunities with close and convenient access to destinations such as shopping and employment centers

Strategy Description

This strategy focuses on coordinating land use development that leads to outcomes associated with reduced VMT, such as increased densities near transit, jobs-housing balance, and strategically located land uses that can reduce travel distances for many trip purposes.

Past and Current County Actions

- As of 2021, the County has adopted Transit Oriented District plans for three unincorporated Los Angeles County communities: Willowbrook, West Carson, and West Athens–Westmont.
- In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that include but are not limited to the Rezoning Program, Residential Parking Program, Rent Stabilization Ordinance, and Affordable Housing and Sustainable Communities Program.

Alignment with State and Regional Initiatives

- Connect SoCal, SCAG's Regional Transportation Plan/Sustainable Communities Strategy for achieving a 13 percent reduction in per capita passenger vehicle GHG emissions relative to 2005, as required by SB 375.
- The Advanced Clean Cars II Program requires that 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035 and that 100 percent of medium- and heavy-duty vehicles in the state be zero-emission by 2045 and by 2035 for drayage trucks.



Transportation

Strategy 2: Increase Densities and Diversity of Land Uses Near Transit

MEASURE T1: Increase Density Near High-Quality Transit Areas ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 27,357

By 2035: 26,019

By 2045: 25,276

(units = MTCO_{2e})

Estimated COST

\$–\$\$

PERFORMANCE OBJECTIVES

Increase in residential density:

- Implement and complete Housing Element Update rezoning programs to achieve the minimum densities.
- Achieve a minimum of 20 dwelling units (DU) per acre (maximum of 30–150 DU per acre) for HQTAs.
- Locate a majority of residential and employment centers in unincorporated Los Angeles County within 1 mile of an HQTA.
- Achieve a 27 percent increase in DUs within HQTAs.

DESCRIPTION

Increase housing opportunities that are affordable and near transit, to reduce VMT.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T1.1—Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure.

T1.2—Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing.



Transportation

Strategy 2: Increase Densities and Diversity of Land Uses Near Transit

MEASURE T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 39,184

By 2035: 37,267

By 2045: 36,204

(units = MTCO₂e)

Estimated COST

\$\$

PERFORMANCE OBJECTIVES

- By 2030, achieve a job density of 300 jobs per acre.
- For communities with an imbalance of jobs/housing (± 20 percent), develop community plans to identify and quantify strategies for bringing that imbalance below 20 percent.

DESCRIPTION

Increasing density and the mix of land uses can help reduce single-occupancy trips, the number of trips, and trip lengths.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T2.1—Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT.

**Transportation****Strategy 3: Reduce Single-Occupancy Vehicle Trips****2045 VISION****A proliferation of travel options that do not require personal vehicle ownership****Strategy Description**

This strategy focuses on development of transportation networks that increase the accessibility, comfort, and convenience of active travel modes to help reduce trips made in single-occupancy vehicles.

Past and Current County Actions

- Throughout unincorporated Los Angeles County, 64 miles of bikeways were created between 2012 and 2021, with 3.65 miles in progress. An additional 36 miles of bikeway are planned to be completed by 2025, with 18 miles scheduled to be completed thereafter.
- The County is working with the Los Angeles County Metropolitan Transportation Authority (Metro) on a transit program that prioritizes public transit by creating bus priority lanes, improving transit facilities, reducing transit-passenger time, and providing bicycle parking near transit stations.
- The Countywide Traffic Signal Synchronization Program, instituted in 1988, includes upgrading traffic signal infrastructure and timing to allow for signal synchronization, implementation of pedestrian and bicycle improvements, and improvement of transit operations through more consistent travel times.
- The Department of Regional Planning is currently working on a study to inform the update to parking standards for multifamily residential development with the goal of reducing barriers to investments in multifamily housing production, reducing the overall cost of housing, and helping to lower VMT. After the conclusion of the study, recommendations will be finalized and an ordinance will be prepared to amend the zoning code. Public hearings on the ordinance are anticipated in 2023.

Alignment with State and Regional Initiatives

- Connect SoCal, SCAG's Regional Transportation Plan/Sustainable Communities Strategy for achieving a 13 percent reduction in per capita passenger vehicle GHG emissions relative to 2005, as required by SB 375.



Transportation

Strategy 3: Reduce Single-Occupancy Vehicle Trips

MEASURE T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips ^Q

Annual GHG Emissions

REDUCTIONS

By 2030: 0

By 2035: 2,811

By 2045: 2,730

(units = MTCO_{2e})

Estimated COST

\$\$\$-\$\$\$\$\$

PERFORMANCE OBJECTIVES

- Increase bikeway miles 300 percent by 2035.
- Implement the County’s Bicycle Master Plan.
- Complete updates to the County’s Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years.

DESCRIPTION

Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T3.1—Create a more connected and safer bikeway network by expanding bikeway facilities and implementing protected and separated lanes.

T3.2—Implement and regularly update the County’s Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans.

T3.3—Collaborate with Metro and other transit providers to enhance pedestrian and bicycle environments through energy efficient lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro’s Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program.



Transportation

Strategy 3: Reduce Single-Occupancy Vehicle Trips

MEASURE T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation ^Q

Annual GHG Emissions

REDUCTIONS

By 2030: 11,465

By 2035: 10,904

By 2045: 10,593

(units = MTCO_{2e})

Estimated COST

\$-\$\$\$\$\$

PERFORMANCE OBJECTIVES

- By 2030, double transit service hours from 560,000 to 1.12 million.
- By 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares.
- By 2030, ensure that 75 percent of unincorporated Los Angeles County residents live within one-half mile of shuttle or mobility service.

DESCRIPTION

Transit service, micro mobility services (such as bike-share, scooter-share, and drone deliveries), and access to these transportation options can help reduce VMT.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T4.1—Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit,³⁶ autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles.

T4.2—Collaborate with Metro and other transit providers to install bus-only lanes and/or signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate.

T4.3—Collaborate with Metro and other transit providers to develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit.

T4.4—Collaborate with Metro and other transit providers to set aside maintenance funds to ensure that public transit facilities, including stations and stops, are safe and clean to enhance the transit experience and increase ridership.

T4.5—Collaborate with Metro and other transit providers to develop and implement a transportation demand management (TDM) ordinance that requires future development projects to incorporate measures such as subsidized transit passes and car share.

T4.6—Offer free and/or discounted transit passes for students, youth, seniors, people with disabilities, and low-income populations.

³⁶ *Micro transit* is public or private multi-passenger transportation services that serve passengers using dynamically generated routes; they provide transit-like service on a smaller, more flexible scale.

**Transportation****Strategy 3: Reduce Single-Occupancy Vehicle Trips**

MEASURE T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation ^Q

T4.7—Expand and improve the County's Telecommuting Policy, using data gathered through the alternative work program.

T4.8—Establish temporary and permanent car-free areas.

T4.9—Develop a VMT bank or exchange program.

T4.10—Collaborate with Metro and other transit providers to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission.



Transportation

Strategy 3: Reduce Single-Occupancy Vehicle Trips

MEASURE T5: Limit and Remove Parking Minimums

Annual GHG Emissions

REDUCTIONS

Not quantified (supporting measure)

Estimated COST

\$\$-\$\$\$

PERFORMANCE OBJECTIVES

- Reduce parking stipulations to reduce parking supply and encourage transit use.
- Unbundle parking costs to reflect cost of parking.
- Implement parking pricing to encourage “park-once” behavior.

DESCRIPTION

Parking strategies such as parking maximums, unbundling parking, or market-price parking can help reduce VMT.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T5.1—Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, development of planning strategies for transitioning land dedicated to parking to alternative transit and public uses, and incentives for developers to provide less than maximum allowable parking.



Transportation

Strategy 4: Institutionalize Low-Carbon Transportation

2045 VISION

100 percent of all vehicles in unincorporated Los Angeles County have zero carbon emissions

Strategy Description

Motorized vehicles that are needed for travel must transition from internal combustion engines to zero-carbon and near-zero-carbon technologies, such as electric vehicles (EVs) and ZEVs. Expanding access to charging infrastructure will address a key barrier to the adoption of EVs. The County will work to provide access to clean transportation by developing programs that include e-bikes, zero-emission buses and shuttles, and electrified trains. The County will also endeavor to install EVCSs at County properties and in the public right-of-way, require new development to install EVCSs, and develop incentives and requirements for existing buildings to install EVCSs.

This strategy also aims to reduce emissions from diesel- and gasoline- powered off-road equipment, including construction, landscaping, recreational, and commercial and industrial equipment. This strategy increases the use of electric-powered equipment by establishing a goal such that a portion of all equipment is electric-powered. Other technologies include green hydrogen fuel cell and natural gas.

Past and Current County Actions

- In 2008, the Department of Public Works (PW) began the implementation of a three-pronged sustainable pavement treatment approach.
- As of April 2022, the County has deployed approximately 750 EV charging ports across County facilities to support the electrification of its fleet and to increase electric vehicle supply equipment (EVSE) access to employees and the public.
- In 2016, the EV Infrastructure Ordinance was adopted; this ordinance provides an expedited and streamlined permitting process for EV charging infrastructure.
- The Idling Reduction Ordinance, adopted in 2018, amended the zoning code to require signs in on-site loading areas to encourage the reduction of vehicle idling.
- In 2021, the County installed 315 new PowerFlex-networked charging stations with advanced managed charging capability.
- In April 2021, the Board of Supervisors adopted a revised fleet policy that requires the purchase of ZEVs for the County when replacing all County vehicles, to the extent that they are available and meet operational needs.

Alignment with State Initiatives

- Governor's EO B-48-15 (5 million ZEVs on California roads by 2030) and EO N-79-20 (100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035).



Transportation

Strategy 4: Institutionalize Low-Carbon Transportation

MEASURE T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel

Sales (Core) ^Q

Annual GHG Emissions

REDUCTIONS

By 2030: 482,515

By 2035: 820,125

By 2045: 1,535,101

(units = MTCO_{2e})

Estimated COST

\$-\$\$\$

PERFORMANCE OBJECTIVES

Increase the fleetwide percentage of light-duty vehicles in unincorporated Los Angeles County that are ZEVs to:

- 30 percent by 2030
- 50 percent by 2035
- 90 percent by 2045

Increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to:

- 68 percent by 2030
- 100 percent by 2035

Install the following total number of new public and private shared EVCSs:

- 37,000 by 2030
- 74,000 by 2035
- 140,000 by 2045

DESCRIPTION

Increase unincorporated Los Angeles County's ZEV market share and vehicle penetration to the maximum extent feasible to replace internal combustion engine vehicles. Set targets for reducing total gasoline and diesel vehicle fuel sales.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T6.1—Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure.

T6.2—Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County.

T6.3—Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces.

T6.4—Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities.

T6.5—Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction.

**Transportation****Strategy 4: Institutionalize Low-Carbon Transportation**

MEASURE T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales (Core) ^Q

Install the following total number of new EVCSs at County facilities and properties:

- 5,000 by 2030
- 10,000 by 2035
- 25,000 by 2045

T6.6—Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options.

T6.7—Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100 percent green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources.



Transportation

Strategy 4: Institutionalize Low-Carbon Transportation

MEASURE T7: Electrify County Fleet Vehicles ^{Q M}

**Annual GHG Emissions
REDUCTIONS**

By 2030: 29,743

By 2035: 24,335

By 2045: 10,119

(units = MTCO_{2e})

Estimated COST

\$\$\$–\$\$\$\$

PERFORMANCE OBJECTIVES

Electrify the County bus and shuttle vehicle fleets by 2035.

Increase the fleetwide percentage of light-duty vehicles in the County–owned fleet that are ZEVs to:

- 35 percent by 2030
- 60 percent by 2035
- 100 percent by 2045

Support the state’s goal that all new light-duty vehicle fleet purchases, with certain exceptions, will be ZEVs.

DESCRIPTION

Electrify the County bus, shuttle, and light-duty vehicle fleets.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T7.1—Electrify the County bus and shuttle vehicle fleets and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. ^M

T7.2—Electrify light-duty County fleet vehicles. ^M



Transportation

Strategy 4: Institutionalize Low-Carbon Transportation

MEASURE T8: Accelerate Freight Decarbonization (Core) ^Q

Annual GHG Emissions

REDUCTIONS

By 2030: 86,168

By 2035: 103,528

By 2045: 176,638

(units = MTCO_{2e})

Estimated COST

\$-\$\$\$\$

PERFORMANCE OBJECTIVES

Increase the fleetwide percentage of medium- and heavy-duty vehicles in unincorporated Los Angeles County that are ZEVs to:

- 40 percent by 2030
- 60 percent by 2035
- 90 percent by 2045

Increase the fleetwide percentage of medium- and heavy-duty vehicles in the County-owned fleet that are ZEVs to:

- 50 percent by 2030
- 70 percent by 2035
- 95 percent by 2045

Ensure that 100 percent of the drayage truck fleet is ZEV by 2035.

Ensure that 100 percent of sales of medium- and heavy-duty trucks are ZEV by 2045.

Require that all new warehouse loading docks have EVCSs by 2030.

Require that all existing warehouse loading docks have EVCSs by 2030.

DESCRIPTION

Incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T8.1—Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones.

T8.2—Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure.

T8.3—Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale.

T8.4—Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles.

T8.5—Electrify the County medium- and heavy-duty vehicle fleet.



Transportation

Strategy 4: Institutionalize Low-Carbon Transportation

MEASURE T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment ^Q

Annual GHG Emissions

REDUCTIONS

By 2030: 8,373

By 2035: 21,819

By 2045: 44,964

(units = MTCO₂e)

GHG BENEFIT-COST RATIO

\$–\$\$

PERFORMANCE OBJECTIVES

Increase the fleetwide percentage of off-road fleet and equipment in unincorporated Los Angeles County that are ZEVs to:

- 20 percent by 2030
- 50 percent by 2035
- 95 percent by 2045

Increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in the unincorporated Los Angeles County that are ZEVs to:

- 50 percent by 2030
- 75 percent by 2035
- 100 percent by 2045

DESCRIPTION

Phase out the use of gas- and diesel-powered small (≤25 horsepower) off-road equipment and increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

T9.1—Partner with the South Coast Air Quality Management District and Antelope Valley Air Quality Management District to increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.

T9.2—Identify types of ZEV and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval.

T9.3—Require, to the maximum extent feasible, the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment for County projects. ^M



Building Energy and Water (E)

Buildings are central in the County’s approach to reducing GHG emissions associated with energy supply and consumption. This category includes a range of strategies aimed at reducing energy use in buildings, decarbonizing the energy and materials used in buildings, and reducing water consumption. The approach combines increasing energy efficiency, electrifying buildings, replacing fossil fuels with carbon-free and renewable fuel sources, and decarbonizing building materials.³⁷

These actions must apply to both new and existing buildings. A foundational first step for existing buildings is to track and report building energy and water use to raise awareness and highlight opportunities for savings, followed by retrofit programs for efficiency and decarbonization. Green building standards and net zero energy incentives for new developments will significantly reduce GHG emissions. Scaling up energy efficiency programs and developing energy and emissions performance standards for existing and new buildings will reduce overall energy demand and associated GHG emissions, avoiding costly new infrastructure and enabling an easier transition to renewable energy sources and low-/zero-GHG buildings.

Water consumption in unincorporated Los Angeles County has a significant carbon footprint because energy is required to collect, treat, store, and convey water to homes and businesses from distant sources. By prioritizing water conservation programs, expanding the County’s efforts toward water recycling and reuse, and promoting net zero water developments, the County will simultaneously reduce GHG emissions and lessen communitywide dependency on imported water sources.

The Los Angeles County Sanitation Districts (LACSD) provides affordable, high-quality recycled water to public and private water suppliers to help meet the water supply needs for more than five

³⁷ In *California Restaurant Association v. City of Berkeley*, No. 21-16278, the Ninth Circuit Court of Appeals found Berkeley’s natural gas ban preempted by the federal Energy Policy and Conservation Act (EPCA). Despite the court’s broad statements, the CRA decision only addressed a single type of approach to building electrification: a non-building code prohibition on gas infrastructure in new construction (Berkeley’s ordinance leveraged “police powers” to amend the City’s Health and Safety Code). The CRA decision did not address other approaches used by local governments in the Ninth Circuit such as air quality standards that regulate air pollutant emissions from appliances, reach codes that encourage all-electric construction (for example, the California Green Building Standards Code—Part 11, Title 24, California Code of Regulations), and policies that require reductions in GHG emissions or air pollution from new construction that provide for flexibility for achieving such requirements. On May 31, 2023, Berkeley’s City Attorney filed a petition for an “en banc” rehearing with the full 11-judge panel on the U.S. Court of Appeals for the Ninth Circuit. The Biden Administration filed an Amicus Brief in support of the City of Berkeley’s ordinance, stating that the panel’s opinion is flawed by wrongly interpreted the preemption provision of EPCA. It is not known how the final ruling will impact various local government approaches to electrification, including all-electric building code amendments and air emissions standards. Building performance standards (BPS) are being developed in response to the ruling, such as air emission standards for buildings similar to the state of New York’s Local Law 97. Performance standards such as this are anticipated to achieve similar GHG reduction results as building electrification without restricting fuel type.

million people within the Sanitation Districts' service area. The recycled water is beneficially reused for industrial, commercial, and recreational applications; groundwater replenishment; agriculture; and the irrigation of parks, schools, golf courses, roadways, and nurseries.

Improving the environmental performance of buildings provides multiple co-benefits for occupants. These benefits have not always reached frontline communities. Residents of affordable housing and multifamily housing, in particular, have not been well served by traditional energy retrofit programs, leading to ongoing cycles of disinvestment, higher energy bills, and less healthy indoor air quality. At the same time, many of these same residents are already extremely rent and utility burdened, and COVID-19 has exacerbated these problems. The lack of housing and high cost of living in the region mean that increased costs in household expenses could trigger displacement. New and innovative approaches are needed to bring the benefits of healthy, decarbonized, and resilient buildings to all residents while protecting and increasing affordable housing.

Building Energy and Water (E) comprises the following strategies and measures:

Strategy 5: Decarbonize Buildings

- Measure E1: Decarbonize Existing Buildings ^Q
- Measure E2: Decarbonize New Development ^Q
- Measure E3: Other Decarbonization Actions

Strategy 6: Improve Efficiency of Existing Building Energy Use

- Measure E4: Improve Energy Efficiency of Existing Buildings ^Q

Strategy 7: Conserve Water

- Measure E5: Increase Use of Recycled Water and Graywater Systems
- Measure E6: Reduce Indoor and Outdoor Water Consumption ^Q

What is Building Decarbonization?

Building decarbonization is a framework for reducing GHG emissions associated with buildings.

Building emissions come from:

DIRECT SOURCES:

- Combustion of fuels for heating and cooking (gas stoves, gas heaters).
- Gas leaks (gas lines in buildings, unlit pilot lights).
- Hydrofluorocarbon leaks (from refrigerators and other compressor-based systems for space conditioning and water heating, during use and disposal).

INDIRECT SOURCES:

- Generation of the electricity used in buildings.

Ways to decarbonize buildings:

1. Replace gas-fueled appliances with efficient electric alternatives.
2. Continue decarbonizing electricity by growing the low-carbon share of the generation portfolio.
3. Foster energy efficiency through incentive programs, appliance standards, building standards, research, and financing.
4. Transition to using better refrigerants and reduce associated leakage.
5. Grow distributed energy resources such as rooftop solar PV and on-site battery storage.
6. Decarbonize the gas system by displacing natural gas with renewable gas produced from carbon-free electricity or existing waste streams.
7. Give building owners and occupants incentives to shift their electricity use in response to the timing of energy costs, GHG emissions intensity, or electricity grid emergencies.

**Building Energy and Water****Strategy 5: Decarbonize Buildings****2045 VISION****Zero use of fossil fuels to provide building energy needs****Strategy Description**

As noted in Strategy 1, building decarbonization requires two complementary components: procuring clean, renewable sources of energy and shifting building energy loads for heating and cooking to electricity or renewable fuels rather than fossil fuels. In addition to renewable electricity purchased through the CPA over the grid, distributed, on-site renewable energy can be promoted in a variety of ways. Because grid-supplied energy is now cleaner than on-site natural gas use, building electrification and, to some extent, the use of biomethane and other renewable fuels, are key to decarbonization.

Past and Current County Actions

- In 2017, LACSD partnered with the Metropolitan Water District of Southern California to explore the potential of a water purification project called Pure Water Southern California (formerly known as the Regional Recycled Water Program) at the Joint Water Pollution Control Plant, located in the City of Carson. At project completion, up to 150 million gallons per day (mgd) of water would be produced to recharge various regional groundwater basins and/or supplement regional water supply sources. The NOP for the project was published in September 2022.
- In 2019, the County adopted the 2020 County of Los Angeles Green Building Standards Code.
- In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that facilitate construction and maintenance of quality housing to enhance livability of neighborhoods.
- In February 2022, the County Board of Supervisors passed a motion to study the feasibility of establishing ZNE standards for major development projects and other large-scale development.
- In March 2022, the Board of Supervisors passed a motion to ensure the equitable decarbonization of buildings through a stakeholder engagement process, studying energy resource and infrastructure needs, and by seeking funding. The motion also directs PW, the Chief Sustainability Office, DRP, and other County departments to provide recommendations for an ordinance or building code changes that would phase out the use of natural gas equipment and appliances in all new residential and commercial construction and substantial renovations, where feasible, starting in 2023.

Alignment with State Initiatives

- California Energy Efficiency Strategic Plan: A roadmap to achieve maximum energy savings across all major groups and sectors in California. This comprehensive Plan is the state's first integrated framework of goals and strategies for saving energy, covering government, utility, and private sector actions, and holds energy efficiency to its role as the highest priority resource in meeting California's energy needs.
- CALGreen Code (Title 24 Building Code): The CALGreen Code establishes mandatory measures for new residential and nonresidential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.
- Renewables Portfolio Standard (SB 100 and SB 1020): A statewide mandate to increase the proportion of electricity from renewable sources. The program sets continuously escalating renewable energy procurement requirements for the state's load-serving entities. Generation must be procured from RPS-certified facilities.
- SB 1206: Mandates a stepped sales prohibition on newly produced high-GWP HFCs to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment.



Building Energy and Water Strategy 5: Decarbonize Buildings

MEASURE E1: Decarbonize Existing Buildings (Core) ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 176,072

By 2035: 280,988

By 2045: 477,221

(units = MTCO_{2e})

Estimated COST

\$\$\$\$

PERFORMANCE OBJECTIVES*

Decarbonize the existing residential building stock:

- 25 percent by 2030
- 40 percent by 2035
- 80 percent by 2045

Decarbonize the existing nonresidential building stock:

- 15 percent by 2030
- 25 percent by 2035
- 60 percent by 2045

Require Zero Net Energy (ZNE)³⁸ for all major renovations:

- 50 percent by 2030
- 75 percent by 2035
- 100 percent by 2045

DESCRIPTION

As the carbon intensity of grid-supplied electricity decreases, decarbonization of the electrical grid must be combined with building decarbonization, shifting the energy load from fossil fuels to carbon-free energy sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to decarbonize applicable existing buildings. A primary alternative to fossil natural gas is renewable electricity supplied by CPA. Biomethane is another alternative to fossil natural gas; however, existing opportunities for the widespread use of biomethane are currently limited. The use of other zero-GHG-emission fuel sources for buildings will also be considered.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

E1.1—Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require zero-GHG emission appliances.

E1.2—Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon and GHG intensity limits for existing nonresidential and residential buildings over a certain size.

E1.3—Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits.

E1.4—Create a plan for phased electrification of County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. ^M

³⁸ *Zero net energy* is defined by the U.S. Department of Energy as follows: “An energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the onsite renewable exported energy.” U.S. Department of Energy. 2015. *A Common Definition for Zero Energy Buildings*, September 2015. Prepared by the National Institute of Building Sciences. Available: https://www.energy.gov/sites/prod/files/2015/09/f26/bto_common_definition_zero_energy_buildings_093015.pdf. Accessed in January 2021.



Building Energy and Water
Strategy 5: Decarbonize Buildings

MEASURE E1: Decarbonize Existing Buildings (Core) ^Q

Require major renovations to be electric-ready.

Adopt building performance standards and reach code(s).

Adopt ZNE ordinance.

Conduct buildings portfolio analysis and cost feasibility study.

E1.5—Create a comprehensive fund aggregation program to support energy efficiency, decarbonization, and resilience in new and existing affordable housing.

E1.6—Create and resource an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing.



Building Energy and Water Strategy 5: Decarbonize Buildings

MEASURE E2: Decarbonize New Development ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 7,452

By 2035: 12,588

By 2045: 22,639

(units = MTCO_{2e})

Estimated COST

\$

PERFORMANCE OBJECTIVES

Require all applicable new buildings to include zero-GHG emission appliances. Provide affordable housing set-aside to offset first cost.

- Residential: 90 percent decarbonized by 2030, 95 percent by 2035, and 100 percent by 2045
- Nonresidential: 90 percent decarbonized by 2030 (except large industry and possibly food service), 95 percent by 2035, and 100 percent by 2045

Require most new residential and nonresidential buildings to be ZNE beginning in 2030. Include affordable housing set-aside.

- Residential: 90 percent ZNE by 2030
- Nonresidential: 90 percent ZNE by 2030 (except large industry)

Require all new development to be electric-ready.

DESCRIPTION

This measure aims to decarbonize all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

E2.1—Adopt an ordinance requiring all applicable new buildings to be zero-GHG emission. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. Require all new development to be electric-ready.

E2.2—Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost.

E2.3—Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments.



Building Energy and Water
Strategy 5: Decarbonize Buildings

MEASURE E3: Other Decarbonization Actions

Annual GHG Emissions REDUCTIONS

Not quantified (supporting measure)

Estimated COST
 \$-\$\$\$

PERFORMANCE OBJECTIVES

Increase the proportion of biomethane in the utility natural gas mix to:

- 20 percent by 2030
- 30 percent by 2035
- 80 percent by 2045

Use low-carbon, carbon-neutral, or negative-carbon concrete for all new construction; identify carbon intensity limit of concrete.

Replace high-GWP refrigerants with low-GWP refrigerants:

- 15 percent by 2030
- 25 percent by 2035
- 50 percent by 2045

DESCRIPTION

Reduce the life-cycle carbon intensity of building materials and phase out the use of high-GWP refrigerants.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

E3.1—Work with utilities to incorporate increasing levels of biomethane into the natural gas mix.

E3.2—Adopt a concrete code for new construction that limits embodied carbon emissions; specify code requirements of carbon intensity limit for concrete.

E3.3—Adopt reach code requirements that include performance standards to limit the amount of embodied carbon associated with construction.

E3.4—Develop a refrigerant management program that establishes a phase-out timeline for high-GWP refrigerants in existing buildings, incentivizes industrial equipment replacement, and specifies requirements for new development to use low-GWP refrigerants.

**Building Energy and Water****Strategy 6: Improve Efficiency of Existing Building Energy Use****2045 VISION****All buildings will be zero net energy users****Strategy Description**

Increasing the energy efficiency of existing buildings reduces GHG emissions by decreasing the consumption of nonrenewable energy sources, including natural gas and electricity that is not 100 percent carbon-free. Energy efficiency improvements can be achieved through a variety of methods, including energy audits, benchmarking, appliance replacements and rebates, building retrofits, and consumer education. In addition to reducing GHG emissions, energy-efficient building improvements can lower energy bills, create local green jobs, and improve the longevity of existing buildings. The County will improve the energy efficiency of existing buildings through coordination with agencies and organizations, as well as public outreach.

Past and Current County Actions

- In 2019, the Department of Public Works (PW) adopted a Cool Roof Ordinance to amend Title 31 mandating the installation of Tier 2 level cool roofing materials for all projects in which it has been proven to be cost effective.
- The Internal Services Department manages a portfolio of energy efficiency programs that support communities, local governments, commercial businesses, and residential and multifamily property owners. The Internal Services Department administers the Southern California Regional Energy Network (SoCalREN), which supports energy efficiency programs and achieved more than 16 million kilowatt-hours in electricity savings and more than 280,000 therms of natural gas savings in 2021.

Alignment with State Initiatives

- California Energy Efficiency Strategic Plan: A roadmap to achieve maximum energy savings across all major groups and sectors in California. This comprehensive Plan is the state's first integrated framework of goals and strategies for saving energy, covering government, utility, and private sector actions, and holds energy efficiency to its role as the highest priority resource in meeting California's energy needs.
- CALGreen Code (Title 24 Building Code): The CALGreen Code establishes mandatory measures for new residential and nonresidential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.



Building Energy and Water

Strategy 6: Improve Efficiency of Existing Building Energy Use

MEASURE E4: Improve Energy Efficiency of Existing Buildings ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 22,274

By 2035: 41,255

By 2045: 203,455

(units = MTCO₂e)

Estimated COST

\$-\$\$\$

PERFORMANCE OBJECTIVES

Reduce building energy use intensity below 2015 levels as follows:

- 20 percent for residential, 15 percent for industrial, and 25 percent for commercial by 2030
- 25 percent for residential and industrial and 35 percent for commercial by 2035
- 50 percent for residential, industrial, and commercial by 2045

Adopt building performance standards and reach code(s).

DESCRIPTION

Retrofit existing building stock to reduce overall unincorporated Los Angeles County energy use.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

E4.1—Adopt Building Performance Standards for energy efficiency in existing buildings. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.)

E4.2—Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency.

E4.3—Convert existing County-owned heat-trapping surfaces to cool or green surfaces.^M



Building Energy and Water Strategy 7: Conserve Water

2045 VISION

Community water consumption that does not exceed unincorporated Los Angeles County's sustainable supply

Strategy Description

The GHG emissions associated with water consumption are the result of the electricity and natural gas used to pump, treat, and convey the water. This strategy aims to reduce GHG emissions by decreasing the total amount of water consumed, as well as the energy intensity of the water consumed.

Past and Current County Actions

- The County continues to hold free Smart Gardening Program public workshops on topics such as composting, water-wise gardening, and organic gardening.
- The County allocated \$300,000 for the Waterworks Districts' Water Customer Rebate program in Fiscal Year 2021–2022.
- The passage of Measure W in November 2018 created the County's Safe Clean Water Program.
- In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainability in housing development through programs that include but are not limited to the Priority of Water and Sewer for Affordable Housing.

Alignment with State Initiatives

- SB 606 and AB 1668, requiring urban efficiency standards for indoor use, outdoor use, and water lost to leaks.



Building Energy and Water
Strategy 7: Conserve Water

MEASURE E5: Increase Use of Recycled Water and Graywater Systems

Annual GHG Emissions REDUCTIONS

Not quantified (supporting measure)

Estimated COST

\$—\$\$\$

PERFORMANCE OBJECTIVES

Increase use of alternative water sources such that Unincorporated Los Angeles County demand is met by recycled water graywater, or potable reuse:

- 25 percent by 2030
- 50 percent by 2035
- 90 percent by 2045

Ensure that water demand for agricultural will be recycled or graywater:

- 30 percent by 2030
- 50 percent by 2035
- 80 percent by 2045

Ensure that water demand for industrial will be recycled or graywater:

- 30 percent by 2030
- 50 percent by 2035
- 80 percent by 2045

Implement a successful direct potable reuse project by 2025.

DESCRIPTION

Increasing the use of alternative water sources (e.g., recycled water, graywater, indirect potable reuse) reduces the demand for water sources with higher energy and carbon intensities (e.g., imported water, groundwater).

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

E5.1—Require dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems.

E5.2—Require the use of recycled water and graywater for agricultural purposes where recycled water is available. Identify soil and water conservation best practices for agricultural uses. Work with Los Angeles County Sanitation Districts (LACSD) and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities.

E5.3—Require the use of recycled water and graywater for industrial purposes where recycled water is available. Identify water conservation best practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities.

E5.4—Require the use of recycled water and graywater for landscaping irrigation purposes where recycled water is available.

E5.5—Partner with the County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects.



Building Energy and Water Strategy 7: Conserve Water

MEASURE E6: Reduce Indoor and Outdoor Water Consumption ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 10,575

By 2035: 15,122

By 2045: 11,764

(units = MTCO₂e)

Estimated COST

\$--\$

PERFORMANCE OBJECTIVES

Reduce total water use to less than:

- 110 gallons per capita per day (GPCD) by 2030
- 100 GPCD by 2035
- 85 GPCD by 2045

Reduce outdoor landscaping water use by 10 percent by 2030, 20 percent by 2035, and 50 percent by 2045.

Reduce municipal water consumption by 10 percent by 2030, 20 percent by 2035, and 50 percent by 2045.

DESCRIPTION

Reducing indoor and outdoor water consumption is essential as the state experiences longer and more severe droughts. Not only will water conservation improve regional resiliency, but it will also reduce GHG emissions through the reduction of energy consumption associated with the processing, treatment, and conveyance of water and wastewater.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

E6.1—Develop a water conservation ordinance for new development (public and private). Utilize Leadership in Energy and Environmental Design (LEED) or Sustainable SITES Initiative (SITES) standards. A future ordinance may include a net zero water requirement for new greenfield development.

E6.2—Adopt a water efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their water use and demonstrate their pathway to efficiency.

E6.3—Incentivize residents to replace water-intensive landscaping, such as decorative turf, with water-conserving landscaping and/or California native plants through a new ordinance along with education and incentive programs.

E6.4—Implement strategies to improve water efficiency and increase water conservation at County facilities. ^M

E6.5—Integrate water-related programs into the County's affordable housing preservation program to protect the housing affordability of units and to keep the units fit for their purpose in a changing climate.



Waste (W)

The County will reduce GHG emissions from waste in a manner that prioritizes overall environmental benefit. This starts with expanded efforts to reduce and reuse waste at the source. Incentives and educational programs will be used to increase awareness and bolster participation in recycling programs. Organic waste, which is responsible for the vast majority of GHG emissions in the waste sector, will be addressed through source reduction, donation of edible food, and composting. Organic waste will also be addressed through waste conversion technologies such as anaerobic digestion and biomass conversion, which produce biogas that can be used to produce heat and electricity, pipeline gas, and other beneficial products such as compost and fertilizer. At wastewater treatment plants, biogas will be captured and converted into electricity.

Waste (W) comprises the following strategy and measures:

Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream

- Measure W1: Institutionalize Sustainable Waste Systems and Practices ^a
- Measure W2: Increase Organic Waste Diversion

**Waste****Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream****2045 VISION****Zero waste sent to landfill****Strategy Description**

The County will reduce GHG emissions from waste in a manner that prioritizes overall environmental benefit. This starts with expanded efforts to reduce and reuse waste at the source. Incentives and educational programs will be used to increase awareness and bolster participation in recycling programs. Organic waste, which is responsible for the vast majority of GHG emissions in the waste sector, will be addressed through source reduction, donation of edible food, and composting, as well as through waste conversion technologies such as anaerobic digestion and biomass conversion, which produce biogas that can be used to produce heat and electricity, pipeline gas, and other beneficial products like compost and fertilizer. At wastewater treatment plants, biogas will be captured and converted into electricity.

Past and Current County Actions

- The Conversion Technology Program aims to increase the current in-County capacity of waste diversion from 600 tons per day (tpd) to 3,000 tpd by 2035.
- In 2010, an ordinance was adopted prohibiting the distribution of single-use plastic carryout bags at certain stores and requiring the stores to charge 10 cents for each paper bag provided to a customer.
- In 2018, the County Department of Public Works (PW) launched the Food Donation Recovery and Outreach Program (Food DROP) to facilitate the recovery of edible food to feed those in need instead of being disposed.
- PW is in the process of updating the Construction and Demolition Debris Recycling and Reuse Ordinance to increase the construction and demolition debris recycling requirement from 50 percent to 70 percent for projects in unincorporated Los Angeles County.
- In 2021, an ordinance was adopted requiring that single-use accessories (straws, utensils, condiment cups) be distributed to customers only upon request. In 2022, the Board of Supervisors passed a follow-up ordinance that limits the use of single-use plastic food service ware in unincorporated Los Angeles County to reusable, recyclable, or compostable options.
- As of 2022, there are four landfill gas-to-energy facilities in unincorporated Los Angeles County, with a total installed (rated) renewable energy generation capacity of 96 megawatts.

Alignment with State Initiatives

- SB 1383: Established emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants, including methane by 40%, HFC gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030.
- AB 341: Requires each city, county, and regional agency to develop a source reduction and recycling element of an integrated waste management plan containing specified components, including a source reduction component, a recycling component, and a composting component.
- AB 1826: Requires any business, defined as a commercial or public entity, that generates more than 4 cubic yards of commercial solid waste per week or is a multifamily residential dwelling of 5 units or more, to arrange for recycling services.



Waste

Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream

MEASURE W1: Institutionalize Sustainable Waste Systems and Practices (Core) ^Q

Annual GHG Emissions

REDUCTIONS

By 2030: 154,514

By 2035: 248,362

By 2045: 342,934

(units = MTCO_{2e})

Estimated COST

\$–\$\$

PERFORMANCE OBJECTIVES

Increase the total unincorporated Los Angeles County waste diversion rate to:

- 85 percent by 2030
- 90 percent by 2035
- 95 percent by 2045

Reduce the disposal of single-use plastics in landfills.

Increase the Construction and Demolition Debris Ordinance to 70 percent diversion.

Increase percentage of construction and demolition debris reused in new projects (private, public).

DESCRIPTION

Undertake actions that result in sustainable waste systems. Responsible and sustainable waste practices are learned behaviors that the County can facilitate through outreach, education, and mandates. Increase diversion of recyclable materials and organics from landfills through ordinances, service improvements, education and outreach, and promotion of product stewardship and markets for material reuse. An increased diversion rate indirectly reduces the demand for virgin materials, which reduces the life-cycle carbon intensity of any resulting products. Through action taken at the County level, waste-conscious habits and thoughtful consumption can become the default.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

W1.1—Identify best practice waste pricing programs to reduce waste generation to the maximum extent feasible, including but not limited to differential prices for waste based on amount generated in the residential sector and reforms to tipping rate structures.

W1.2—Implement, enforce, and expand to the maximum extent feasible the single-use plastics and expanded polystyrene ordinance.

W1.3—Increase the diversion requirements in the County's Construction and Demolition Debris Ordinance and allow the use of recycled construction materials in new projects.



Waste

Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream

MEASURE W2: Increase Organic Waste Diversion

Annual GHG Emissions REDUCTIONS

Not quantified (supporting measure)

Estimated COST

\$-\$\$\$\$

PERFORMANCE OBJECTIVES

Maximize organic waste diversion to support unincorporated Los Angeles County’s overall waste diversion rate goals identified in Measure W1.*

** As the overall diversion rate increases through implementation of Measure W1, the amount of organic waste disposed in landfills decreases over time.*

DESCRIPTION

Provide services for diverting yard waste, food scraps, and compostable paper from landfills to beneficial uses, including compost, food rescue, and energy production.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

W2.1—Require organic waste generators to properly manage organic waste as per the Organic Waste Disposal Reduction Ordinance. Improve upon and expand existing practices and programs to minimize organic waste disposal in landfills.

W2.2—Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all County operations; establish a contamination monitoring plan for organic waste programs.

W2.3—Collaborate with the Los Angeles County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel and other beneficial uses (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste.

W2.4—Provide regional leadership for organic waste processing capacity planning and infrastructure development.

W2.5—Enhance and expand the County’s existing Food DROP food donation and redistribution program to divert edible food from landfills and make it available to food insecure communities.



Agriculture, Forestry, and Other Land Use (A)

The Agriculture, Forestry, and Other Land Use sector strategies focus on conservation and restoration of existing forest lands and urban forests to sequester carbon and support local ecosystems. These strategies promote clean water, air, and food, in addition to a reduced urban heat island effect. Preserving and supporting unincorporated Los Angeles County's forests, parks, and working lands is essential to reducing climate change impacts, as well as protecting the communities, economies, and ecosystems that depend on the land.

Agriculture, Forestry, and Other Land Use (A) comprises the following strategies and measures:

Strategy 9: Conserve and Connect Wildlands and Working Lands

- Measure A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and Other Carbon-Sequestering Wildlands and Working Lands ^a

Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

- Measure A2: Support Regenerative Agriculture
- Measure A3: Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces ^a



Agriculture, Forestry, and Other Land Use

Strategy 9: Conserve and Connect Wildlands and Working Lands

2045 VISION

Achieve a net gain in carbon storage in unincorporated Los Angeles County's wildlands and working lands through management and restoration

Strategy Description

Forests, chaparral shrublands, grasslands, deserts, and wetlands serve as carbon sinks that can sequester CO₂ that results from human activity. When these natural and working lands are converted to development and urbanized uses, that stored CO₂ is released into the atmosphere. Conserving and restoring these lands keeps carbon in the ground and provides a multitude of benefits, from maintaining biodiversity in the Significant Ecological Areas to preserving the character of unincorporated Los Angeles County's rural areas. Other important factors that enhance carbon storage and carbon sequestration potential include prioritizing habitat connectivity and strategically restoring degraded habitats and fallowed agriculture lands. This strategy will also consider optimal ecosystem services that are the result of the functional integrity of healthy ecosystems; prioritize the preservation of contiguous heterogeneous habitats to benefit biodiversity and help improve the chances of maintaining ecosystem health and carbon sequestration and storage capacity; and incorporate connectivity to optimize carbon storage sequestration. Further, this strategy will consider the role rural communities play in preserving and enhancing carbon sequestration capacity.

Past and Current County Actions

- In 2018, the Department of Regional Planning (DRP) amended the zoning code to allow selected accessory uses within utility rights-of-way, such as parks, open space, and limited agricultural uses, with development standards and streamlined review procedures.
- In 2019, DRP amended the zoning code to guide development to areas that would create the least impact on environmental resources on private properties.

Alignment with State Initiatives

- California 2030 Natural and Working Lands Climate Change Implementation Plan: a collaborative effort by the California Natural Resources Agency, California Department of Food and Agriculture, California Environmental Protection Agency, CARB, and Strategic Growth Council to coordinate all natural and working lands programs under a united approach to maintain a resilient carbon sink and improve air and water quality, water quantity, wildlife habitat, recreation, and other benefits.

- AB 1757 of 2022: Requires the California Natural Resources Agency (CNRA), in collaboration with CARB, other state agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience.
- SB 27 of 2021: Requires CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This law also requires CARB to establish specified CO₂ removal targets for 2030 and beyond as part of its Scoping Plan.



Agriculture, Forestry, and Other Land Use

Strategy 9: Conserve and Connect Wildlands and Working Lands

MEASURE A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and Other Carbon-Sequestering Wildlands and Working Lands ^Q

Annual GHG emissions REDUCTIONS

By 2030: 8,953
 By 2035: 17,906
 By 2045: 26,858
 (units = MTCO_{2e})

Estimated COST
 \$\$-\$\$\$

PERFORMANCE OBJECTIVES

Reduce the amount of natural land converted for urbanized uses:

- 25 percent by 2030 (53 hectares conserved annually)
- 50 percent by 2035 (106 hectares conserved annually)
- 75 percent by 2045 (159 hectares conserved annually)

Conserve and restore new acres of wildland:

- 2,000 acres by 2030
- 4,000 acres by 2035
- 6,000 acres by 2045

Manage new acres of wildland for wildfire risk reduction and carbon stock savings:

- 10,000 acres by 2030
- 20,000 acres by 2035
- 50,000 acres by 2045

DESCRIPTION

Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

A1.1—Develop an open space conservation and land acquisition strategy that prioritizes wildlife connectivity to conserve native habitats for carbon sequestration.

A1.2—Employ ecosystem-appropriate vegetation management of wildlands based on the best available science to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Leverage tools such as the Unified Land Management Plan and the Countywide Community Wildfire Prevention Plan.



Agriculture, Forestry, and Other Land Use

Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

2045 VISION

Farms and urban forests that sequester carbon, conserve water, and enhance biodiversity

Strategy Description

Agricultural practices can either strip the environment of its rich resources or work to maintain and utilize the resources in ways that benefit farms and the environment. Farming practices that increase biodiversity, enrich soils, improve watersheds, and enhance ecosystem services are known as *regenerative agriculture practices*. These practices can have positive impacts for the climate, reducing GHG emissions and supporting practices that are environmentally friendly. Adding tree canopy cover and green spaces back into developed areas can help sequester carbon and reduce the urban heat island effect.

Past and Current County Actions

- The County adopted the Tree Planting Ordinance in 2016 to establish new tree planting requirements for projects to provide environmental benefits.
- The Tree Committee of the County's Healthy Design Workgroup coordinates interdepartmental efforts to preserve, maintain, and expand unincorporated Los Angeles County's urban forest in low-income, tree-poor neighborhoods.
- In 2016, the Department of Regional Planning (DRP) amended the zoning code to incentivize growing local foods on private property.
- In 2021, the County was awarded \$1.5 million by the state to develop an Urban Forest Management Plan.

Alignment with State Initiative

- California 2030 Natural and Working Lands Climate Change Implementation Plan.



Agriculture, Forestry, and Other Land Use

Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

MEASURE A2: Support Regenerative Agriculture

Annual GHG Emissions REDUCTIONS

Not quantified (supporting measure)

Estimated COST

\$-\$\$\$\$

PERFORMANCE OBJECTIVES

- Reduce the quantity of synthetic fertilizers used/applied.
- Increase the number of acres of cover crops using regenerative agricultural techniques.

DESCRIPTION

Promote agricultural practices that sequester carbon and restore soil quality, biodiversity, ecosystems health, and water quality.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

A2.1—Create fallow and field resting incentives to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. Create a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture.

A2.2—Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate.



Agriculture, Forestry, and Other Land Use

Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

MEASURE A3: Expand Unincorporated Los Angeles County’s Tree Canopy and Green Spaces ^Q

Annual GHG Emissions REDUCTIONS

By 2030: 4,602
 By 2035: 7,080
 By 2045: 10,310
 (units = MTCO_{2e})

Estimated COST
 \$-\$\$

PERFORMANCE OBJECTIVES*

Plant new trees as follows:

- 130,000 by 2030
- 200,000 by 2035
- 270,000 by 2045

Develop an Urban Forest Management Plan.

** The performance objectives provided here serve as a general metric and may be refined upon completion of the Urban Forest Management Plan.*

DESCRIPTION

Create an Urban Forest Management Plan to plant trees, increase unincorporated Los Angeles County’s tree canopy cover, add green space, and convert impervious surfaces. Focus tree planting on frontline communities with insufficient tree cover and green spaces.

IMPLEMENTING ACTIONS

For tracking metrics and implementation details, see Appendix E.

A3.1—Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity.

A3.2—Expand tree planting on County property and in the public right-of-way within unincorporated Los Angeles County. Encourage tree planting on private property.

A3.3—Develop an ordinance requiring that all removed native trees be replaced by an equal or greater number of new trees.

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CHAPTER 4

Implementation and Monitoring

4.1 Implementation Plan

Reaching and maintaining carbon neutrality will require a strong commitment to implementation. Everyone has a role to play in shaping a healthy, sustainable, and climate-resilient future. Implementing the 2045 CAP will require coordination across County departments; collaboration with community partners, residents, and other stakeholders; identification of funding opportunities; and integration of 2045 CAP implementation with other County planning and administrative processes.

To ensure successful implementation of the 2045 CAP, the County will do the following, as depicted in Figure 4-1.



Figure 4-1: CAP Implementation Process

1. Create a 2045 CAP Implementation Team

The Chief Sustainability Office and DRP will develop a cross-departmental 2045 CAP implementation team to include representatives from County departments listed as lead or partner agencies for the 2045 CAP actions. The team will help County departments implement listed actions, identify funding, and monitor annual progress.

2. Prioritize Equity in Implementation and Monitoring

Implementation efforts will continue to prioritize equity.

The following actions will guide implementation of the 2045 CAP:

- (1) Engage in meaningful public involvement that is anti-racist and inclusive.
- (2) Prioritize funding and action in frontline communities.
- (3) Design transportation and land use solutions to eliminate disproportionate burdens on frontline communities.
- (4) Partner with local and nonprofit organizations to assist low-income, disadvantaged, and vulnerable communities on information and resource access.

3. Confirm Funding Sources

Successful implementation will require a commitment of resources and confirmation of additional funding sources. Funding efforts will include the following:

- **Grant Opportunities:** Federal, state, and regional agencies and organizations provide grants and loans, as well as planning assistance, for investments in a variety of climate-related projects. Given the State of California's leadership on setting emissions reduction targets and in creating the Cap-and-Trade Program, numerous grant opportunities are offered by different state agencies. Through the Healthy Design Workgroup Grants Committee, the County will continue to review grant opportunities to obtain additional funding that supports climate action implementation.
- **County General Fund:** Annual budgeting allocations fund departmental operations for staff resources to implement programs. Programs that need funding beyond staff resources are assessed through the annual budgeting and prioritization process. Additional funding may be secured through fee programs or discretionary budget allocations.
- **Federal, State, Regional, and Utility Programs and Incentives:** The County will strongly encourage residents and businesses to participate in incentives that promote energy efficiency, water conservation, and the use of EVs.

As discussed in Chapter 3, funding sources for the five core measures have already been identified. These funding sources are presented in Table 3-3.

A list of potential partners, programs, and funding sources that would support 2045 CAP implementation is provided in **Appendix G**. Note that programs and funding sources for implementing GHG emissions reduction programs are developing rapidly and may change substantially from year to year.

4. Build Partnerships

Partnerships are critical to successful implementation of the 2045 CAP. Partners are listed in many of the 2045 CAP actions, and the County will seek to continue to build additional partnerships and engage with stakeholders on an ongoing basis.

5. Study Optimal Implementation

To optimize implementation of the 2045 CAP measures and actions, the County will evaluate and identify priority areas for implementation, GHG emissions reduction potential, physical infrastructure needs, regulatory and legal requirements, up-front and ongoing costs and savings, funding opportunities, barriers and obstacles, impacts on and benefits for frontline communities, and needed partnerships, among other topics. Studies initiated by a CAP action will include additional analysis to identify necessary additional support for frontline communities. Identifying frontline communities' concerns early in the process can help secure funding and shape a project to best fit local needs.

The outcome of the studies may determine the achievable performance goals and actions needed to implement 2045 CAP measures. Performance goals and actions may differ from those identified in the 2045 CAP once the details are analyzed. The 2045 CAP identifies several specific studies needed, including a carbon removal feasibility study (Measure ES1), a solar, battery storage, and microgrid study (Measure ES4), and a buildings portfolio analysis and cost feasibility study (Measure E1). Many more studies would likely be needed.

6. Conduct Engagement

Community engagement and input is a crucial component of successful CAP implementation. The County will conduct community engagement and seek input to ensure that the implementation of CAP measures and actions in the form of programs, policies, ordinances, and projects considers the needs of residents and businesses along with climate objectives. Many of the actions throughout the 2045 CAP, including development of new ordinances, programs, and funding sources, will require targeted community engagement. The County will approach these efforts as opportunities to strengthen relationships and improve the capacity of frontline communities to participate in decisions that affect their lives. The County will work to build partnerships with community-based organizations (CBOs) and other partners in frontline communities that can help build a bridge of two-way communication based on reciprocity and respect. The County will work to help build the capacity of CBOs so that they can better support this effort over time, including by providing grants or other funding to CBOs to support engagement work.

The success of the 2045 CAP's implementation can be furthered by local actions and programs that increase awareness of climate change, promote sustainable actions, and provide a framework for change. The County will develop and strengthen community education and awareness about the 2045 CAP through various promotional efforts to communicate program development and gauge the success of 2045 CAP implementation. The 2045 CAP Implementation Team will guide community engagement that promotes community measures and leads to local contributions for emissions reductions. The community engagement program could incorporate a voluntary local climate challenge that recommends actions for residents, businesses, and other local stakeholders to take, with the goal of creating a more climate-conscious and climate-friendly County and a healthier environment. Recommended actions should prioritize community goals of energy efficiency, waste reduction, water savings, clean transportation, and increasing climate change awareness.

7. Adopt or Update Ordinances, Codes, and/or Regulations

Some actions may represent a continuation of a recently enacted ordinance, while others require a new ordinance. For any new ordinances developed pursuant to a measure or action, there will be a public input and review process and the County will consider many factors: feasibility, cost, exceptions such as weather or climate limitations, and others. The County generally follows these steps when adopting a new ordinance:

- (1) Research, evaluate, and/or study.
- (2) Engage the public and stakeholders (gather information).
- (3) Draft the ordinance, code, or regulation.
- (4) Publish the draft ordinance, code, or regulation for public review.

- (5) Revise the draft ordinance, code, or regulation in response to public comments.
- (6) Conduct formal public hearings (includes a public comment period).
- (7) Adopt the ordinance, code, or regulation.
- (8) Implement and enforce the ordinance, code, or regulation.

8. Monitor and Report

The 2045 CAP Implementation Team will prepare annual progress reports of the status of the strategies, measures, and actions. This includes community and municipal measures and actions. More information regarding this step is listed in Section 4.2.

4.2 Monitoring and Reporting

GHG Inventory and CAP Updates

The 2045 CAP is a dynamic document that will be monitored and evaluated for its effectiveness on an ongoing basis. Monitoring allows the County to make timely adjustments to implementing actions as technologies, federal and state programs, and circumstances change. Flexibility in implementation is necessary to allow the County to evolve its strategies. The County will update the GHG emissions inventory and the CAP every five years.

Monitoring

The County will monitor each 2045 CAP measure and action using the metrics identified in Appendix E, *Implementation* (see Table E-1), subject to data availability. The County will also track, measure, and improve the performance of measures and actions to reduce emissions from its operations, subject to data availability.

The County will track the status of implementation (e.g., initiated, ongoing, completed), assess the effectiveness of the measures and actions in the 2045 CAP against the performance objectives, and make adjustments to the tracking metrics as needed. Tracking the performance objectives for each quantified GHG reduction measure on a periodic basis will inform the County and community over time as to how the 2045 CAP implementation actions are working toward achieving GHG reduction targets and will help the County re-prioritize actions in future updates to the 2045 CAP.

Tracking the metrics summarized in **Table 4-1** will assist the County in monitoring the progress in meeting climate strategies and goals. Tracking metrics are intended to identify potential data that may be used to analyze GHG emission reductions. See Appendix E for the complete list of tracking metrics that may contribute to progress monitoring. Many of these indicators will be tracked by the Chief Sustainability Office as part of implementation of the OurCounty Sustainability Plan, or are reported by state or County agencies. The list of indicators will be assessed and revised periodically and administratively based on data availability.

Reporting

The County will report on the implementation progress of the 2045 CAP as part of the General Plan Annual Progress Report. In the first two years of implementation, the County will identify where further efforts and additional resources may be needed. In this initial phase, the County will identify the data sources needed to report on the effectiveness of implementation.

The County will also develop a dashboard as part of the reporting on implementation of the 2045 CAP. This dashboard will be updated on an annual basis and will provide information on the ongoing efforts of the CAP actions through data and spatial displays. The dashboard will also track equity-based metrics to measure progress of implementation in frontline communities compared to unincorporated Los Angeles County as a whole.

Table 4-1: Tracking Metrics for Monitoring Progress of 2045 Climate Action Plan Implementation

| STRATEGY | TRACKING METRICS |
|--|---|
| Strategy 1: Decarbonize the Energy Supply | <ul style="list-style-type: none"> • Number of oil and gas operations/wells decommissioned and remediated • Emissions reductions achieved through oil and gas closures • Decommissioning dates and details (i.e., fuel consumption and GHG emissions) for the Olive View Cogeneration Facility • Number of CCS systems constructed • CARB Pollution Mapping Tool data for natural gas leakage • Participation rates in CPA's Green Power option or SCE's Green Rate option • Renewable energy portfolio (percent share) • Electricity grid emission factor(s) • Rooftop solar PV installations for existing multifamily residential buildings and existing commercial buildings • Rooftop solar PV installations for new multifamily residential buildings • Rooftop solar PV installations for new commercial buildings • Kilowatts of solar capacity installed on County facilities • Total installed distributed energy resource capacity (e.g., kilowatts of solar capacity installed) • Total battery capacity installed • Total community electricity storage capacity • Number and capacity of microgrids established • Number and performance of energy efficiency and resilience projects implemented in facilities providing critical community services • Number and type of projects performing CAP consistency review • Dollars invested into future Offsite GHG Reduction Program, and estimated energy savings and GHG emissions reductions • Energy benefits (all items above) delivered in frontline communities |
| Strategy 2: Increase Densities and Diversity of Land Uses Near Transit | <ul style="list-style-type: none"> • Commute mode share • Population residing within HQTAs (and dwelling units within HQTAs) • Jobs located within HQTAs • Total acres of commercial or industrial zones in HQTAs that can support jobs • Residential density (DU/acre) for new development • Daily VMT and vehicle trips • Percent of new units in TODs that provide affordable housing |

Table 4-1: Tracking Metrics for Monitoring Progress of 2045 Climate Action Plan Implementation (cont.)

| STRATEGY | TRACKING METRICS |
|---|---|
| <p>Strategy 3: Reduce Single-Occupancy Vehicle Trips</p> | <ul style="list-style-type: none"> • Commute mode share • Bikeway miles • Pedestrian walkway miles • Total transit service hours • Decrease in transit headways • Miles of bus-only lanes constructed • Number of free and discounted transit passes issued • Number of intersections with signal prioritization • Number and location of shade and lighting projects planned and completed • Parking pricing information, including unbundling • Number and location of car-free areas • Number of ZEV buses and shuttles in operation • Percent change in parking supply; number of new and expanded parking benefit districts • Collisions involving pedestrians or bicyclists • Transit and active transportation benefits (see all items above) delivered in frontline communities |
| <p>Strategy 4: Institutionalize Low-Carbon Transportation</p> | <ul style="list-style-type: none"> • EV, ZEV, and near-zero-emission vehicle registrations for light-, medium-, and heavy-duty vehicles, including transit fleets, County-owned fleet vehicles, and drayage trucks • Total sales of gasoline and diesel fuel within unincorporated Los Angeles County • Total number of gas stations decommissioned • Number of public, shared private, and private EVCSs installed • Number of EVCSs installed at County facilities • Number of e-scooters/e-bikes made available • Number of neighborhood EVs made available • Quantity of biomethane and biogas sold and consumed in unincorporated Los Angeles County • Number of County-owned ZEV buses, shuttles, and fleet vehicles in operation • Number of off-road equipment pieces electrified • Off-road vehicle and equipment fleet count, type, and fuel type • Quantity and fraction of new EV charging infrastructure provided in frontline communities |
| <p>Strategy 5: Decarbonize Buildings</p> | <ul style="list-style-type: none"> • Number of existing buildings retrofitted with electric appliances (residential and nonresidential) • Number of new fully electric and ZNE buildings constructed (residential and nonresidential) • Total consumption of electricity and natural gas for buildings by sector • Proportion of biomethane in utility natural gas mix • Quantity of low-carbon concrete and materials used in new construction • Dollars invested into future Impact Mitigation Fund, and estimated energy savings and GHG emission reductions • Quantity of low-GWP refrigerants used/charged • Percent and quantity of building decarbonization projects in frontline communities, multifamily developments, and affordable housing |

Table 4-1: Tracking Metrics for Monitoring Progress of 2045 Climate Action Plan Implementation (cont.)

| STRATEGY | TRACKING METRICS |
|---|--|
| Strategy 6: Improve Efficiency of Existing Building Energy Use | <ul style="list-style-type: none"> • Number of new buildings that meet 2022 Title 24 requirements (and future Title 24 requirements) • Number of buildings and homes retrofitted for energy efficiency • Total electricity and natural gas savings achieved through retrofits • Total consumption of electricity and natural gas for buildings by sector • Number and area of cool and green roofs installed • Percent and quantity of energy efficiency projects in frontline communities, multifamily developments, and affordable housing |
| Strategy 7: Conserve Water | <ul style="list-style-type: none"> • Unincorporated Los Angeles County demand met by recycled water, graywater, or direct potable reuse • Per capita water consumption • Number of buildings and homes retrofitted with water-efficient devices • Percent and quantity of building water retrofit projects in frontline communities, multifamily developments, and affordable housing |
| Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream | <ul style="list-style-type: none"> • Annual waste tons to landfill and per-capita waste generation and landfilling rate • Landfill diversion rate and disposal tonnage • Total landfill emissions • Organic waste diversion rate and disposal tonnage • Annual quantity of organic waste treated in composting and anaerobic digestion facilities • Recycling diversion rate and disposal tonnage • Reported GHG emissions from waste-to-energy facilities (biogenic carbon dioxide and non-biogenic methane and nitrous oxide) • Recycling and composting services provided in frontline communities, multi-family developments, and affordable housing |
| Strategy 9: Conserve and Connect Wildlands and Working Lands | <ul style="list-style-type: none"> • Acres of wildlands conserved • Acres of wildlands restored • Acres of farmlands conserved • Acres of farmlands restored • Acres of wildlands managed for wildfire risk reduction and carbon stock savings • Acres of urban and peri-urban agriculture created • Percent and quantity of projects completed in frontline communities, multifamily developments, and affordable housing |
| Strategy 10: Sequester Carbon and Implement Sustainable Agriculture | <ul style="list-style-type: none"> • Quantity of compost used as fertilizer • Quantity of organic and synthetic fertilizers used/applied • Increase in number of acres of cover crops using regenerative agricultural techniques • Number of new trees planted • Urban tree canopy area • Area of impervious surfaces converted to urban forest • Urban tree canopy cover and number of new trees planted in frontline communities, multi-family developments, and affordable housing |

Abbreviations: CAP = climate action plan; CARB = California Air Resources Board; CCS = capture and carbon and sequestration; County = County of Los Angeles government; CPA = Clean Power Alliance; DU = dwelling unit; EV = electric vehicle; EVCS = electric vehicle charging station; GHG = greenhouse gas; GWP = global warming potential; HQTA = high quality transit area; PV = photovoltaic; SCE = Southern California Edison; TOD = Transit Oriented District; unincorporated Los Angeles County = the unincorporated areas of Los Angeles County; VMT = vehicle miles traveled; ZNE = Zero Net Energy

4.3 CEQA

CEQA and the 2045 Climate Action Plan

CEQA and its implementing regulations (the CEQA Guidelines) require state and local government agencies to consider the environmental impacts of projects over which they have discretionary authority before taking action on those projects.

A program environmental impact report (EIR) is a type of EIR that evaluates a plan or program that has multiple components or actions that are related either geographically; as logical parts in the chain of contemplated actions; in connection with application of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways (California Code of Regulations Title 14, Section 15168[a]). It evaluates the general impacts of the plan or program but does not examine the potential site-specific impacts of the many individual projects that may be proposed in the future consistent with the plan.

The Program EIR describes planned activities that would implement the 2045 CAP and addresses related environmental impacts comprehensively, based on the information that was reasonably available at the time the environmental review process was initiated. The Program EIR is a “first-tier” document that anticipates later environmental review of specific projects.³⁹

Later activities undertaken in furtherance of 2045 CAP measures and actions would be examined in light of the Program EIR to determine whether additional environmental review is needed. For example, if a later activity would have effects that are not examined in the EIR, then preparation of either a project-specific Negative Declaration or EIR could be appropriate. That later analysis may tier to the Program EIR as provided in CEQA Guidelines Section 15152. The County would incorporate the mitigation measures developed in the Program EIR into later activities in furtherance of 2045 CAP measures and actions. Alternatively, if DRP finds (pursuant to CEQA Guidelines Section 15162) that no subsequent Negative Declaration or EIR would be required, then the County could approve the activity as being within the scope of the Program EIR, and no additional environmental review would be required.

CEQA Streamlining Checklist

The 2045 CAP constitutes a qualified GHG emissions reduction plan under CEQA Guidelines Section 15183.5(b). Future non-CEQA-exempt projects requiring discretionary approvals may elect to use the voluntary 2045 CAP (as a qualified GHG emissions reduction plan) CEQA Streamlining Checklist if they are consistent with the General Plan’s future growth projections, and the 2045 CAP CEQA streamlining requirements. Projects that comply with the CEQA streamlining requirements would not require additional GHG emissions analysis or mitigation under CEQA Guidelines Section 15183.5(b)(2), provided that the project’s environmental document identifies the 2045 CAP CEQA streamlining requirements that are applicable to the project, and incorporates

³⁹ *Tiering* is defined in CEQA Guidelines Section 15385 as referring “to the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared. Tiering is appropriate when the sequence of EIRs is from a...program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR.”

these requirements as mitigation measures where they are not incorporated into the design of the project.

To demonstrate compliance with the 2045 CAP CEQA Streamlining Requirements when projects elect to use the CEQA Streamlining Checklist, all projects that do not screen out of the 2045 CAP consistency review process must implement either (1) all feasible applicable checklist measures or (2) for infeasible checklist measures, alternative project emissions reduction measures. The CEQA Streamlining Checklist can be used for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for streamlined project-specific CEQA GHG analysis.

Offsite GHG Reduction Program

Action ES5.3 would establish an Offsite GHG Reduction Program (Offsite Program) for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would be used in tandem with the 2045 CAP Consistency Checklist for projects that propose GHG emissions reduction measures as alternatives to those identified in Table F-1 of the 2045 CAP Consistency Checklist, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. Section F.4 of Appendix F includes a framework for the forthcoming Offsite Program.

Developing a local voluntary off-site reduction program and associated GHG mitigation market will help the County provide local benefits.⁴⁰ CARB supports the idea of “off-site GHG mitigation” in Appendix D of the 2022 Scoping Plan for projects that have maxed-out their on-site GHG reduction actions: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement **local**, off-site direct GHG reduction strategies.”⁴¹

Carbon Removal and Sequestration

The 2045 CAP shows that unincorporated Los Angeles County can reduce emissions to 85 percent below 1990 levels by 2045 through numerous aggressive, forward-looking strategies and measures, but the 2045 CAP alone will not be enough for unincorporated Los Angeles County to achieve carbon neutrality. As discussed in Section 3.2 above, even with CAP implementation, there will still be almost 850,000 MTCO_{2e} of residual emissions in 2045. To achieve carbon neutrality, all remaining emissions must be compensated for by removing carbon from the atmosphere. According to the 2022 Scoping Plan, “Carbon removal and sequestration will be an essential tool to achieve carbon neutrality, and the modeling clearly shows there is no path to carbon neutrality without carbon removal and sequestration.”⁴² The 2022 Scoping Plan includes

⁴⁰ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed January 2023.

⁴¹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed January 2023.

⁴² California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16. Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan>. Accessed in December 2022.

CO₂ removal and carbon capture targets of 20 million metric tons of CO₂ (MMTCO₂) and 100 MMTCO₂ by 2030 and 2045, respectively. A slate of legislation on carbon removal and sequestration was passed in 2022, including AB 1279, SB 905, SB 1137, and AB 1757 (see Table 1-2 above).

Action ES1.3 requires the development of a carbon removal strategy that considers direct air capture and carbon and sequestration (CCS). CCS will be an essential component of the County's carbon neutrality strategy. The first step would be to assess the feasibility of various carbon removal tools within areas of unincorporated Los Angeles County. This would include CCS, mechanical carbon removal, and nature-based carbon sequestration. The strategy would assess regional and statewide partnerships and programs, given that regional collaboration has the potential to address barriers to carbon removal and expand opportunities for successful local reductions of GHG emissions. Regional collaboration can also lend support to lead agencies and air districts as they seek opportunities for local GHG reduction programs; for example, the San Luis Obispo County Air Pollution Control District, County of Santa Barbara, County of Ventura, City of Santa Barbara, City of San Luis Obispo, and Community Environmental Council formed a tactical Regional GHG Collaborative Group to understand and identify opportunities for local carbon sequestration and GHG reduction projects.⁴³

Evolving state regulations, programs, and financial incentives will provide new opportunities for the County to compensate for any residual emissions that cannot be directly eliminated. For example, almost \$9 billion in carbon capture and sequestration support was included in the \$1 trillion Infrastructure Investment and Jobs Act of 2021, which includes funding to establish four direct air capture hubs. SB 27 of 2021 will provide carbon removal projects via an in-state project registry, which will serve as a database of projects in the state that drive climate action on natural and working lands. SB 905 of 2022 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and CO₂ removal projects and technology; these projects could also support the County's aspirations to achieve carbon neutrality.

Carbon Offsets/Credits Feasibility Study

Measure ES5, *Establish GHG Requirements for New Development*, assesses the feasibility of developing a GHG offsets/credits program that would help enable the County to achieve its long-term aspirational goal of carbon neutrality by 2045, in the event that the strategies and measures in the 2045 CAP are insufficient to attain the County's carbon neutrality goal.

An offsets/credits program is not a 2045 CAP strategy, measure, or action currently proposed for implementation. The future offsets/credits program differs from the Offsite Program described above in that the offsets/credits program would consider the use of offset credits outside of the boundaries of unincorporated Los Angeles County, while the Offsite Program only encompasses projects within unincorporated Los Angeles County. Further, offset credits are not currently permitted to be used as alternative project emissions reduction measures for new development pursuant to the 2045 CAP Consistency Checklist. The offsets/credits program would be considered for potential implementation later, and only after completion of the feasibility study.

⁴³ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed January 2023.

The potential offsets/credit program would be designed to be consistent with applicable CEQA case law requirements, including requirements that offsets be enforceable, real, permanent, quantifiable, verifiable, and additional. The potential offsets/credits program would provide clear, objective, and measurable performance standards for all allowable GHG offsets. For any potential future GHG offsets/credits program evaluated by the County, the County would prioritize implementation of offsets generated within or close to Los Angeles County.

APPENDIX A

Greenhouse Gas Accounting Methods, Business-as-Usual Forecast, and Emission Reduction Targets

Purpose

This Appendix describes the greenhouse gas (GHG) accounting and projections methods for calendar year 2015 and 2018 for unincorporated Los Angeles County (henceforth referred to as “Unincorporated Los Angeles County” unless otherwise specified). It also presents methods for the 1990 and 2010 emissions backcasts; the business-as-usual (BAU) forecasts for 2030, 2035, and 2045; and the derivation of the 2045 CAP’s emission reduction targets for 2030, 2035, and 2045. The document is organized into four sections corresponding with the following objectives:

Section A.1: Greenhouse Gas Emissions Inventory: 2015 and 2018

This section describes the methods for estimating baseline 2015 GHG emissions from community-induced activities and sources along with updated emission for the year 2018. The community-scale inventory includes emissions from transportation; stationary energy; industrial processes and product use (IPPU); waste and wastewater; and agriculture, forestry, and other land use (AFOLU) emissions.

Section A.2: 1990 and 2010 Greenhouse Gas Inventory and Backcasting Methods

This section describes the approach for estimating unincorporated Los Angeles County’s GHG emissions in the year 2010 and 1990. The backcast aligns the 2010 inventory with the updated methods and emission factors used in the 2015 and 2018 inventory updates, and projects emissions back to 1990 for purposes of aligning the 2045 CAP’s target with the statewide target for 2030.

Section A.3: 2018 to 2045 Business-as-Usual Forecasts

This section describes the approach for modeling the BAU scenario, which projects future emissions based on current population and regional growth trends, land use growth patterns, and regulations or policies introduced before the 2018 inventory year. The BAU scenario demonstrates the growth in GHG emissions that would occur if no further action were to be taken by the County of Los Angeles (County) or the State of California after 2018.

Section A.4: Derivation of the 2045 CAP's Emission Reduction Targets

This section describes the approach taken to derive the 2045 CAP's GHG emission reduction targets for 2030, 2035, and 2045, and how these targets align with the statewide targets codified in SB 32 for 2030 and EO B-55-18 for 2045. This section provides substantial evidence for CEQA purposes that the 2045 CAP's targets represent levels of significance for the cumulative impact of unincorporated Los Angeles County's GHG emissions.

A.1 Greenhouse Gas Emissions Inventory: 2015 and 2018

2015 & 2018 GHG Emissions Inventories

Introduction

The 2015 and 2018 Community-scale GHG emissions inventories for unincorporated Los Angeles County were developed using the Global Protocol for Community-scale GHG Emission Inventories (GPC).¹ This protocol is used for calculating and reporting emissions from community activities and sources from seven gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), hexafluoride (SF₆), and nitrous trifluoride (NF₃). GHG emissions from these activities are organized into five sectors: transportation, stationary energy, waste (including wastewater), industrial processes and product use (IPPU) and agriculture, forestry and other land use (AFOLU). The protocol further offers two related frameworks—the Scopes Framework and the City-induced Framework—for reporting emissions from each sector:

Scopes Framework: This framework captures GHG emissions produced within a geographic boundary by categorizing emissions as scope 1, 2, and 3 emissions in each Sector:

- **Scope 1:** Emissions produced from activities and sources within unincorporated Los Angeles County boundaries.
- **Scope 2:** Emissions generated from the use of grid-supplied electricity, heat, steam and/or cooling within unincorporated Los Angeles County boundaries; and
- **Scope 3:** Emissions occurring outside unincorporated Los Angeles County boundaries due to activities taking place within unincorporated Los Angeles County boundaries.

¹ World Resources Institute, C40 Cities Climate Leadership Group, and ICLEI - Local Governments for Sustainability. *Global Protocol for Community-scale GHG Emission Inventories*, Version 1.1. December, 2014. Available at: <https://ghgprotocol.org/greenhouse-gas-protocol-accounting-reporting-standard-cities>. Accessed January 2021.

City-induced Framework: This framework measures GHG emissions attributable to activities and sources within a geographic boundary and covers selected scope 1, 2, and 3 emissions from each sector. This framework offers two reporting levels:

- **BASIC:** Includes emissions from transportation, stationary energy, and waste sectors.
- **BASIC+:** Includes all BASIC requirements as well as emissions from transmission and distribution grid losses, transboundary transportation, in-boundary generated waste emission sources, IPPU, and AFOLU.

The 2015 and 2018 GHG emissions inventories for unincorporated Los Angeles County use the City-induced BASIC+ Framework. This includes Scope 1, 2, and 3 emissions sources. In other words, the GHG inventories comprise emissions from activities occurring within unincorporated Los Angeles County areas, including emissions that occur elsewhere because of those activities. A good example is solid waste, which is generated locally but disposed of at a landfill outside the city, where it decomposes and generates GHGs. Solid waste is a Scope 3 emissions source.

The GHG inventories use global warming potential (GWP) values from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5),² unless otherwise specified. The inventory is prepared using sector-specific generation and resource consumption data for relevant sub-sectors included in the BASIC+ protocol. The accounting methods, data sources and emission factors used for accounting 2015 and 2018 emissions are detailed in the subsequent sections.

The general methods used for the 2015 and 2018 inventories are the same and the descriptions herein apply to both of the inventory years.

It should also be noted that the Los Angeles County Sanitation Districts has prepared a separate GHG inventory using site-specific data rather than population-based estimates, which were used for certain sources in the Draft 2045 CAP's 2015 and 2018 inventories.^{3,4} Los Angeles County and the Sanitation Districts will work cooperatively to achieve carbon neutrality.

² IPCC, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. 2014. Available at: <https://archive.ipcc.ch/report/ar5/syr/>. Accessed January 2021.

³ Los Angeles County Sanitation Districts, 2021 Greenhouse Gas Inventory Report. 2022.

⁴ Environmental Science Associates, Positive Verification Opinion for Greenhouse Gas Emissions and Reductions for Emissions Year 2021. 2022.

Stationary Energy

This sector includes emissions from energy use (natural gas and electricity) in residential, commercial/ institutional/agricultural, and manufacturing/industrial buildings, energy generation facilities owned by the County, off-road equipment, and fugitive emissions from oil and natural gas systems. **Table A-1** presents scopes, activity data, and emissions for the stationary energy sector. **Figure A-1** compares 2015 and 2018 GHG emissions from energy use by sub-sector.

Table A-1: Stationary Energy Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | ACTIVITY | 2015 INVENTORY | | 2018 INVENTORY | |
|---|-------|--|---------------------------------|--|---------------------------------|----------|
| | | | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY |
| Stationary Energy | | | | | | |
| Residential Buildings | All | Natural Gas: 99,802,009 therms Electricity: 2,032,945,391 kWh | 1,030,285 | Natural Gas: 100,918,233 therms Electricity: 1,855,862,580 kWh | 962,743 | |
| Commercial, Institutional, and Agricultural Buildings | All | Natural Gas: 18,162,374 therms Electricity: 1,181,331,358 kWh | 386,753 | Natural Gas: 35,862,112 therms Electricity: 1,342,822,146 kWh | 349,373 | |
| Manufacturing and Construction Buildings | All | Natural Gas: 17,177,369 therms Electricity: 686,002,430 kWh | 309,449 | Natural Gas: 13,143,126 therms Electricity: 1,025,769,024 kWh | 244,417 | |
| Energy Industries | 1 & 3 | 2 CHP and District Energy facilities 1 Waste to Energy facility ^a 3 Biomass and Auxiliary Power facilities ^a | 121,252 | 2 CHP and District Energy facilities 1 Waste to Energy facility ^a 3 Biomass and Auxiliary Power facilities ^a | 98,554 | |
| Fugitive Emissions from Oil and Natural Gas Systems | 1 | 1 Natural Gas Distribution and Transportation facility 1 Crude Petroleum & Natural Gas Extraction site | 58,222 | 1 Natural Gas Distribution and Transportation facility 1 Crude Petroleum & Natural Gas Extraction site | 41,066 | |
| Agriculture, Forestry and Other Fishing Activities | 1 | Off-road agricultural vehicles using diesel or gasoline | 2,675 | Off-road agricultural vehicles using diesel or gasoline | 2,658 | |
| TOTAL | | | 1,908,637 | | 1,698,809 | |

NOTES:

^a. Biogenic emissions from these facilities are not included in the inventory; only non-biogenic CH₄ and N₂O emissions are included, consistent with the GPC Protocol.

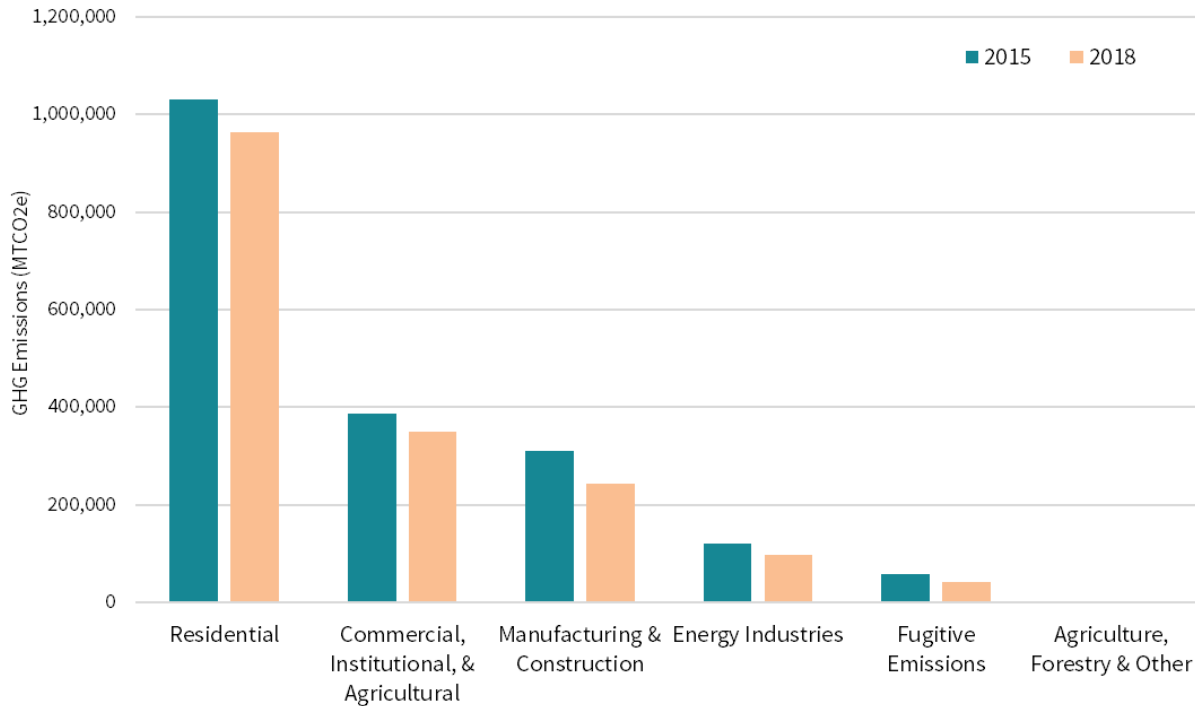


Figure A-1: 2015 & 2018 Energy Emissions by Sub-sector

RESIDENTIAL BUILDINGS

This category includes direct emissions from the consumption of natural gas and indirect emissions from grid-supplied electricity by residential buildings in unincorporated areas. Direct GHG emissions from natural gas consumption in residential buildings are calculated using SoCalGas natural gas consumption data and emission factors from the Climate Registry.⁵ Indirect GHG emissions from electricity consumption in residential buildings are calculated using data from SCE including electricity consumption, emission factors, and power mix. In 2018, SCE’s power mix was 36 percent eligible renewable, 10 percent hydropower and nuclear (carbon-free), 17 percent natural gas, and 37 percent unspecified fossil-fuel sources. SCE’s emission rate for 2018 electricity was 513 pounds per MWh.⁶ Emissions associated with transmission and distribution losses are accounted using a loss factor of 4.8 percent for California from EPA eGRID.⁷

Data Sources:

- SCE Consumption Data
Provided by SoCal Edison via County DRP (2021)
- SoCalGas Consumption Data
Provided by SoCalGas via County DRP (2021)
- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>

⁵ The Climate Registry, Default Emission Factors. May 1, 2018. Available at: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf>. Accessed January 2021.

⁶ California Energy Commission (CEC), 2018 Power Content Label. July 2019. Available at: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Southern_California_Edison.pdf. Accessed January 2021.

⁷ EPA, eGRID. 2018. Available at: <https://www.epa.gov/eGRID>. Accessed January 2021.

- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf> (the 2018 document was the latest available at the time the inventories were prepared)
- EPA eGRID
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-eGRID>

COMMERCIAL AND INSTITUTIONAL BUILDINGS

This category includes direct emissions from the consumption of natural gas and indirect emissions from grid-supplied electricity by non-residential buildings including commercial, municipal, institutional (such as schools, hospitals, and other public facilities) and agricultural buildings. Direct GHG emissions from natural gas consumption in non-residential buildings are calculated using SoCalGas natural gas consumption data and emission factors from The Climate Registry.⁸

In June 2018, non-residential customers in unincorporated Los Angeles County were automatically enrolled in the Clean Power Alliance’s (CPA) “Clean” rate option. While participation data for 2018 were unavailable when the 2018 inventory was developed, a July 2021 member status report indicated a 98 percent participation rate for all non-residential customers in unincorporated Los Angeles County in 2021.⁹ For purposes of the 2018 GHG inventory, it is conservatively assumed that half the annual electricity consumption is attributed to SCE and half to CPA because full CPA enrollment for non-residential customers was not completely in effect until 2019. Under the Clean rate option in 2018, non-residential customers received 61 percent of their electricity from eligible renewable sources via the CPA, 26 percent from carbon-free sources like hydropower, and 13 percent from unspecified fossil-fuel sources like natural gas and coal. GHG emissions from CPA-provided electricity are calculated using CPA data including electricity consumption, emission factors, and power mix.¹⁰ CPA’s emission rates for 2018 were 10.6 pounds per MWh for the “Lean” rate and 9.8 pounds per MWh for the Clean rate.¹¹ GHG emissions from SCE-provided electricity are calculated using SCE data including electricity consumption, emission factors, and power mix. SCE’s emission rate for 2018 electricity was 513 pounds per MWh.¹² Emissions associated with transmission and distribution losses are accounted using a loss factor of 4.8 percent for California from the U.S. EPA’s eGRID2018 Summary Table (WECC California subregion).¹³

Data Sources:

- SCE Consumption Data
Provided by SoCal Edison via County DRP (2021)
- SoCalGas Consumption Data
Provided by SoCalGas via County DRP (2021)

⁸ The Climate Registry, Default Emission Factors. May 1, 2018. Available at: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf>. Accessed January 2021.

⁹ CPA, Member Status Report: Los Angeles County. July 28, 2021.

¹⁰ CEC, 2018 CPA Power Content Label. July 2019. Available at: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Clean_Power_Alliance.pdf. Accessed January 2021.

¹¹ The Climate Registry, Utility-Specific Emission Factors. 2020. Available at: <https://www.theclimateregistry.org/our-members/cris-public-reports/>. Accessed January 2021.

¹² Edison International, 2020 Sustainability Report. 2021. Available at: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf>. Accessed January 2021.

¹³ EPA, eGRID. 2018. Available at: <https://www.epa.gov/eGRID>. Accessed January 2021.

- CPA Member Status Report (July 28, 2021)
Provided by CPA via County CSO (July 28, 2021)
- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission Factor
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLLogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLLogin.aspx)
- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf>
- Climate Registry Information System (CRIS)
Link: [https://cris4.org/\(S\(zr3twbbnour5a5jfb1iykcx\)\)/frmLLogin.aspx](https://cris4.org/(S(zr3twbbnour5a5jfb1iykcx))/frmLLogin.aspx)
- EPA eGRID
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid>

MANUFACTURING AND INDUSTRIAL BUILDINGS

This category includes direct emissions from the consumption of natural gas and indirect emissions from grid-supplied electricity consumption in manufacturing and industrial buildings. This category also includes direct emissions from fossil fuel combustion for electricity and heat generation by stationary equipment (such as boilers, furnaces, burners, turbines, heaters, incinerators, engines and flares) and off-road equipment (such as vehicle and mobile machinery) that are used inside building property premises.

GHG emissions from natural gas and electricity consumption are estimated using the same assumptions and methods stated under Commercial and Institutional Buildings above.

Emissions from fuel combustion of other energy sources in manufacturing facilities are documented using the California Air Resource Board’s (CARB) Pollution Mapping Tool.¹⁴ This tool provides CH₄, CO₂ and N₂O from on-site combustion and industrial processes for each facility location. CARB’s OFFROAD2017 ORION¹⁵ tool is used to estimate emissions from fuel consumption by industrial and construction equipment used inside building premises. This tool provides daily CO₂ emissions and annual fuel consumption of diesel, gasoline and natural gas by manufacturing and construction sectors for Los Angeles County as a whole, including cities. (This area is referred to herein as “Countywide.”) Emissions from unincorporated Los Angeles County are estimated by scaling countywide GHG emissions based on the number of jobs in manufacturing and construction sectors in unincorporated areas in 2017.

Note: This category only reports fossil fuel combustion-related emissions from CARB’s Pollution Mapping Tool. These emissions do not include fugitive process emissions from manufacturing facilities since they are reported under the IPPU category. Emissions reported in CARB’s Pollution Mapping tool are largely informed by emissions reported under the CARB’s Mandatory GHG Reporting Regulations (MRR).¹⁶ The MRR only requires facilities emitting more than 10,000 metric tons carbon dioxide equivalent (MTCO_{2e}) to report their emissions. Emissions from facilities emitting under 10,000 MTCO_{2e} are not available and have therefore not been accounted in this inventory.

¹⁴ CARB, Pollution Mapping Tool. 2018. Available: https://ww3.arb.ca.gov/ei/tools/pollution_map/. Accessed January 2021.

¹⁵ CARB, OFFROAD ORION. 2018. Available at: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

¹⁶ CARB, Mandatory GHG Reporting Regulations. April 1, 2019. Available at: <https://ww2.arb.ca.gov/mrr-regulation>. Accessed January 2021.

Data Sources:

- SCE Consumption Data
Provided by SoCal Edison via County DRP (2021)
- SoCal Gas Data
Provided by SoCal Gas via County DRP (2021)
- CPA Membership Report
Provided by CPA via County CSO (July 28, 2021)
- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- EPA eGRID
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid>
- CARB OFFROAD2017 ORION
Link: <https://www.arb.ca.gov/orion/>
- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- Jobs in Manufacturing and Construction
Link: <https://scag.ca.gov/sites/main/files/file-attachments/losangelescountyjp.pdf?1605653130>

ENERGY INDUSTRIES

The Energy Industries category includes emissions from primary fuel production (such as coal mining and oil and gas extraction), fuel processing and conversion (such as coal to coke in coke ovens) and on-site fuel combustion for auxiliary energy production (such as electricity generation and district heating).

Emissions from fuel and energy production in combined heat and power (CHP) plants, biomass power stations, and waste to energy facilities in unincorporated areas are documented using CARB's Pollution Mapping Tool.¹⁷ For CHP and district energy source, the inventory includes direct natural gas combustion emissions from the Pitchess Cogeneration Station in Saugus and the Olive View Medical Center Cogeneration Station in Sylmar. Pitchess Cogeneration Station and the Olive View Medical Center Cogeneration Station were included because these facilities are both within unincorporated Los Angeles County and owned and operated by the County. Emissions data for all three facilities were obtained from CARB's 2021 MRR database.

Waste-to-Energy facilities include Bradley Landfill in Sun Valley and the Calabasas Landfill in Agoura. These facilities convert landfill methane to energy. Only non-biogenic CH₄ and N₂O emissions from these facilities were included in the inventory because the CO₂ emissions from landfill gas combustion are considered biogenic (not anthropogenic) emissions sources by the GPC and should therefore be excluded.¹⁸ Biomass and auxiliary power facilities include Ameresco Chiquita Energy LLC in Castaic, Calabasas Landfill in Agoura, MM Lopez Energy LLC in Lake View Terrace, and Sunshine Gas Producers LLC in Sylmar. Similar to the waste to energy facilities above, only non-biogenic CH₄ and N₂O emissions from these facilities were included in the inventory.

¹⁷ Emissions reported under CARB's Pollution Mapping Tool are largely informed by emissions reported under CARB's Mandatory GHG Reporting Regulations (MRR). The MRR only requires facilities emitting more than 10,000 MTCO₂e to report their emissions. Emissions from facilities emitting under 10,000 MTCO₂e are not available and have therefore not been accounted in this inventory.

¹⁸ According to the GPC, "Biogenic emissions are those that result from the combustion of biomass materials that store and sequester CO₂, including materials used to make biofuels (e.g. trees, crops, vegetable oils, or animal fats)."

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>

AGRICULTURE, FORESTRY AND OTHER FISHING ACTIVITIES

Emissions from direct fuel combustion associated with agricultural activities typically result from the operation of farm vehicles and machinery (stationary and mobile) and generators to power lights, pumps, heaters, coolers and other equipment. CARB's OFFROAD2017 ORION¹⁹ tool was used to estimate Countywide emissions from direct fuel consumption by agricultural equipment (including plant and animal cultivation, afforestation and reforestation activities, and fishery activities). GHG emissions from the unincorporated Los Angeles County areas were estimated by scaling countywide GHG emissions using the cropland acres in unincorporated areas in 2016.

Note: For the agricultural sector, this category only reports emissions associated with off-road vehicles and equipment. Emissions from agricultural buildings (natural gas and electricity consumption) are reported under the commercial and institutional buildings category.

Data Sources:

- CARB OFFROAD ORION
Link: <https://www.arb.ca.gov/orion/>
- NASS CropScape
Link: <https://nassgeodata.gmu.edu/CropScape/>

FUGITIVE EMISSIONS FROM OIL AND NATURAL GAS SYSTEMS

Fugitive emissions include all intentional and unintentional emissions from the extraction, processing, storage and transport of oil and natural gas to the point of final use. The primary sources of fugitive emissions from oil and natural gas systems include equipment leaks, evaporation and flashing losses, venting, flaring, incineration, and accidental releases. GHG emissions from oil and natural gas systems in unincorporated areas are documented using CARB's Pollution mapping tool.²⁰

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/

¹⁹ CARB, OFFROAD ORION. 2018. Available at: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

²⁰ CARB, Pollution Mapping Tool. 2018. Available: https://ww3.arb.ca.gov/ei/tools/pollution_map/. Accessed January 2021.

Transportation

The transportation sector includes emissions from fuel (gasoline, diesel, and natural gas) and electricity consumption in on-road passenger vehicles (cars, light-, medium-, and heavy-duty trucks), buses, and rail systems. Note that while Metro and Metrolink have GHG inventories for the transportation services provided by the respective agencies, they do not estimate emissions by local jurisdiction. Therefore, bus and railway emissions are independently estimated for unincorporated Los Angeles County. **Table A-2** presents scopes, activity data, and emissions for the transportation sector. **Figure A-2** shows the contribution of each subsector to the Transportation sector for both the 2015 and 2018 inventories.

Table A-2: Transportation Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|-----------------------|-------|---|---------------------------------|---|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| Transportation | | | | | |
| Passenger Vehicles | 1 & 3 | 18,982,668 miles/day | 2,797,360 | 19,074,692 miles/day | 2,665,824 |
| Buses | 1 & 3 | 1,392,461,970 miles/year | 31,360 | 1,143,144,015 miles/year | 29,371 |
| Railway | 1 & 3 | Metro: 634,484,952 miles/year Metrolink: 24,798 riders/day | 9,413 | Metro: 689,995,896 miles/year Metrolink: 25,690 riders/day | 9,490 |
| TOTAL | | | 2,838,133 | | 2,704,685 |

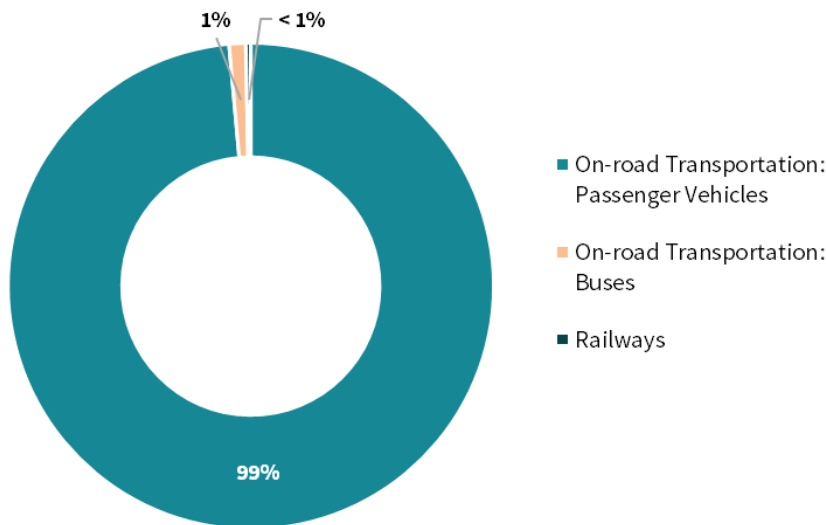


Figure A-2: 2015 & 2018 Transportation Emissions by Sub-sector

ON ROAD TRANSPORTATION: PASSENGER VEHICLES AND TRUCKS

Emissions from passenger vehicles and trucks are estimated based on daily vehicle trips and vehicle miles traveled (VMT) by each vehicle type. VMT for unincorporated Los Angeles County is estimated using a trip-based travel forecasting model developed by Southern California Association of Governments (SCAG). SCAG's 2016 Regional Travel Demand Model, the version for which a complete dataset was available at the time of modeling, was used by Fehr and Peers (F&P) to analyze the transportation network and socioeconomic data such as population, household, and employment, to forecast daily vehicle trips and VMT for each traffic analysis zone (TAZ) within unincorporated Los Angeles County.²¹

The 2016 SCAG model has a base year of 2012 and horizon year of 2040. VMT for the inventory years, including 2015 and 2016, was linearly interpolated from the 2012 and 2040 model values. Daily VMT are estimated using the origin-destination analysis approach (full accounting method). The Full Accounting Method accounts for VMT depending on where the trip is starting and ending. This method tracks (and "fully accounts" for) all the vehicle trips being generated by a geographic area (i.e., a city) across the entire regional network, and allows for the isolation of different types of VMT as follows.

- **Internal-internal (II) VMT:** Includes all trips that begin and end entirely within the geographic area of study.
- **One-half of internal-external (IX) VMT:** Includes one-half of trips with an origin within the geographic area of study and a destination outside of this area. This assumes that the geographic area under study shares half the responsibility for trips traveling to other areas.
- **One-half of external-internal (XI) VMT:** Includes one-half of trips with an origin outside of the geographic area of study and a destination within this area. Similar to the IX trips, the geographic area of study shares the responsibility of trips traveling from other areas.
- **External-external (XX) VMT:** Trips through the geographic area of study are not included. This approach is consistent with the concept used for the IX and XI trips. Therefore, the XX VMT would be assigned to other areas that are generating the trips.

The Full Accounting Method was utilized to develop the VMT estimates for unincorporated Los Angeles County because it more fully accounts for the length of regional travel generated in unincorporated Los Angeles County, not just the travel occurring on unincorporated Los Angeles County's in-boundary roadways. As noted above, the inventory includes emissions from trips that begin and/or end within unincorporated Los Angeles County. It does not include through trips that neither begin nor end within the unincorporated areas. Daily VMT is then multiplied by 347 to

²¹ VMT estimates for large urban areas are commonly developed using regional travel demand models. These models are developed and periodically updated, calibrated, and validated for use in long range infrastructure planning, environmental impact assessments, and air quality conformity analyses by local and regional agencies. Trip-based travel forecasting models generate (output) daily vehicle trips for each TAZ across various trip purposes based on inputs such as the transportation network and socioeconomic data such as population, household, and employment. SCAG staff maintain a regional travel demand model that uses a four-step model process to arrive at a set of forecast vehicle trips based on the data described above.

calculate annual VMT.²² VMT was estimated for passenger vehicles (light-duty cars and trucks) and trucks (medium- and heavy-duty trucks).

Emissions were calculated using CARB's Emission FACTors 2021 model (EMFAC2021).²³ EMFAC2021 generates vehicle emission rates by area, year, vehicle type, fuel type, speed, and other parameters. EMFAC2021 was run for Los Angeles County for 2015 and 2018 in "emission rate" mode to generate vehicle travel emission factors for all vehicle types and fuel types for aggregated (average) speeds. The EMFAC vehicle type categories were aligned with the two categories of VMT provided by Fehr & Peers (passenger and truck).²⁴ The EMFAC emission factors by vehicle type and fuel assigned to passenger VMT and truck VMT were then weighted using Countywide VMT and trip generation profiles for each vehicle type modeled in EMFAC2011.²⁵ GHG emissions were then calculated by multiplying the weighted emission factors for passenger vehicles and trucks by the origin-destination VMT for passenger vehicles and trucks supplied by Fehr & Peers.

Data Sources:

- 2016 SCAG Regional Travel Demand Model
Provided by SCAG
 - Fehr & Peers Modeling Analysis (July 29, 2019; December 2021; January 2022; February 2023)
 - EMFAC2021 Model, v1.0.1
- Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

ON ROAD TRANSPORTATION: BUSES

GHG emissions from fuel and energy consumption by bus transit systems and paratransit agencies are accounted from Federal Transit Administration's (FTA) National Transit database at the Countywide level (not for unincorporated Los Angeles County areas separately).²⁶ The agency included in the GHG inventory includes the Los Angeles County Metropolitan Transportation Authority (Metro). Electricity consumption was not available from the National Transit database. To account for electricity consumption and associated indirect GHG emissions, the total gasoline and diesel fuel use from the National Transit database was reapportioned based on the percentage of VMT by fuel type (diesel, gasoline, natural gas, electricity) from EMFAC2021 for the aggregated OBUS, SBUS, and UBUS categories in EMFAC. The CPA Clean emission factor is applied to all electricity consumption by electric buses serving unincorporated Los Angeles County areas. Emission factors for gasoline, diesel, and compressed natural (CNG) gas-powered buses are taken from EMFAC2021 to calculate CO₂ and N₂O emissions. Total estimated Countywide GHG emissions were then scaled by Metro ridership forecasts for unincorporated county areas to estimate GHG emissions for the unincorporated Los Angeles County areas.²⁷

²² The annualization factor of 347 was provided by Fehr & Peers to estimate annual vehicle activity based on daily vehicle activity generated by SCAG's 2016 Regional Travel Demand Model.

²³ CARB, EMFAC2021 Model. Version v.1.0.1. 2021. Available at: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

²⁴ The "passenger vehicle" category corresponds to EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD. The "trucks" category corresponds to EMFAC vehicle categories LHDT1, LHDT2, MHDT, HHDT, and MH.

²⁵ For example, if the LDA vehicle type represents 70% of VMT at an emission rate of 300 grams CO₂ per mile and the LDT1 vehicle type represents 30% of VMT at an emission rate of 350 grams CO₂ per mile, the VMT-weighted emission rate for LDA and LDT1 vehicles combined is calculated as follows: 70% * 300 + 30% * 350 = 315 grams CO₂ per mile.

²⁶ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

²⁷ Metro, Interactive Estimated Ridership Stats. 2021. Available at: <https://isotp.metro.net/MetroRidership/Index.aspx>. Accessed January 2021.

Data Sources:

- FTA National Transit Database
Link: <https://www.transit.dot.gov/ntd/ntd-data>
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- Metro Bus Ridership
Link: <https://isotp.metro.net/MetroRidership/Index.aspx>

RAILWAY

Diesel fuel and electricity consumed by commuter rail systems are obtained from FTA's NTD.²⁸ The database reports diesel fuel consumption by Southern California Regional Rail Authority (Metrolink) and electricity consumption by Metro Rail. GHG emission factors for diesel locomotives were obtained from the EPA national GHG inventory and emission factors for electric propulsion were obtained from the EPA's Emissions & Generation Resource Integrated Database (eGRID).²⁹ These emission factors were multiplied by the diesel fuel and electricity consumption values obtained from NTD to generate GHG emissions for Los Angeles County as a whole. Total Countywide GHG emissions were then scaled based on Metro and Metrolink ridership forecasts for unincorporated county areas to estimate GHG emissions for the unincorporated Los Angeles County areas.

Data Sources:

- FTA National Transit Database
Link: <https://www.transit.dot.gov/ntd/ntd-data>
- EPA National GHG Inventory Emission Factors
Link: https://www.epa.gov/sites/production/files/2015-12/documents/emission-factors_nov_2015.pdf
- EPA eGRID Database
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid>
- Metro Ridership
Link: http://media.metro.net/projects_studies/union_station/images/LAUSMP_Presentation_2013_0315.pdf

²⁸ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

²⁹ EPA, eGRID. 2018. Available at: <https://www.epa.gov/egrid>. Accessed January 2021.

Waste and Wastewater

Emissions generated at landfills, biological treatment (composting and anaerobic digestion) and incineration facilities, and wastewater treatment plants are reported under the waste sector. These subsectors are discussed in more detail below. **Table A-3** presents scopes, activity data, and emissions for the water and wastewater sector. **Figure A-3** compares 2015 and 2018 GHG emissions from waste and wastewater by sub-sector.

Table A-3: Waste and Wastewater Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|-------------------------------------|-------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| Waste and Wastewater | | | | | |
| Solid Waste Disposal | 1 & 3 | Disposal Tonnage: 721,493 tons | 404,604 | Disposal Tonnage: 935,512 tons | 407,578 |
| Biological Treatment of Solid Waste | 1 & 3 | Composting Tonnage: 51,111 tons | 10,214 | Composting Tonnage: 27,182 tons | 5,309 |
| Waste Incineration* | 1 & 3 | Incineration Tonnage: 3,303 tons | 1,184 | Incineration Tonnage: 1,876 tons | 547 |
| Wastewater Treatment | All | Population: 1,058,871 | 55,179 | Population: 1,082,365 | 56,495 |
| TOTAL | | | 469,997 | | 469,382 |

NOTE: Totals exclude Waste Incineration which is accounted for under Stationary Energy

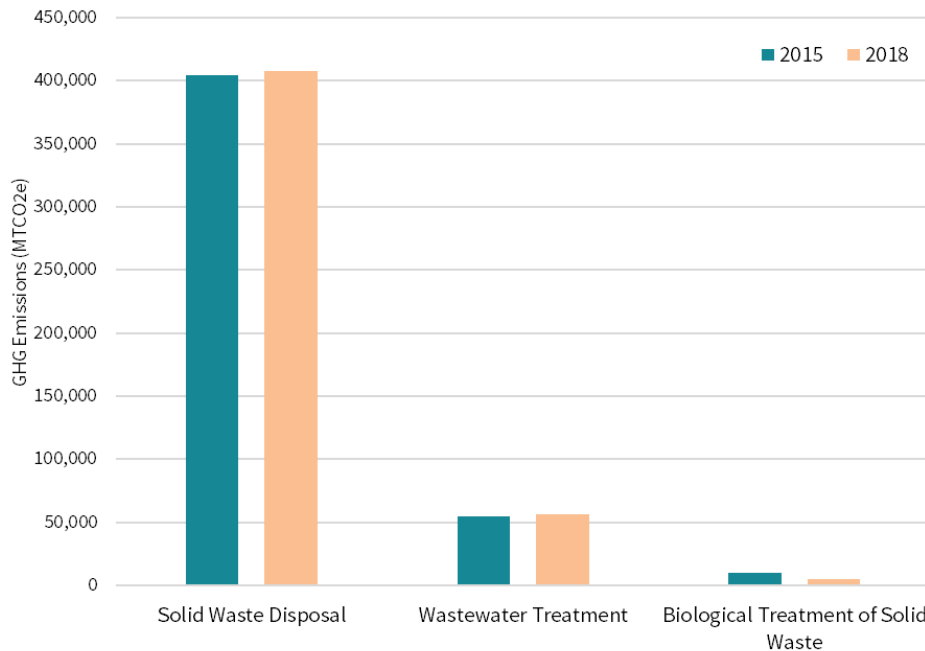


Figure A-3: 2015 & 2018 Waste and Wastewater Emissions by Sub-sector

SOLID WASTE DISPOSAL

Landfill-related emissions are estimated using CARB's first order of decay (FOD) model,³⁰ based on waste disposal tonnage and composition data from CalRecycle's Solid Waste Integrated System (SWIS)³¹ and County Public Works Solid Waste Information Management System (SWIMS) reports.³² Using these reports, unincorporated Los Angeles County disposal tonnage data were obtained for 62 open and closed landfills where unincorporated Los Angeles County residents and businesses disposed their municipal solid waste prior to 2018.

Most of the 62 in- and out-of-county landfills used by unincorporated Los Angeles County residents and businesses have landfill gas collection (LFG) systems with combustion control. These systems collect LFG for flaring, energy production, or for producing liquefied natural gas (LNG), CNG, and producer gas. GHG emissions from landfill gas collection are estimated based on LFG collection rate, LFG flow to energy, and methane content from CalRecycle's 2010 Landfill Gas Master.³³ To determine Los Angeles County's share of methane removal at these landfills (since many other jurisdictions contribute waste to these same landfills), total emissions from these landfills were apportioned based on waste disposed in the landfills by Los Angeles County versus California. California's disposal tonnage data are obtained using CalRecycle's SWIS reports for statewide disposal at the same facilities, where unincorporated Los Angeles County residents and businesses deposited municipal solid waste between 1998 and 2018. The same was done to estimate the unincorporated Los Angeles County's share of emissions at these landfills.

GHG emissions from landfills and landfill gas flaring for the unincorporated Los Angeles County are scaled based on waste volume directed to in- and out-of-county landfills between 1998 and 2018. Emissions associated with methane flaring and recovery from landfills are reported under the waste sector. However, if the methane is recovered (via biogas or digester gas) and used for electricity generation, then the emissions are reported under the stationary energy sector as waste-to-energy facilities or biomass and auxiliary power facilities.

Data Sources:

- CARB FOD Model
Link: <https://ww2.arb.ca.gov/resources/documents/landfill-methane-emissions-tool>
- CalRecycle SWIS Reports
Link: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>
- LADPW SWIMS Reports
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>
- CalRecycle Landfill Gas Master
Link: <https://www2.calrecycle.ca.gov/PublicNotices/Documents/1642>

³⁰ CARB, Landfill Gas Tool. 2021. Available at: <https://ww2.arb.ca.gov/resources/documents/carbs-landfill-gas-tool>. Accessed January 2021.

³¹ CalRecycle, SWIS Facility/Site Search. 2021. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed January 2021.

³² LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

³³ CalRecycle, Landfill Gas Master. Available at: <https://www2.calrecycle.ca.gov/PublicNotices/Documents/1642>. Accessed January 2021.

BIOLOGICAL TREATMENT OF SOLID WASTE

Biological treatment of solid waste refers to the composting and anaerobic digestion of organic waste (such as food waste, garden and park waste, sludge, and other organic waste sources).

Composting

In 2018, the County diverted waste to eight in-county and over 50 out-of-county composting facilities. Waste volume diverted by unincorporated Los Angeles County areas for composting was obtained from County Public Works SWIMS reports for transfer stations and non-disposal facilities.³⁴ Waste composted at in-county facilities is assumed to be equivalent to annual waste processing capacity of in-county facilities. These data are obtained from 2019 Organics Waste Management Reports by County Department of Public Works. Waste composted at out-of-county facilities is considered to be the difference between total waste diverted and capacity of in-county facilities. GHG emissions are calculated using wet and dry waste parameters based on waste composition disposed at in and out-of-county recycling or diversion facilities. These data are obtained from Public Works Organics Waste Management Reports.³⁵ GHG emissions from composting for unincorporated Los Angeles County are scaled based on waste volume directed to in- and out-of-county facilities in 2018.

Anaerobic Digestion

The Joint Water Pollution Control Plant (JWPCP) serves 78 Cities as well as many unincorporated communities, also manages sewage sludge using Anaerobic Digester Units. Annual waste volume processed at these facilities is obtained from 2019 Organics Waste Management Reports by Public Works.³⁶ GHG emissions produced by this facility are estimated based on content of volatile solids in food waste and sewage sludge processed in respective facilities.

GHG emissions from anaerobic digestion facilities for unincorporated Los Angeles County are scaled based on population of unincorporated areas in 2018 compared to the total Countywide population. Since the JWPCP facility uses biogas or digester gas for energy production, emissions from anaerobic digestion are included under the waste sector for informational purposes, but they are reported under stationary energy (energy industries).

Data Sources:

- LADPW SWIMS Reports
Link: <https://dpw.lacounty.gov/epd/swims/>
- Public Works 2019 Organics Waste Management Reports
Link: <https://dpw.lacounty.gov/epd/swims/News/swims-more-links.aspx?id=4>

WASTE INCINERATION

Incineration is a controlled industrial process which is often paired with energy recovery. In 2018, the County diverted waste to three waste incineration facilities. Two of the facilities – the Commerce Refuse-to-Energy Facility (discontinued in June 2018) and the Southeast Resource Recovery Facility – are located in the county. Additionally, waste was diverted to Covanta

³⁴ LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

³⁵ Ibid

³⁶ Ibid

Stanislaus Inc., which is an out-of-county facility. GHG emissions from these facilities are obtained from CARB's MRR GHG database.³⁷

To estimate unincorporated Los Angeles County's emissions, total countywide GHG emissions from waste incineration facilities are scaled based on waste diverted by unincorporated communities to these facilities in 2018. CalRecycle's 2018 SWIS reports are used to determine the waste volume diverted to these facilities.³⁸ Since these facilities are used for energy production, emissions are reported under stationary energy (energy industries).

Data Sources:

- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>
- CalRecycle SWIS Reports
Link: <https://www2.calrecycle.ca.gov/swfacilities/Directory/>

WASTEWATER TREATMENT

Emissions from wastewater treatment are estimated based on population served by sewer and septic systems in unincorporated areas. GHG emissions from wastewater treatment are estimated based on 2018 population data from the SCAG Growth and Forecast report.³⁹ Parameters and constants such as total organic carbon and protein consumption in wastewater are obtained from California GHG inventory documentation⁴⁰ and IPCC default parameters.⁴¹

Data Sources:

- SCAG Growth and Forecast Report
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- California GHG Inventory
Link: <https://ww2.arb.ca.gov/ghg-inventory-data>
- IPCC Default Parameters
Link: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_2_Ch2_Waste_Data.pdf

Industrial Processes and Product Use

Emissions from the industrial processes and product use (IPPU) sector include HFC and PFC emissions from products such as refrigerants, foams, aerosols and fossil fuel-based lubricants and solvents are estimated by scaling statewide emissions from the product use category. Statewide GHG emissions from product use in residential, commercial, and transportation sectors are scaled based on unincorporated Los Angeles County's population.⁴² State-level HFC and PFC emissions from product use in industries including electronics, food processing, metal and

³⁷ CARB, Mandatory GHG Reporting Regulations. April 1, 2019. Available at: <https://ww2.arb.ca.gov/mrr-regulation>. Accessed January 2021

³⁸ CalRecycle, SWIS Facility/Site Search. 2021. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed January 2021.

³⁹ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁴⁰ CARB, GHG Inventory Data Archive. 2021. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁴¹ IPCC, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Waste Generation, Composition and Management Data. 2006. Available at: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_2_Ch2_Waste_Data.pdf. Accessed March 2022.

⁴² CARB, GHG Inventory Data Archive. 2021. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

machinery manufacturing, and others, are scaled based on state and unincorporated Los Angeles County industry output from respective industries and unincorporated Los Angeles County’s population.⁴³ Impact Analysis For Planning (IMPLAN) data were used to tabulate the economic outputs by industry for Los Angeles County and the State of California, to estimate the emissions from industry sectors including the lime, cement, and nitrogenous fertilizer manufacturing sectors. GHG emissions are further adjusted based on HFC prohibitions for both Senate Bill 1013 and the CARB HFC Regulation by assuming that the use of prohibited HFCs are phase out over 30 years from prohibition date for all HFC policies before 2018.⁴⁴ **Table A-4** presents scopes, activity data, and emissions for the IPPU sector.

Table A-4: IPPU Scope, Activity, and GHG Emissions

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|--------------|-------|---|---------------------------------|---|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| IPPU | | | | | |
| Product Use | 1 | Aerosols & fire retardants, residential & transportation refrigeration and air conditioning, foam use, industrial refrigeration and air conditioning, and non-aerosol solvents Population: 1,114,808 | 253,529 | Aerosols & fire retardants, residential & transportation refrigeration and air conditioning, foam use, industrial refrigeration and air conditioning, and non-aerosol solvents Population: 1,082,365 | 239,505 |
| TOTAL | | | 253,529 | | 239,505 |

Data Sources:

- California GHG Inventory
Link: <https://www.arb.ca.gov/cc/inventory/pubs/pubs.htm>
- HFC Prohibitions
Link: <https://ww2.arb.ca.gov/resources/fact-sheets/hydrofluorocarbon-hfc-prohibitions-california>
- SCAG Growth and Forecast Report
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- IMPLAN Data (proprietary)⁴⁵

⁴³ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁴⁴ CARB, HFC Prohibitions in California. November 29, 2018. Available at: <https://ww2.arb.ca.gov/resources/fact-sheets/hydrofluorocarbon-hfc-prohibitions-california>. Accessed January 2021.

⁴⁵ Impact Analysis For Planning (IMPLAN) data contain 546 sectors representing all private industries in the United States (anything from grain farming to surgical appliance manufacturing) as defined by the North American Industry Classification System (NAICS) codes. Employment, employee compensation, industry expenditures, commodity demands, relationships between industries, and more are collected to form IMPLAN’s ever-growing database. For more information, see: <https://www.implan.com/data/>.

Agriculture, Forestry, and Other Land Use

The AFOLU sector accounts for emissions from land-related changes and includes agriculture, forestry and aggregate sources (including biomass burning and fertilizer use). This sector also includes emissions from forest land conversion. Urban tree canopy and land cover statistics were tabulated by the California Center for Sustainable Communities at the University of California, Los Angeles (UCLA) Institute of Environment and Sustainability, using a tree canopy analysis developed by TreePeople and the University of Vermont with 2014 Los Angeles Region Imagery Acquisition Consortium (LARIAC) land cover data. Based on historic land conversion data from 2007-2016, approximately 212 hectares of forest land is converted to urban land each year in unincorporated county areas. The conversion of a single hectare results in a one-time emission of 169 MTCO_{2e}; this value was multiplied by 212 to estimate total annual land conversion emissions.⁴⁶

This sector does not include natural carbon sequestration and storage in the unincorporated Los Angeles County's natural lands, working lands, and urban forests because these sinks are part of the natural carbon cycle and are not anthropogenic emissions sources. Further, forest sinks are not currently included in CARB's statewide inventory or SB 32's statewide GHG emission reduction target for 2030.^{47,48} The statewide GHG inventory includes the "AB 32 GHG Inventory Sectors," which are anthropogenic emissions sources, a framework that is consistent with international and national GHG inventory practices and is aligned with requirements in AB 32.⁴⁹ CARB accounts for the exchange of ecosystem carbon between the atmosphere and the plants and soils in land, which includes forest sinks, in the Natural and Working Lands Ecosystem Carbon Inventory, which also includes the amount of carbon impacted by wildfire.⁵⁰ The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), for the first time, incorporates the contribution of natural and working lands (NWL) to the state's GHG emissions, as well as their role in achieving carbon neutrality by 2045 as mandated by AB 1279.⁵¹ However, the 2045 CAP's target of reducing emissions 85 percent below 1990 levels by 2045 aligns with the AB 1279 statewide target of reducing *anthropogenic* emissions to 85 percent below 1990 levels by 2045. Neither this statewide target nor the 2045 CAP's target incorporate emissions and sinks from the NWL sectors.^{52,53} Achieving the County's aspirational goal of carbon neutrality by 2045 may include a full accounting of natural carbon sequestration and storage in unincorporated Los Angeles County's natural lands in a future update to the 2045 CAP. The County may consider strategies to increase natural carbon removals through land management activities that prioritize restoring and enhancing ecosystem functions to improve resilience to climate change impacts, including more stable carbon stocks.

⁴⁶ NASS, CropScape. 2021. Available at: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

⁴⁷ Moreno, Adam. Lead Natural and Working Lands Climate Scientist. California Air Resources Board. Email correspondence with ESA on November 15, 2021.

⁴⁸ CARB, *California Greenhouse Gas Emissions for 2000 to 2020 Trends of Emissions and Other Indicators*. October 26, 2022. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed February 2023.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ CARB, *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan>. Accessed February 2023.

⁵² Ibid.

⁵³ It should be noted that the statewide target of carbon neutrality by 2045 includes NWL sectors, and the state's CO₂ capture and removal target of 100 million MTCO_{2e} by 2045 must compensate for any residual emissions from the AB 32 GHG Inventory sectors and NWL emissions to support achieving carbon neutrality.

Emissions from biomass burning (post-harvest agricultural burning) and fertilizer use (including liming, urea, organic and synthetic fertilizer) are reported under aggregate sources. Emissions from post-harvest biomass burning (barley, corn, wheat and almond) in unincorporated areas are estimated using 2016 cropland area from NASS CropScape⁵⁴ and relevant emission factors from the CARB 2000-2019 California GHG inventory.⁵⁵

Emissions from fertilizer use for agriculture in Los Angeles County are estimated based on California Department of Food and Agriculture (CDFA) annual reports and scaled for unincorporated areas using 2016 cropland area from NASS CropScape.⁵⁶ **Table A-5** presents scopes, activity data, and emissions for the AFOLU sector. **Figure A-4** shows the contribution of each subsector to the AFOLU sector for both the 2015 and 2018 inventories.

Table A-5: AFOLU Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|---|-------|--|---------------------------------|--|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| AFOLU | | | | | |
| Land Use Change | 1 | Total Forest Land Area: 52,498 acres ^a Forest Land Conversion: -212 hectares/year Urban Tree Canopy: 11,938 hectares ^a | 35,811 | Total Forest Land Area: 52,498 acres ^a Forest Land Conversion: -212 hectares/year Urban Tree Canopy: 11,938 hectares ^a | 35,811 |
| Aggregate Sources and Non-CO ₂ Emissions Sources | 1 | Biomass Burning (Crops): 61 acres Liming: 152 tons Urea Application: 1,026 tons Managed Soils: 5,374 tons | 25,048 | Biomass Burning (Crops): 61 acres Liming: 152 tons Urea Application: 1,026 tons Managed Soils: 5,374 tons | 25,048 |
| TOTAL | | | 60,860 | | 60,860 |

NOTES:

^a. Forest land area and urban tree canopy cover data are reported for informational purposes only. These data are not used to generate emissions sinks for inclusion in the GHG inventories.

⁵⁴ NASS, CropScape. 2021. Available at: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

⁵⁵ CARB, GHG Inventory Data Archive. 2021. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021

⁵⁶ CDFA, California Agricultural Statistics Review 2015-2016. 2016. Available at: <https://www.cdfa.ca.gov/statistics/PDFs/2016Report.pdf>. Accessed January 2021.

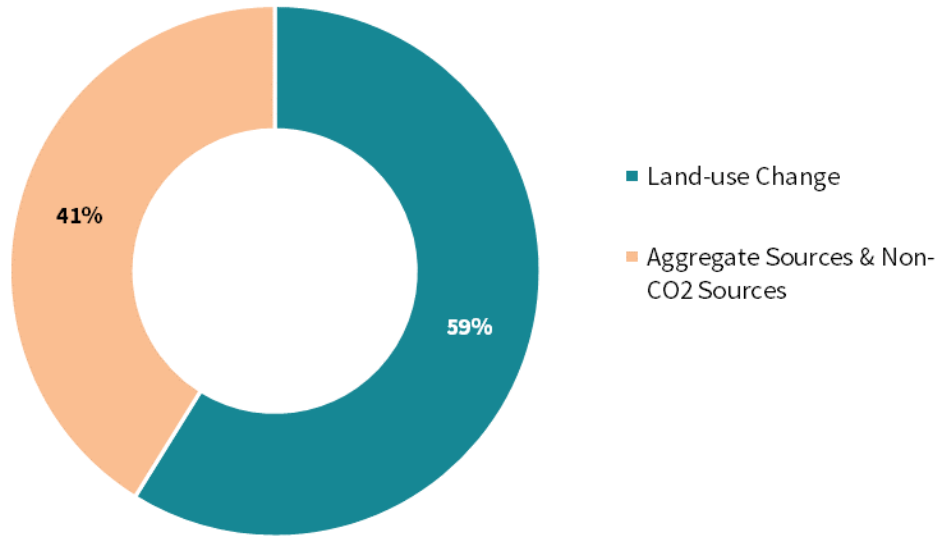


Figure A-4: 2015 & 2018 AFOLU Emissions by Sub-sector

Data Sources:

- NASS CropScape
Link: <https://nassgeodata.gmu.edu/CropScape/>
- CDFA, California Agricultural Statistics Review 2015-2016
Link: <https://www.cdfa.ca.gov/statistics/PDFs/2016Report.pdf>
- TreePeople, Los Angeles County Tree Canopy Map Viewer
Link: <https://www.treepeople.org/los-angeles-county-tree-canopy-map-viewer/>
- California GHG Inventory
Link: <https://www.arb.ca.gov/cc/inventory/pubs/pubs.htm>
- GIS analysis by UCLA Institute of Environmental Studies
Link: <https://lacounty.maps.arcgis.com/home/search.html?q=CURes%40lmu.edu&restrict=false>

Summary Emissions

Table A-6 presents total GHG emissions for all sectors and subsectors in the 2015 and 2018 GHG inventories. **Figure A-5** compares the 2015 and 2018 inventories with a sector breakdown.

Table A-6: GHG Emissions by Sector and Sub-sector

| CATEGORY | 2015 EMISSIONS (MTCO ₂ E) | 2018 EMISSIONS (MTCO ₂ E) |
|---|---|---|
| Transportation | 2,838,133 | 2,704,685 |
| Passenger Vehicles | 2,797,360 | 2,665,824 |
| Buses | 31,360 | 29,371 |
| Railway | 9,413 | 9,490 |
| Stationary Energy | 1,908,637 | 1,698,809 |
| Residential Buildings | 1,030,285 | 962,743 |
| Commercial, Institutional, and Agricultural Buildings | 386,753 | 349,373 |
| Manufacturing and Construction Buildings | 309,449 | 244,417 |
| Energy Industries | 121,252 | 98,554 |
| Fugitive Emissions from Oil and Natural Gas Systems | 58,222 | 41,066 |
| Agriculture, Forestry and Other Fishing Activities | 2,675 | 2,658 |
| Waste and Wastewater | 469,997 | 469,382 |
| Solid Waste Disposal | 404,604 | 407,578 |
| Biological Treatment of Solid Waste | 10,214 | 5,309 |
| Waste Incineration* | 1,184 | 547 |
| Wastewater Treatment | 55,179 | 56,495 |
| IPPU | 253,529 | 239,505 |
| Product Use | 253,529 | 239,505 |
| AFOLU | 60,860 | 60,860 |
| Land Use Change | 35,811 | 35,811 |
| Aggregate Sources and Non-CO ₂ Emissions Sources | 25,048 | 25,048 |
| TOTAL | 5,531,155 | 5,173,240 |

NOTE: Waste and Wastewater totals exclude Waste Incineration which is accounted for under Stationary Energy.

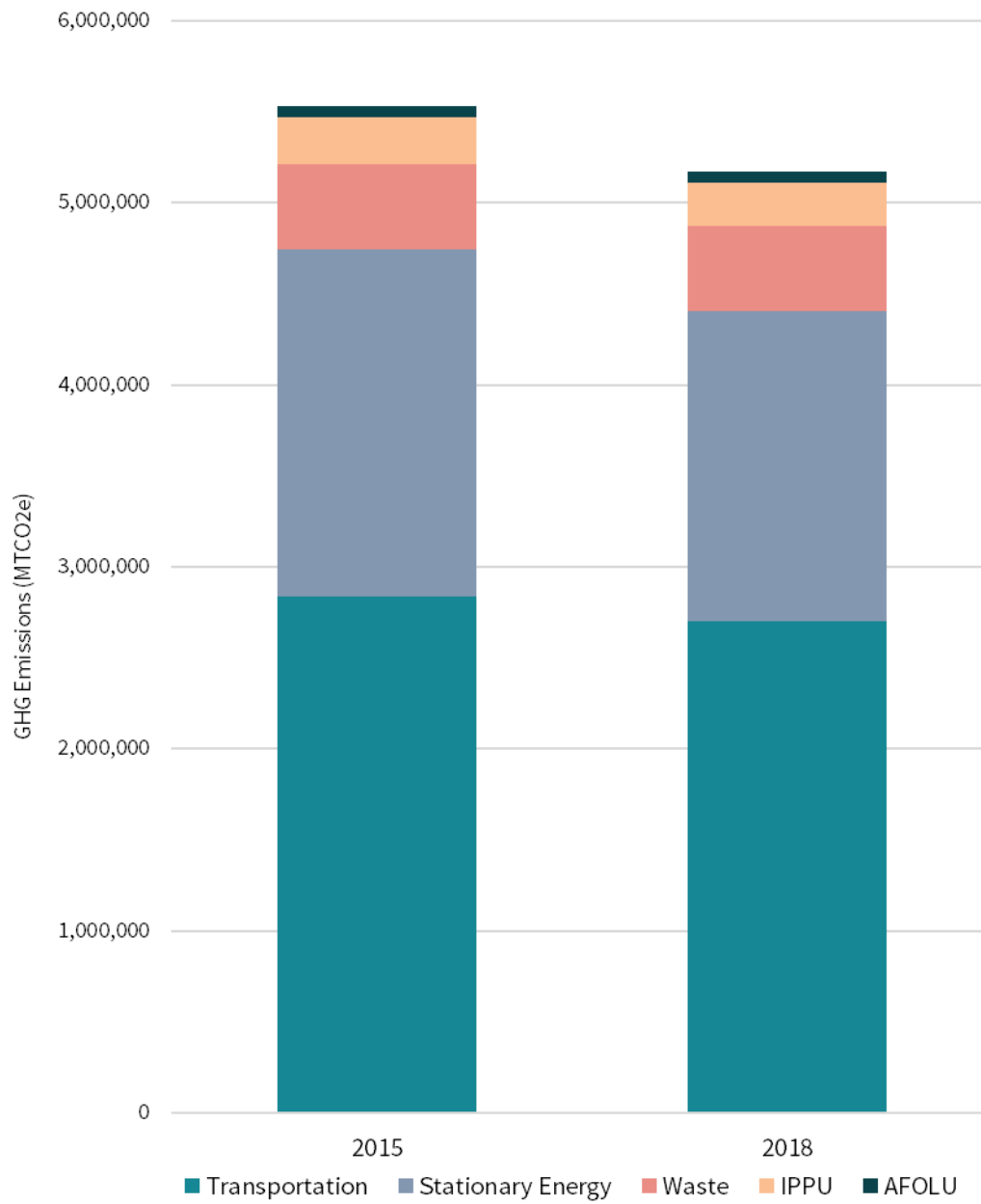


Figure A-5: 2015 and 2018 Emissions Inventory Comparison by Sector

A.2 1990 and 2010 Greenhouse Gas Inventory and Backcasting Methods

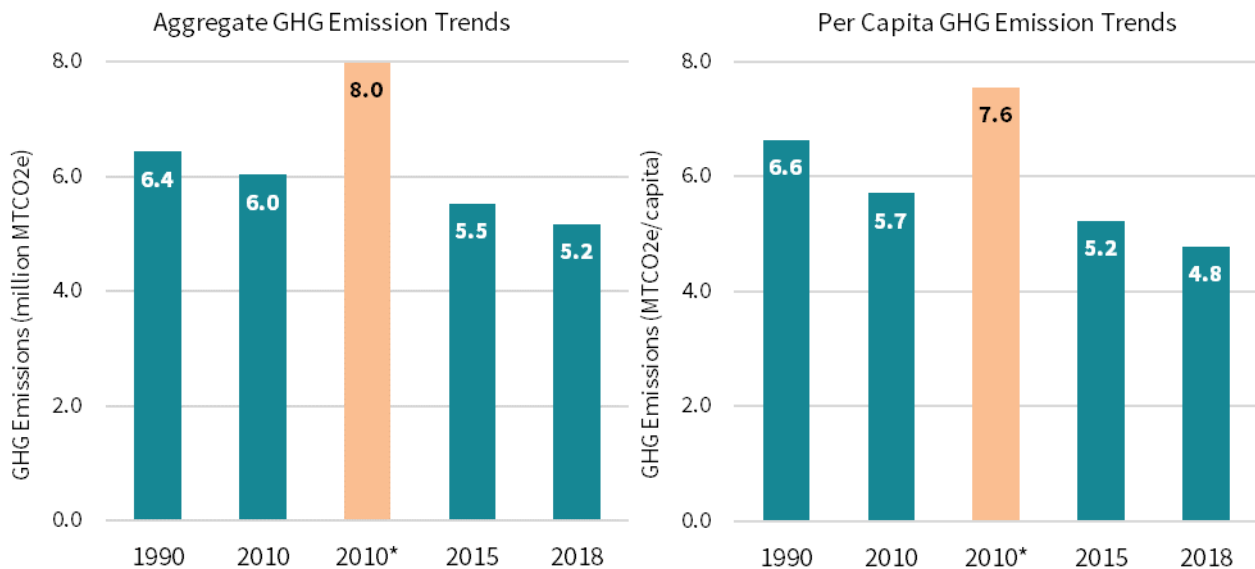
In 2015, the Los Angeles Regional Collaborative (LARC) and ICF International created a GHG emissions inventory for unincorporated Los Angeles County using the 2013 ICLEI U.S. Community Protocol.⁵⁷ The 2010 inventory accounted for Scope 1 and 2 emissions using AR4 GWP values. Additionally, Scope 3 emissions were estimated for additional sub-categories—including water conveyance, and water supply, treatment and distribution—that are not accounted for in the 2015 and 2018 GHG inventories. The 2015 and 2018 GHG emissions inventory methods follow the GPC protocol, as discussed above. The 2015 and 2018 inventories include GHG emissions from industrial processes, product use, fugitive emissions from oil and natural gas systems, and other aggregate carbon dioxide sources that were not included in the 2010 inventory. **Table A-7** shows the differences in sub-sectors included in the two protocols and respective inventories.

Table A-7: Sectors and Sub-sectors in ICLEI and GPC Protocol

| 2013 ICLEI US COMMUNITY PROTOCOL USED FOR 2010 INVENTORY | 2019 GPC PROTOCOL USED FOR 2015 AND 2018 INVENTORY |
|---|--|
| <ul style="list-style-type: none"> • Transportation <ul style="list-style-type: none"> ○ On-Road Transportation ○ Off-Road Transportation and Equipment | <ul style="list-style-type: none"> • Transportation <ul style="list-style-type: none"> ○ On-Road Transportation ○ Off-Road Transportation ○ Railways |
| <ul style="list-style-type: none"> • Building Energy • Stationary Sources | <ul style="list-style-type: none"> • Stationary Energy <ul style="list-style-type: none"> ○ Buildings ○ Energy Industries ○ Agriculture, Forestry and Other Fishing Activities ○ Fugitive Emissions from Oil and Natural Gas Systems |
| <ul style="list-style-type: none"> • Solid Waste • Wastewater Treatment | <ul style="list-style-type: none"> • Waste <ul style="list-style-type: none"> ○ Solid Waste ○ Biological Treatment of Solid Waste ○ Waste Incineration ○ Wastewater Treatment |
| <ul style="list-style-type: none"> • Agriculture (including livestock management) • Urban and Natural Forests (for informational purposes only) | <ul style="list-style-type: none"> • AFOLU <ul style="list-style-type: none"> ○ Land and Land-use Change (including Urban and Natural Forests) ○ Aggregate sources and non-CO2 emission sources |
| <ul style="list-style-type: none"> • Water Conveyance • Water Supply, Distribution and Treatment (for informational purposes only) | <ul style="list-style-type: none"> • IPPU <ul style="list-style-type: none"> ○ Product use |

⁵⁷ ICLEI – Local Governments for Sustainability USA, *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions*, Version 1.1, July 2013.

Due to differences in the two GHG protocols and accounting methods used for the 2010 inventory and the 2015 and 2018 inventories, it is not possible to directly compare emissions from each sector and sub-sector. To monitor emissions reduction between 2010 and 2015/2018 and to ensure consistency with previous County commitments (dating back to 1990), the GPC protocol was used to develop a backcasting model for unincorporated Los Angeles County’s emissions. GHG emissions from each sector and sub-sector were scaled from 2015 to 1990 by using County and state parameters and datasets discussed in **Table A-8** below. Using the backcasting model, it is estimated that GHG emissions in 2015 are eight percent lower than 2010 and 14 percent lower than 1990. However, per-capita GHG emissions in 2015 are nine percent lower than 2010 and 21 percent lower than 1990 despite the increase in population, as illustrated in **Figure A-6**. 2018 emissions are estimated to be 14 percent below 2010 emissions and 20 percent below 1990 emissions; per-capita GHG emissions in 2018 are estimated to be 16 percent below 2010 emissions and 28 percent below 1990 emissions, illustrating a substantial decline in total emissions both at the aggregate level and at the per-capita level.



* 2010 GHG emissions inventory reported in unincorporated Los Angeles County 2020 CCAP.

Figure A-6: 1990 to 2018 GHG Emissions Trends

Table A-8: Assumptions for Backcasting GHG Emissions to 2010 and 1990

| SECTOR/SUB-SECTOR | BACKCASTING PARAMETERS |
|---|---|
| Transportation | 3,450,566 (1990); 3,015,442 (2010) |
| On-Road Transportation | <ul style="list-style-type: none"> • VMT from on-road vehicles are estimated by interpolating VMT in unincorporated Los Angeles County for the years 2016 and 2040 as reported by Fehr & Peers using SCAG's 2016 regional travel demand model. • Emission factors for on-road vehicles (including passenger vehicles, trucks, and buses) are estimated by linearly interpolating EMFAC2021 emission rates from 2000-2020 to extrapolate emission rates to 1990. |
| Railways | GHG emissions are assumed to be constant from 1990 to 2015. |
| Stationary Energy | 2,226,141 (1990); 2,146,743 (2010) |
| Residential Buildings | Emissions from energy use in residential buildings are backcasted based on Countywide residential natural gas and electricity consumption as reported by CEC from 1990 to 2014. |
| Commercial and Institutional Buildings | Emissions from energy use in commercial buildings are backcasted based on Countywide non-residential natural gas and electricity consumption as reported by CEC from 1990 to 2014. |
| Manufacturing and Construction: Buildings | Emissions from energy use in commercial buildings are backcasted based on Countywide non-residential natural gas and electricity consumption as reported by CEC from 1990 to 2014. |
| Manufacturing and Construction: Equipment | <ul style="list-style-type: none"> • 2015 emissions from stationary equipment are scaled down using countywide GHG emissions based on construction and manufacturing jobs in unincorporated Los Angeles County. • GHG emissions are assumed to be constant from 1990 to 2015. |
| Energy Industries | GHG emissions for 1990-2010 are estimated as the average of reported emissions from 2011-2017. |
| Agriculture, Forestry and Other Fishing Activities | GHG emissions are assumed to be constant from 1990 to 2015. |
| Fugitive Emissions from Oil and Natural Gas Systems | GHG emissions are assumed to be constant from 1990 to 2015. |
| Waste | 511,965 (1990); 564,503 (2010) |
| Solid Waste Disposal | <ul style="list-style-type: none"> • Emissions from organic waste disposal between 2010 and 2014 are scaled based on waste disposal tonnage reported by PW's SWIMS database. • GHG emissions from 1990 to 2009 are backcasted based on population. |
| Biological Treatment of Solid Waste | <ul style="list-style-type: none"> • Emissions from biological treatment between 2010 and 2014 are scaled based on waste disposal tonnage reported by PW's SWIMS database. • GHG emissions from 1990 to 2009 are backcasted based on population. |
| Waste Incineration | GHG emissions are assumed to be constant from 1990 to 2015. |
| IPPU | 173,534 (1990); 243,456 (2010) |
| Product Use* | GHG emissions from 1990 to 2014 are backcasted based on population. |
| AFOLU | 25,048 (1990); 60,860 (2010) |
| Land-use Change | Average land conversion rates from 2006-2015 were used to estimate emissions back to 2006. Emissions were assumed to be zero from 1990-2006. |
| Aggregate Sources and Non-CO ₂ Emissions Sources | GHG emissions are assumed to be constant from 1990 to 2015. |

A.3 2018 to 2045 Business-as-Usual Forecasts

This section describes the approach for modeling business-as-usual (BAU) emissions, which represents future emissions based on current population and regional growth trends, land use growth patterns, and regulations or policies introduced before the 2018 baseline year. The BAU scenario demonstrates the growth in GHG emissions that would occur if no further action were to be taken by the County, the State of California, or the federal government after 2018.

The BAU forecast serves as a reference point for other forecasting scenarios, which include the Adjusted BAU that incorporates federal, state, and local actions (see CAP Appendix B: Adjusted Business-as-Usual Forecast and Emission Reduction Methods) and the GHG reductions from CAP implementation (see CAP Appendix B: GHG Reduction Measures and Actions). This section describes the BAU projections by sector, which are based on growth trends including current population and regional economic growth projections.

Additional details on the assumptions for each sector are included in the sections below.

Figure A-7 presents population and employment projections for unincorporated Los Angeles County from 2015 to 2045.

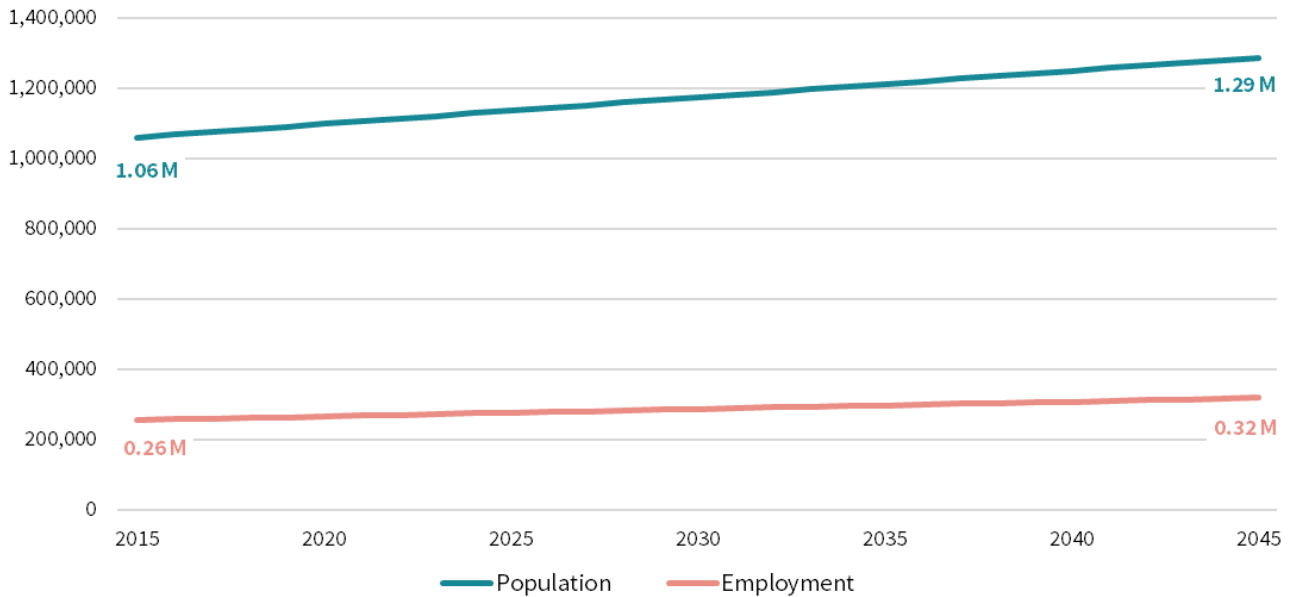


Figure A-7: Unincorporated Los Angeles County Population and Employment Projections

Stationary Energy

Table A-9 presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the stationary energy sector.

Table A-9: Stationary Energy GHG Emissions – 2018 Inventory and BAU Forecasts

| STATIONARY ENERGY SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|---|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Residential Buildings | 962,743 | 869,099 | 889,314 | 944,823 |
| Commercial, Institutional, and Agricultural Buildings | 349,373 | 429,107 | 441,191 | 469,816 |
| Manufacturing and Construction Buildings | 244,417 | 301,729 | 309,350 | 324,331 |
| Energy Industries | 98,554 | 29,495 | 29,526 | 29,587 |
| Fugitive Emissions from Oil and Natural Gas Systems | 41,066 | 49,130 | 49,251 | 49,493 |
| Agriculture, Forestry and Other Fishing Activities | 2,658 | 2,600 | 2,580 | 2,562 |
| TOTAL | 1,698,809 | 1,681,160 | 1,721,212 | 1,820,612 |

Residential Buildings

Energy consumption (electricity and natural gas) in residential buildings is forecasted based on building footprint projections for residential building stock in unincorporated Los Angeles County. Building footprint projections are based on historical trends from the County Assessor Parcel Database (2006-2018).⁵⁸ In 2019, residential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power rate option (50 percent eligible renewable), leading to an initial decline in residential building emissions through 2025, before they rise in 2030, 2035, and 2045 alongside population and economic growth. For purposes of the BAU projections it is assumed that CPA customers in unincorporated areas continue to receive 50 percent eligible renewable electricity until 2045 and the remaining customers continue to receive electricity from SCE with the emissions factors and participation rates held constant. GHG emissions in 2019 are calculated using 2018 natural gas and electricity emission factors with 2019 CPA participation rates. GHG emissions between 2020-2045 are calculated using 2020 electricity emission factors.

Data Sources:

- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission Factor
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report (July 28, 2021)
Provided by CPA via County CSO
- Climate Registry Information System (CRIS)
Link: [https://cris4.org/\(S\(zr3twbbnour5a5jfb1iykcxa\)\)/frmLILogin.aspx](https://cris4.org/(S(zr3twbbnour5a5jfb1iykcxa))/frmLILogin.aspx)
- UCLA analysis of County Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies

⁵⁸ UCLA Institute of Environmental Studies, Analysis of County Parcel Assessor's Data. 2018.

Commercial and Institutional Buildings

Energy consumption in commercial, institutional, and agricultural buildings is forecasted based on building footprint projections for non-residential building stock in unincorporated Los Angeles County. Commercial and Institutional building footprint projections are based on historical trends from the County Assessor Parcel Database (2006-2018). In June 2018, non-residential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power option. Under this program, over 95 percent of non-residential customers started receiving 50 percent eligible renewable electricity from CPA. For purposes of the BAU projections it is assumed that CPA customers in unincorporated areas continue to receive 50 percent eligible renewable electricity until 2045 and the remaining customers continue to receive electricity from SCE with the emissions factors and participation rates held constant. GHG emissions in 2019 are calculated using 2018 natural gas and electricity emission factors with 2019 CPA participation rates. GHG emissions between 2020-2045 are calculated using 2020 electricity emission factors. GHG emissions from agricultural buildings are assumed to remain constant.

Data Sources:

- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission Factor
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLLLogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLLLogin.aspx)
- UCLA analysis of County Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies

Manufacturing and Construction Buildings

ELECTRICITY AND NATURAL GAS

Energy consumption (electricity and natural gas) in manufacturing and industrial buildings is forecasted based on building footprint projections for non-residential building stock in unincorporated Los Angeles County. Building footprint projections are based on historical trends from the County Assessor Parcel Database (2006-2018).⁵⁹ In June 2018, non-residential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power option. Under this program, over 95 percent of non-residential customers started receiving 50 percent eligible renewable electricity from CPA. For purposes of the BAU projections it is assumed that CPA customers in unincorporated areas continue to receive 50 percent eligible renewable electricity until 2045 and the remaining customers continue to receive electricity from SCE with the emissions factors and participation rates held constant. GHG emissions in 2019 are calculated using 2018 natural gas and electricity emission factors with 2019 CPA participation rates. GHG emissions between 2020-2045 are calculated using 2020 electricity emission factors.

OFF-ROAD EQUIPMENT

Countywide GHG emissions from off-road equipment used in the manufacturing and construction sector are obtained from CARB's OFFROAD2017 ORION tool.⁶⁰ The tool provides countywide

⁵⁹ UCLA Institute of Environmental Studies, Analysis of Los Angeles County Parcel Assessor's Data. 2018.

⁶⁰ CARB, OFFROAD ORION. 2018. Available at: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

carbon dioxide emissions and annual gasoline and diesel consumption by off-road equipment to 2045. Emission projections for unincorporated Los Angeles County are estimated by scaling Countywide emissions using construction and manufacturing jobs in 2017 for unincorporated Los Angeles County areas.

Data Sources:

- CARB OFFROAD2017 ORION
Link: <https://www.arb.ca.gov/orion/>
- Jobs in Manufacturing and Construction
Link: <https://scag.ca.gov/sites/main/files/file-attachments/losangelescountyp.pdf?16056653130>
- UCLA analysis of County Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies

Energy Industries

Emission projections from energy production at CHP plants, district cooling facilities, biomass power stations, and waste-to-energy facilities, are extrapolated based on 2008 to 2020 GHG emissions reported by the CARB Pollution Mapping Tool and the CARB 2021 MRR Database.⁶¹ For CHP facilities, emissions for Pitchess cogeneration station were assumed to remain constant (the facility was decommissioned in 2018); emissions for Olive View cogeneration station were forecasted using a linear trend in emissions from reported 2012-2020. Waste-to-energy facility biogenic emissions for 2019-2029 were forecasted using a linear trend in emissions reported from 2011-2018 and emission for 2030-2045 were forecasted assuming the Calabasas landfill shuts down and the remaining emissions decline following the trend from 2011 through the forecasting year. Biomass and auxiliary power facility biogenic emissions were forecasted using a linear trend in emissions reported from 2011-2018.

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>

Agriculture, Forestry and Other Fishing Activities

Countywide GHG emissions from agricultural equipment are obtained from CARB's OFFROAD2017 ORION tool. The tool provides countywide carbon dioxide emissions and annual gasoline and diesel consumption by off-road equipment to 2045. Emission projections for unincorporated Los Angeles County are estimated by scaling Countywide emissions using 2016 crop acreage for unincorporated Los Angeles County from USDA's NASS Cropscape database.⁶²

Data Sources:

- CARB OFFROAD2017 ORION
Link: <https://www.arb.ca.gov/orion/>
- USDA NASS Cropscape
Link: <https://nassgeodata.gmu.edu/CropScape/>

⁶¹ CARB, Mandatory GHG Reporting Regulations. April 1, 2019. Available at: <https://ww2.arb.ca.gov/mrr-regulation>. Accessed January 2021.

⁶² NASS, CropScape. 2021. Available at: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

Fugitive Emissions from Oil and Natural Gas Systems

Emissions from extraction, processing, and distribution of crude oil and natural gas, are extrapolated based on 2008 to 2018 GHG emissions reported by the CARB Pollution Mapping Tool.⁶³

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/

Transportation

Table A-10 presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the transportation sector.

Table A-10: Transportation GHG Emissions – 2018 Inventory and BAU Forecasts

| TRANSPORTATION SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Passenger Vehicles | 2,665,824 | 2,738,675 | 2,769,029 | 2,829,737 |
| Buses | 29,371 | 35,589 | 35,676 | 35,852 |
| Railways | 9,490 | 10,255 | 10,389 | 10,658 |
| TOTAL | 2,704,685 | 2,784,518 | 2,815,094 | 2,876,247 |

On-road Transportation: Passenger Vehicles and Trucks

VMT from passenger vehicles and trucks were estimated using SCAG’s 2016 Regional Travel Demand Model, which forecasts VMT for the year 2040. This model is a trip-based travel forecasting model that generates daily vehicle trips for each TAZ across various trip purposes based on inputs such as the transportation network and socioeconomic data such as population, household, and employment. VMT was provided by F&P for years 2016 and 2040 and was linearly interpolated for 2030 and 2035. VMT for years 2041 through 2045 were linearly extrapolated based on the 2016 to 2040 VMT projection.

GHG emissions from unincorporated areas are calculated using VMT and the weighted emission factors for 2018 by vehicle type (passenger vehicles and trucks)⁶⁴ from the EMFAC2021 model (see transportation section of A.1 above for discussion).⁶⁵ The 2018 emission factor was applied to every year from 2018 through 2045 to represent no changes in the vehicle fleet due to federal, state, or local action.

It should be noted that the transportation modeling for the 2045 CAP shows a five percent decrease in transportation emissions between 2015 and 2018. This decrease is due to declining emission factors from the EMFAC2021 model, which outpace the increase in total VMT as

⁶³ CARB, Pollution Mapping Tool. 2018. Available: https://www3.arb.ca.gov/ei/tools/pollution_map/. Accessed January 2021.

⁶⁴ Passenger vehicles correspond to EMFAC categories LDA, LDT1, LDT2, MCY, and MD. Trucks correspond to EMFAC categories LHDT1, LHDT2, MHDT, HHDT, and MH.

⁶⁵ CARB, EMFAC2021 Model. 2021. Available at: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

modeled with SCAG's 2016 Regional Travel Demand Model. The California Department of Tax and Fee Administration reports that statewide taxable sales of gasoline and diesel fuel increased by two percent from 2015 to 2018.⁶⁶ This increase is also consistent with the statewide GHG inventory prepared by CARB, which also shows a two percent increase in total on-road transportation emissions from 2015 to 2018.⁶⁷ Statewide gasoline and diesel fuel sales may not trend precisely with unincorporated Los Angeles County gasoline and diesel fuel sales, and VMT apportioned to unincorporated Los Angeles County areas may not correlate perfectly with gasoline sales, which could explain the difference. In addition, the VMT used in the inventory is based on the SCAG model, not actual reported VMT or fuel sales data, consistent with the GPC Protocol.

Data Sources:

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- SCAG Regional Travel Demand Model
Provided by SCAG
- Fehr & Peers Modeling Analysis (July 29, 2019; December 2021; January 2022; February 2023)

On-road Transportation: Buses

Emissions for 2015 and 2018 were calculated using fuel consumption data from FTA's NTD⁶⁸ and standard emission factors for diesel, gasoline, and compressed natural gas from EMFAC2021.⁶⁹ Emissions from Metro buses are extrapolated from 2018 through 2045 based on Metro's bus miles and ridership statistics between 2010 and 2017.⁷⁰

Data Sources:

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- Metro Bus Ridership
Link: <https://isotp.metro.net/MetroRidership/Index.aspx>
- FTA National Transit Database
Link: <https://www.transit.dot.gov/ntd/ntd-data>

Railways

Emissions by Southern California Regional Rail Authority (SCRRA or Metrolink) are forecasted based on projected weekday ridership until 2025 as documented in Metrolink's 10 Year Strategic Plan. Emissions from 2025 to 2045 are extrapolated based ridership estimates between 2014 and

⁶⁶ California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. 2022. Available at: [California Retail Fuel Outlet Annual Reporting \(CEC-A15\) Results](#). Accessed April 2022.

⁶⁷ California Air Resources Board, Data used to generate figures in the California Greenhouse Gas Emissions for 2000 to 2019- Trends of Emissions and Other Indicators report. Figure 3. 2022. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed April 2022.

⁶⁸ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

⁶⁹ CARB, EMFAC2021 Model. 2021. Available at: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

⁷⁰ Metro, Interactive Estimated Ridership Stats. 2021. Available at: <https://isotp.metro.net/MetroRidership/Index.aspx>. Accessed January 2021.

2025. Emissions from Metro Rail are extrapolated based on Metro rail miles and ridership statistics between 2010 and 2017.⁷¹

Data Sources:

- Metrolink Strategic Plan
Link: https://www.metrolinktrains.com/globalassets/about/metrolink_10-year_strategic_plan_2015-2025.pdf
- Metro Ridership
Link: <http://isotp.metro.net/MetroRidership/Index.aspx>

Waste and Wastewater

BAU emissions are forecasted for years 2018 through 2045 for emissions generated at landfills, biological treatment (composting and anaerobic digestion) and incineration facilities, and wastewater treatment plants are reported under the waste sector. **Table A-11** presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the waste and wastewater sector.

Table A-11: Waste and Wastewater GHG Emissions – 2018 Inventory and BAU Forecast

| WASTE & WASTEWATER SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|-------------------------------------|--|----------------|----------------|----------------|
| | 2018 | 2030 | 2035 | 2045 |
| Solid Waste Disposal | 407,578 | 386,285 | 386,541 | 410,702 |
| Biological Treatment of Solid Waste | 5,309 | 6,180 | 6,184 | 6,579 |
| Waste Incineration* | 547 | 647 | 687 | 711 |
| Wastewater Treatment | 56,495 | 59,454 | 61,372 | 65,208 |
| TOTAL | 469,382 | 451,919 | 454,097 | 482,489 |

NOTE: Totals exclude Waste Incineration which is accounted for under Stationary Energy

Solid Waste Disposal

Emissions from landfills are determined by extrapolating the 2018 GHG emissions intensity (MTCO₂e/person) based on solid waste and organic waste disposal projections from the Public Works SWIMS database⁷² and population projections by SCAG⁷³ and Caltrans.⁷⁴ Solid waste diversion rate and organics diversion rate are assumed to remain constant at 70 percent and 38 percent respectively, as is the future methane capture rates at all landfills.

Data Sources:

- LADPW SWIMS Database
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>
- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>

⁷¹ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

⁷² LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

⁷³ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁷⁴ Caltrans, California County-Level Economic Forecast 2017-2050. September 2017. Available at: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>. Accessed January 2021.

- Caltrans Population Projections
Link: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>

Biological Treatment of Solid Waste

Emissions from composting and anaerobic digestion are estimated by extrapolating the 2018 GHG emissions intensity (MTCO₂e/person) based on solid waste and organic waste disposal projections from Public Works SWIMS database.⁷⁵ Solid waste diversion rate and proportion of organic waste diverted from landfills to composting and grinding/mulching facilities remains constant.

GHG emissions from Anaerobic Digestion at JWPCP are scaled based on population growth from 2018 to 2045. These emission projections are reported under Energy Industries.

Data Sources:

- LADPW SWIMS Database
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>

Waste Incineration

See Energy Industries.

Wastewater Treatment

Emissions from wastewater treatment are determined by extrapolating the 2018 GHG emissions intensity (MTCO₂e/person) based on population projections by SCAG⁷⁶ and Caltrans.⁷⁷

Data Sources:

- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- Caltrans Population Projections
Link: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>

Industrial Processes and Product Use

HFC and PFC emissions from the use of foam, solvents and industrial refrigerants, aerosols, fire retardants and refrigerants in residential and transportation sectors are extrapolated based on population projections by SCAG⁷⁸ and Caltrans.⁷⁹ It is assumed that per capita emissions from products remain constant between 2018 to 2045. **Table A-12** presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the IPPU sector.

⁷⁵ LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

⁷⁶ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁷⁷ Caltrans, California County-Level Economic Forecast 2017-2050. September 2017. Available at: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>. Accessed January 2021.

⁷⁸ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁷⁹ Caltrans, California County-Level Economic Forecast 2017-2050. September 2017. Available at: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>. Accessed January 2021.

Table A-12: IPPU GHG Emissions – 2018 Inventory and BAU Forecast

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------|--|----------------|----------------|----------------|
| | 2018 | 2030 | 2035 | 2045 |
| IPPU | 239,505 | 259,605 | 267,981 | 284,731 |
| TOTAL | 239,505 | 259,605 | 267,981 | 284,731 |

Data Sources:

- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- Caltrans Population Projections
Link: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>

AFOLU

GHG Emissions are assumed to be constant between 2018 to 2045. **Table A-13** presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the AFOLU sector.

Table A-13: AFOLU GHG Emissions – 2018 Inventory and BAU Forecast

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------|--|---------------|---------------|---------------|
| | 2018 | 2030 | 2035 | 2045 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 |
| TOTAL | 60,860 | 60,860 | 60,860 | 60,860 |

Summary Emissions

Table A-14 and **Figure A-8** present GHG emissions for all sectors for the 2018 GHG inventory and the 2030, 2035, and 2045 BAU forecasts.

Table A-14: GHG Emissions by Sector – 2018 Inventory and BAU Forecast

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|-------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Stationary Energy | 1,698,809 | 1,681,160 | 1,721,212 | 1,820,612 |
| Transportation | 2,704,685 | 2,784,518 | 2,815,094 | 2,876,247 |
| Waste | 469,382 | 451,919 | 454,097 | 482,489 |
| IPPU | 239,505 | 259,605 | 267,981 | 284,731 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 |
| TOTAL | 5,173,240 | 5,238,062 | 5,319,243 | 5,524,939 |

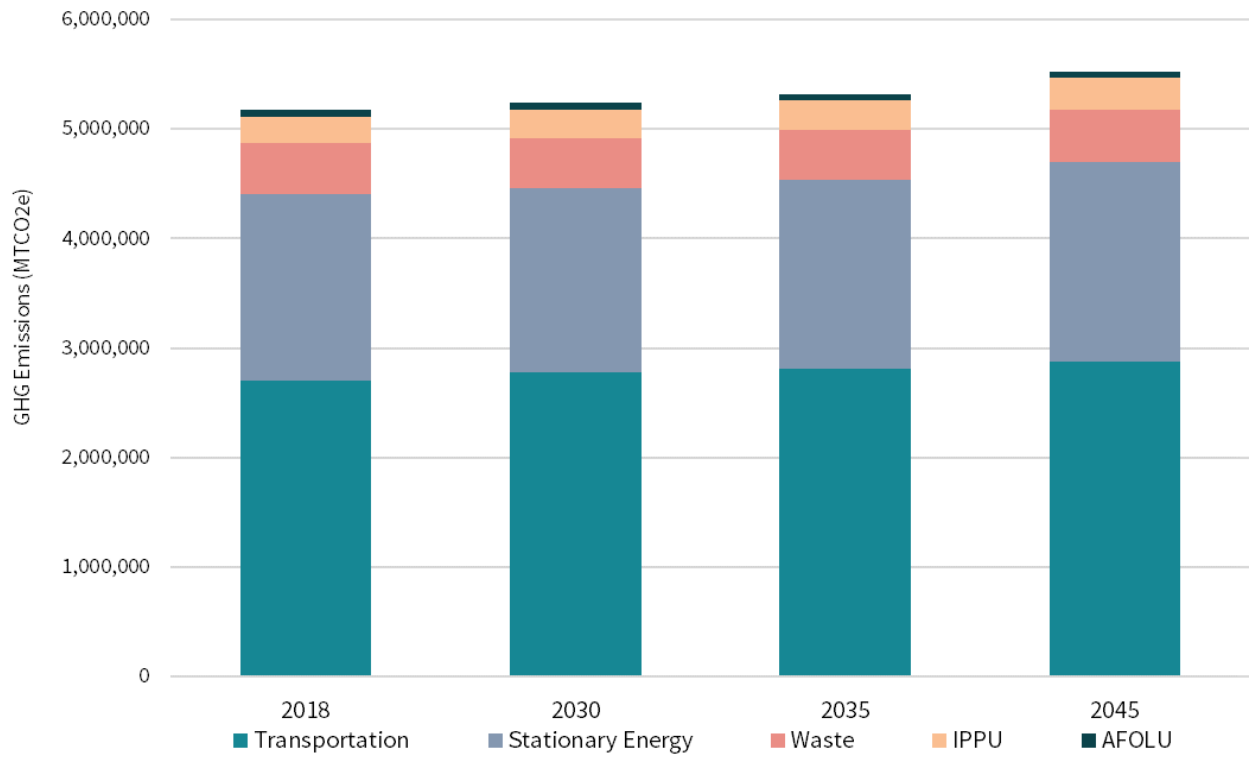


Figure A-8: GHG Emissions by Sector – 2018 Inventory and BAU Forecast

A.4 Derivation of the 2045 CAP's Emission Reduction Targets

Origin of Emission Reduction Targets

The 2045 CAP includes three separate targets and one aspirational goal for three future milestone years:

- By 2030, reduce unincorporated Los Angeles County GHG emissions 40 percent below 2015 baseline levels;
- By 2035, reduce unincorporated Los Angeles County GHG emissions 50 percent below 2015 baseline levels;
- By 2045, reduce unincorporated Los Angeles County GHG emissions 83 percent below 2015 baseline levels; and
- By 2045, achieve carbon neutrality in unincorporated Los Angeles County (long-term aspirational goal).

The 2045 CAP's targets and 2045 aspirational goal are based on the OurCounty Sustainability Plan and CARB's 2022 Scoping Plan. A primary objective of the 2045 CAP is to align with the OurCounty Sustainability Plan targets and state targets. The OurCounty Sustainability Plan conducted a community-wide, Countywide greenhouse gas emissions inventory. That process resulted in individual greenhouse gas inventories for all 88 cities and the unincorporated areas of Los Angeles County. At the time of the OurCounty Plan's preparation, 2015 was the year with the most up-to-date data for all 88 cities and the unincorporated areas, including account-level energy consumption data from the UCLA Energy Atlas. Thus, the OurCounty Plan used 2015 as the baseline year against which to set the Plan's greenhouse gas related targets. During the development of the OurCounty Plan, the County evaluated a series of GHG reduction target options. The targets selected represent the County's commitment to doing its fair share to help California achieve its ambitious statewide GHG targets.

In 2005, Governor Arnold Schwarzenegger's Executive Order (EO) S-3-05 established the 2050 statewide GHG reduction target of 80 percent below 1990 levels, expressing the intent of the State of California to address the issue of climate change by reducing GHGs. Following EO S-3-05, the California legislature passed Assembly Bill 32 (AB 32, Health and Safety Code § 38500, et seq.) in 2006. AB 32 requires the CARB to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). In 2015, Governor Edmund G. Brown, Jr.'s EO B-30-15 established the 2030 statewide GHG reduction target of 40 percent below 1990 levels. In 2016, Senate Bill (SB) 32 and its companion bill AB 197 amended the Health and Safety Code by establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure the benefits of state climate policies accrue to disadvantaged communities. Further, in 2018, Governor Brown signed EO B-55-18, committing California to total, economy-wide carbon neutrality by 2045. In December 2017, CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping

Plan), which outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels as codified by SB 32.⁸⁰

In August 2022, the California Legislature enacted a package of significant climate legislation that included a codification of the state's goal to reach net-zero GHG emissions by 2045. With the passage of AB 1279, California is committed to reach net zero by no later than 2045. Critically, this goal requires California to cut anthropogenic GHG emissions by 85 percent compared to 1990 levels, ensuring that the state uses all available solutions to sharply cut GHG emissions from industrial facilities, vehicles, power plants, and more. Governor Gavin Newsom signed AB 1279 into law on September 16, 2022.

On December 15, 2022, CARB adopted the 2022 Scoping Plan in response to AB 1279 and other legislation.⁸¹ The 2022 Scoping Plan lays out a path to achieve carbon neutrality no later than 2045 and to reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve the following: significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in short-lived climate pollutants; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon.⁸² Appendix D of the 2022 Scoping Plan includes recommendations for local government actions to align with the state's climate goals, focusing on local GHG emissions reduction strategies.⁸³ According to CARB, "local government actions are crucial for supporting attainment of the state's climate goals" and local government leadership is "critical to implementing State-level measures to address GHG emissions associated with transportation and the built environment."

Table A-15 outlines the state's GHG reduction targets.

The 2045 CAP retains OurCounty's target for 2035 and identifies OurCounty's 2045 carbon neutrality target as a long-term aspirational goal. The 2045 CAP adds a new GHG emission reduction target for 2030 to align with SB 32.⁸⁴ The Draft 2045 CAP's 2030 target was selected based on guidance provided in the 2017 Scoping Plan and was developed to demonstrate consistency with the statewide 2030 target shown in Table A-15, above. The Draft 2045 CAP's 2030 target is established based on a reduction from 2015 baseline levels (just like the OurCounty targets for 2025 and 2035) and is equal to 40 percent below 2015 emissions or 4.9 million MTCO₂e. This compares to unincorporated Los Angeles County's 2030 BAU forecast of 5.2 million MTCO₂e, as presented in Table A-14 above. A 40 percent reduction below 2015 levels

⁸⁰ California Air Resources Board, *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November 2017. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents>. Accessed January 2022.

⁸¹ California Air Resources Board, *Resolution 22-21: 2022 Climate Change Scoping Plan for Achieving Carbon Neutrality*. Agenda Item No. 22-16-1. December 15, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/barcu/board/res/2022/res22-21.pdf>. Accessed December 2022.

⁸² California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed December 2022.

⁸³ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D Local Actions*. November 16, 2022. Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed December 2022.

⁸⁴ The 2045 CAP excludes OurCounty's 2025 target because implementation of the CAP will barely be underway by 2025. Instead, the 2045 CAP focuses on the closest reasonable target timeframes of 2030 and 2035, and also to align with state planning for 2030 (SB 32 does not stipulate an interim target for 2025).

is also equivalent to a 48 percent reduction below unincorporated Los Angeles County’s 1990 GHG emissions levels, which is more stringent than the state target of a 40 percent reduction below 1990 levels by 2030 (for additional discussion, see section below).

Table A-15: State of California Greenhouse Gas Emission Reduction Targets

| TARGET YEAR | STATE GHG TARGET | CORRESPONDING STATE LEGISLATION |
|-------------|---|---|
| 2020 | 1990 levels | Assembly Bill 32, the California Global Warming Solutions Act (2006) |
| 2030 | 40% below 1990 levels | Senate Bill 32, the Global Warming Solutions Act (2006) |
| 2045 | 85% below 1990 levels and net zero GHG emissions ^a | Assembly Bill 1279, the California Climate Crisis Act (2022) ^b |

NOTES:

^a. Net zero means that emissions of GHGs to the atmosphere are balanced by removals of greenhouse gases (GHGs) over a period of time, as determined by the California Air Resources Board. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is removed from the atmosphere, both in natural sinks (such as trees) and through mechanical sequestration (such as direct air capture), over the same time period.

^b. Executive Order S-3-05 (2005) set a target of 80% below 1990 levels, which was superseded by Assembly Bill 1279.

The Draft 2045 CAP’s 2035 target was selected based on guidance provided in both the 2017 Scoping Plan and the 2022 Scoping Plan and was chosen as a milestone target to put unincorporated Los Angeles County on the trend to achieve the 2045 CAP’s 2045 target and the long-term aspirational goal of carbon neutrality by 2045. This 2035 target was developed to demonstrate consistency with the pathway needed to achieve the statewide 2045 targets shown in Table 2-4, above. The Draft 2045 CAP’s 2035 target is established based on a reduction from 2015 baseline levels and is equal to 50 percent below 2015 emissions (2.8 million MTCO₂e). This compares to unincorporated Los Angeles County’s 2035 BAU forecast of 5.3 million MTCO₂e. A 50 percent reduction below 2015 levels is also equivalent to a 57 percent reduction below unincorporated Los Angeles County’s 1990 GHG emissions levels.

The Draft 2045 CAP’s target for 2045 was selected based on guidance for CAP targets provided in the 2022 Scoping Plan and was developed to demonstrate consistency with the statewide 2045 target shown in Table A-15, above. It is based on a reduction from 2015 baseline levels and is equal to 83 percent below 2015 emissions (958,000 MTCO₂e). This compares to unincorporated Los Angeles County’s 2045 BAU forecast of 5.5 million MTCO₂e. An 83 percent reduction below 2015 levels is also equivalent to an 85 percent reduction below unincorporated Los Angeles County’s 1990 GHG emissions levels, which in turn is equivalent to the state target of an 85 percent reduction below 1990 levels by 2045. **Table A-16** presents a comparison between the 2045 CAP’s targets for 2030 and 2035, along with its aspirational 2045 goal, and the OurCounty Sustainability Plan targets for each future milestone year.

Table A-16: GHG Emissions Targets and Goals for the Draft 2045 Cap and OurCounty Sustainability Plan

| YEAR | 2045 CAP (UNINCORPORATED COUNTY ONLY) | OURCOUNTY SUSTAINABILITY PLAN (UNINCORPORATED COUNTY AND CITIES) | GHG EMISSIONS (MTCO ₂ E) (UNINCORPORATED COUNTY) |
|------|---|--|---|
| 2025 | n/a | 25% below 2015 baseline levels | 4,148,366 |
| 2030 | 40% below 2015 levels | n/a | 3,318,693 |
| 2035 | 50% below 2015 levels | 50% below 2015 levels | 2,765,578 |
| 2045 | 83% below 2015 levels (85% below 1990 levels) Carbon neutrality ^a | Carbon neutrality by 2045 for county operations (by 2050 countywide) | 958,088 |

NOTE:

^a The Draft 2045 CAP includes an aspirational goal, rather than a target, of carbon neutrality by 2045.

The Targets as Levels of Significance for GHG Impacts under CEQA

CEQA Guidelines Section 15183.5(b) stipulates that project-specific environmental documents can find that project-level GHG emissions are not cumulatively considerable if the project complies with the requirements of a qualified GHG emissions reduction plan. As discussed in the Draft Environmental Impact Report for the 2045 CAP, upon certification of the EIR and approval of the 2045 CAP, the 2045 CAP would meet the requirements of a qualified GHG emission reduction plan per CEQA Guidelines Section 15183.5(b)(1) for projects through 2035.

To meet the requirements of CEQA Guidelines Section 15183.5(b), a qualified GHG emissions reduction plan must include several important elements, and must:

- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable (§ 15183.5(b)(1)(B)).

The Draft 2045 CAP identifies a GHG emissions reductions target for the year 2030 that is 40 percent below baseline 2015 levels, which is equivalent to 47 percent below 1990 levels. This 2030 target for unincorporated Los Angeles County is therefore more stringent than the statewide target of 40 percent below 1990 levels by 2030 pursuant to SB 32. The Draft 2045 CAP’s 2035 target of 50 percent below 2015 levels puts unincorporated Los Angeles County on a pathway to achieve the Draft CAP’s 2045 target and the statewide 2045 target in AB 1279. The Draft 2045 CAP’s 2045 target of 83 percent below 2015 levels is equivalent to an 85 percent reduction below 1990 levels, which aligns with the State of California’s target of 85 percent below 1990 levels. The 2045 CAP’s long-term aspirational goal of carbon neutrality by 2045 is also consistent with AB 1279 and the 2035 target puts unincorporated Los Angeles County on a path to achieve carbon neutrality.

Consistency with State Target as a Threshold of Significance

While several state-level initiatives will help reduce GHG emissions, they alone will not be sufficient to meet the 2030 target mandated by SB 32. This is one of the many reasons why the

County has prepared the 2045 CAP: so it can contribute its fair share of emission reductions to achieve the statewide targets for 2030 and beyond.

Consistency with the CARB 2022 Scoping Plan and the state’s statutory GHG emissions reduction targets is an appropriate metric by which to determine the significance of the Draft 2045 CAP’s GHG emissions. CEQA Guidelines Section 15064.4(b)(3) states that a lead agency “may consider a project’s consistency with the state’s long-term climate goals or strategies” when determining the significance of a project’s impacts. Additionally, in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204 (Newhall), the California Supreme Court sanctioned the use of such a threshold: The Court stated that assessing a project’s GHG impacts based on a “consistency with a GHG emission reduction plan” threshold of significance is legally permissible under CEQA.

The 2030 unincorporated Los Angeles County target above is derived using the 2017 Scoping Plan’s recommendations for local land use development to contribute their “fair share” of emission reductions to the statewide GHG target for 2030. This is also consistent with the Association of Environmental Professionals (AEP) 2016 white paper recommendation for “Substantial Progress” thresholds for land use development to show consistency with statewide targets.⁸⁵ As discussed above, the Draft 2045 CAP’s 2030 target of 40 percent below 2015 levels (a gross emissions target) exceeds the statewide 2030 target as codified in SB 32 and the 2017 Scoping Plan. Unincorporated Los Angeles County’s emissions in 2015 are estimated to be 12 percent lower than 1990 emissions;⁸⁶ this compares to statewide emissions that were 2.3 percent higher in 2015 compared to 1990.⁸⁷ Additionally, unincorporated Los Angeles County’s emissions in 2018 are estimated to be 20 percent lower than 1990 emissions; this compares to statewide emissions that were 1.3 percent lower in 2018 compared to 1990.⁸⁸ In other words, unincorporated Los Angeles County has been more successful than the state as a whole in reducing gross emissions since 1990. Consequently, the Draft 2045 CAP’s gross emissions target is *more* stringent than the corresponding state target when comparing to 1990 levels and approximately equivalent when using a per-capita metric.⁸⁹ The Draft 2045 CAP’s 2030 target also sets unincorporated Los Angeles County on a path to achieve California’s 2045 GHG emission reduction target in AB 1279.

The Draft 2045 CAP’s 2045 target of 83 percent below 2015 levels aligns with the statewide 2045 target, as codified in AB 1279 and implemented in the 2022 Scoping Plan. This is because the County’s 2045 target of 85 percent below 2015 levels is equivalent to an 85 percent reduction below 1990 levels, which aligns with the State of California’s target of 85 percent below 1990

⁸⁵ Association of Environmental Professionals (AEP). 2016, *Final White Paper - Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18. Available at: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf. Accessed December 2021.

⁸⁶ To demonstrate consistency with statewide targets, to assess unincorporated Los Angeles County’s progress since 1990, and to ensure that interim emissions reduction targets align with commitments prior to 2015, a backcasting model was developed (see section A.2 of this appendix).

⁸⁷ California Air Resources Board, *California’s Greenhouse Gas Inventory by Scoping Plan Category*, Fourteenth Edition: 2000 to 2019, Last updated on 6/1/2021. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed January 2022.

⁸⁸ *Ibid.*

⁸⁹ Per-capita emissions for unincorporated Los Angeles County are 19 percent lower in 2015 (6.1 MTCO₂e/capita) compared to 1990 (7.6 MTCO₂e/capita) and 28 percent lower in 2018 (5.4 MTCO₂e/capita) compared to 1990. This compares to total statewide per-capita emissions that were 22 percent lower in 2015 (11.3 MTCO₂e/capita) compared to 1990 (14.5 MTCO₂e/capita) and 26 percent lower in 2018 (10.8 MTCO₂e/capita) compared to 1990. The 2030 statewide target of 6.2 MTCO₂e/capita is 57 percent below 1990 statewide levels, whereas the 2045 CAP’s 2030 target of 3.3 MTCO₂e/capita is 56 percent below 1990 unincorporated Los Angeles County levels.

levels. Consequently, the Draft 2045 CAP's target is equivalent to the state target. The Draft 2045 CAP's 2045 target also sets unincorporated Los Angeles County on a trend to achieve California's 2045 carbon neutrality target. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2045 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2045.

The Draft 2045 CAP's 2035 target of 50 percent below 2015 levels puts unincorporated Los Angeles County on a pathway to achieve the statewide 2045 targets as stipulated in AB 1279. Although the state does not have a target for 2035, the 2045 CAP's target for 2035 of 50 percent below 2015 levels is equivalent to a 57 percent reduction below 1990 levels, which puts unincorporated Los Angeles County on a path to achieve its 2045 targets. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2035 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2035.

The Draft 2045 CAP's 2045 aspirational goal of carbon neutrality aligns with the statewide 2045 target of carbon neutrality stipulated in AB 1279.

GHG emissions and global climate change represent cumulative impacts of human activities and development projects locally, regionally, statewide, nationally, and worldwide. GHG emissions from all these sources cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects around the world have contributed and will continue to contribute to global climate change and its associated environmental impacts. Given that analysis of GHG emissions is cumulative in context, the emissions targets discussed above represent the level by which the 2045 CAP's emissions are not cumulatively considerable.

A.5 Attachment A: Fehr & Peers Modeling Analysis

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APPENDIX B

Emissions Forecasting and Reduction Methods

Purpose

This appendix describes the greenhouse gas (GHG) accounting and projection methods for the Adjusted Business-as-Usual (BAU) forecasts for 2030, 2035, and 2045, and the methods for quantifying GHG emissions reductions for the measures and actions listed in the *2045 Los Angeles County Climate Action Plan (2045 CAP)*.

Section B.1: 2018–2045 Adjusted Business-as-Usual Forecasts

This section describes the approach for modeling an Adjusted BAU scenario that projects future emissions based on current population and regional growth trends; land use growth patterns; and implementation of federal, state, and County of Los Angeles (County) regulations and policies, including renewable-energy targets pursuant to the California Renewables Portfolio Standard (RPS) and Senate Bill (SB) 100, Title 24 Building Energy Efficiency updates, and the Advanced Clean Cars regulations and Pavley vehicle efficiency standards.

Section B.2: Greenhouse Gas Reduction Measures and Actions

This section describes the calculation methods for estimating local GHG emissions reductions for the 2045 CAP measures and actions. These emissions reductions occur beyond federal, state, and County regulations and policies accounted for in the Adjusted BAU forecast. The quantified measures and actions include:

- ES1: Develop a Sunset Strategy for All Oil and Gas Operations
- ES2: Procure Zero-Carbon Electricity
- ES3: Increase Renewable Energy Production
- E1: Decarbonize Existing Buildings
- E2: Decarbonize New Development

- E4: Improve Energy Efficiency of Existing Buildings
- E6: Reduce Indoor and Outdoor Water Consumption
- T1: Increase Density Near High-Quality Transit Areas
- T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use
- T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips
- T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation
- T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales
- T7: Electrify County Fleet Vehicles
- T8: Accelerate Freight Decarbonization
- T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment
- W1: Institutionalize Sustainable Waste Systems and Practices
- A1: Conserve Agricultural and Working Lands, Forest Lands, and Wildlands
- A3: Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces

B.1 2018–2045 Adjusted Business-as-Usual Forecasts

Like the standard BAU forecast, the Adjusted BAU forecast provides an estimate of future emissions levels based on the continuation of existing trends in demographic growth (such as population and housing), activity or resource consumption (such as electricity use), technology changes, and regulation. Unlike the BAU forecast, the Adjusted BAU forecast accounts for expected outcomes of federal, state, and local measures. Specifically, the Adjusted BAU forecast includes the following programs and policies:

1. California's RPS program and SB 100 targets for renewable energy.
2. Updates to Title 24 standards.
3. Implementation of the Advanced Clean Cars regulations and Pavley standards.

These three adjustments are explained in the following sections.

Renewables Portfolio Standard and Senate Bill 100

The Clean Energy and Pollution Reduction Act of 2015, or SB 350 (Chapter 547, Statutes of 2015) was approved by then-Governor Jerry Brown on October 7, 2015. SB 350 increased the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased from 33 percent to 50 percent by December 31, 2030. On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the RPS goals that were established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. The updated RPS goals are considered achievable, because many California energy providers are already meeting or exceeding the RPS goals established by SB 350. The Adjusted BAU forecasts accounts for these renewable energy targets, as discussed below.

Electricity Emission Factors under the Renewables Portfolio Standard

To account for California’s RPS targets under SB 100 in the Adjusted BAU forecast, the GHG emission factors for electricity consumption were adjusted. These emissions factors represent indirect GHG emissions generated at power plants and are applied to electricity consumption in unincorporated Los Angeles County (see Appendix A for discussion). The RPS has the effect of lowering indirect emissions associated with electricity consumption because it mandates increasing percentages of renewable sources of power supplied by electricity utilities in future years. The RPS requires 60 percent eligible renewables by 2030 and 100 percent RPS-eligible renewable resources by 2045.¹

The two utilities supplying electricity to unincorporated Los Angeles County are Southern California Edison (SCE) and the Clean Power Alliance (CPA). To adjust for the RPS in future years, indirect electricity emission factors reported by SCE and CPA along with the energy power mix were collected for the years 2015–2020. SCE reports its emission factors in their annual sustainability reports and has values for 2015–2019. CPA reports its emission factors to the Climate Registry and has values for 2018–2020. The California Energy Commission (CEC) reports power mix data in Power Content Labels; these are available through 2020 for both SCE and CPA.²

Based on data reported for 2016–2020, a composite “non-RPS” emission intensity factor was generated for each year. This factor is calculated based on the reported total emission factor and the non-RPS power mix. For example, SCE’s total reported emission factor in 2019 is 396.8 pounds (lb) of carbon dioxide equivalent (CO₂e) per megawatt-hour (MWh) for a non-RPS power mix of 65 percent; the “non-RPS” emission intensity factor is therefore 612.4 lb CO₂e/MWh. Then, for each forecast year (2030, 2035, and 2045), an emission factor for total delivered electricity was calculated based on these composite “non-RPS” emission intensity factors for each reported year and the projected RPS requirement for eligible renewables for each year. For example, a 60 percent eligible renewable mix (required by 2030) applied to the “non-RPS” emission intensity factor of 612.4 lb CO₂e/MWh results in a total emission factor of 245 lb CO₂e/MWh.

Table B-1 presents the electricity power mix values reported (2016–2020) and forecasted (2030, 2035, 2045) for SCE and CPA, incorporating the RPS. **Table B-2** presents the electricity emission factors reported for SCE and CPA for 2016–2020 along with the Adjusted BAU forecast for 2030, 2035, and 2045, incorporating the RPS.

¹ RPS-eligible resources include solar, wind, geothermal, small hydroelectric, or biopower facilities that are located within the Western Electricity Coordinating Council (WECC) region, which encompasses 14 Western U.S. states and portions of Canada and Mexico. The majority of RPS-eligible electricity currently comes from solar and wind. Large hydroelectric dams and nuclear facilities, two major sources of carbon-free power, are not RPS-eligible.

² California Energy Commission. 2019. 2018 Power Content Label. July 2019. Available: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Southern_California_Edison.pdf. Accessed January 2021.

Table B-1: SCE and CPA Electricity Power Mix

| ELECTRICITY POWER MIX | REPORTED | | | | | FORECASTED | | |
|---------------------------|----------|------|------|------|------|------------|------|------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2030 | 2035 | 2045 |
| SCE | | | | | | | | |
| Eligible Renewables | 28% | 32% | 36% | 35% | n/a | 60% | 73% | 100% |
| Nuclear & Hydroelectric | 25% | 28% | 21% | 24% | n/a | n/a | n/a | n/a |
| Natural Gas & Unspecified | 60% | 54% | 54% | 49% | n/a | n/a | n/a | n/a |
| CPA Lean Rate | | | | | | | | |
| Eligible Renewables | n/a | n/a | 65% | 36% | 41% | 60% | 73% | 100% |
| Nuclear & Hydroelectric | n/a | n/a | 24% | 1% | 5% | n/a | n/a | n/a |
| Natural Gas & Unspecified | n/a | n/a | 11% | 63% | 55% | n/a | n/a | n/a |
| CPA Clean Rate | | | | | | | | |
| Eligible Renewables | n/a | n/a | 61% | 51% | 50% | 60% | 73% | 100% |
| Nuclear & Hydroelectric | n/a | n/a | 26% | 14% | 9% | n/a | n/a | n/a |
| Natural Gas & Unspecified | n/a | n/a | 13% | 36% | 41% | n/a | n/a | n/a |

NOTES:
 Abbreviations: CPA = Clean Power Alliance; n/a = data not available or not applicable; SCE = Southern California Edison.
 Reported values are shown for 2016–2020. Estimated (forecasted) values based on Renewables Portfolio Standard are shown for 2030, 2035, and 2045.

Table B-2: SCE and CPA Electricity Emission Factors under The Renewables Portfolio Standard

| UTILITY AND CATEGORY OF ELECTRICITY SUPPLY | EMISSION FACTORS (LB CO ₂ E/MWH) | | | | | | | |
|--|---|-------|-------|-------|--------|-------|-------|------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2030 | 2035 | 2045 |
| SCE | | | | | | | | |
| Non-RPS Electricity | 734.7 | 807.4 | 801.6 | 606.5 | n/a | 738.6 | 738.6 | n/a |
| Total Delivered Electricity | 529 | 549 | 513.0 | 393.0 | n/a | 295.5 | 197.0 | 0.0 |
| CPA Lean | | | | | | | | |
| Non-RPS Electricity | n/a | n/a | 30.3 | 590.0 | 1029.6 | 809.8 | 809.8 | n/a |
| Total Delivered Electricity | n/a | n/a | 10.6 | 377.6 | 608.5 | 323.9 | 215.9 | 0.0 |
| CPA Clean | | | | | | | | |
| Non-RPS Electricity | n/a | n/a | 25.1 | 342.2 | 685.7 | 513.9 | 513.9 | n/a |
| Total Delivered Electricity | n/a | n/a | 9.8 | 169.4 | 342.2 | 205.6 | 137.0 | 0.0 |

NOTES:
 Abbreviations: CO₂e = carbon dioxide equivalent; lb = pounds; MWh = megawatt-hour; n/a = data not available or not applicable.
 Reported values are shown for 2016–2020. Estimated (forecasted) values based on RPS are shown for 2030, 2035, and 2045.

Data Sources:

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtq4\)\)/frmLLogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtq4))/frmLLogin.aspx)
- Power Content Labels
Link: <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label>
- California RPS Program Overview
Link: https://www.cpuc.ca.gov/RPS_Overview/
- SB 100
Link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

Residential Buildings

Like the BAU Forecast, energy consumption in residential buildings is projected based on building footprint projections for residential stock in unincorporated Los Angeles County (see Appendix A). As discussed above, the electricity emission factors for electricity supplied by SCE are based on SCE’s historical power mix (2015–2019) and RPS targets.³ To account for the RPS and SB 100, SCE emission factors were applied to total residential electricity consumption for 2018, 2030, 2035, and 2045. As reported in Table B-2 above, SCE emission factors were estimated to be 513 lb CO₂e/MWh in 2018, 295.5 lb CO₂e/MWh in 2030, 197 lb CO₂e/MWh in 2035, and 0 lb CO₂e/MWh in 2045.

Beginning in 2019, residential customers in unincorporated Los Angeles County were automatically enrolled in the Clean Power Alliance’s (CPA) “Clean” electricity rate option. While participation data for 2019 were unavailable when the 2018 inventory was developed, a July 2021 member status report indicated a 96 percent participation rate for all residential customers in unincorporated Los Angeles County in 2021.⁴ Under the Clean rate option in 2019, residential customers received 61 percent of their electricity from eligible renewable sources via the CPA, 26 percent from carbon-free sources like hydropower, and 13 percent from unspecified fossil-fuel sources like natural gas and coal (see Table B-1 above). The remaining 4 percent of residential customers were enrolled in CPA’s “Lean” electricity rate option. Under the Lean rate option in 2019, residential customers received 65 percent of their electricity from eligible renewable sources via the CPA, 24 percent from carbon-free sources like hydropower, and 11 percent from unspecified fossil-fuel sources like natural gas and coal (see Table B-1 above).

GHG emissions from CPA-provided electricity are calculated using CPA data including electricity consumption, emission factors, and power mix.⁵ As reported in Table B-2 above, CPA’s Lean emission rates are estimated to be 10.6 lb CO₂e/MWh in 2018, 323.9 lb CO₂e/MWh in 2030, 215.9 lb CO₂e/MWh in 2035, and 0 lb CO₂e/MWh in 2045.⁶ CPA’s Clean emission rates are estimated to be 9.8 lb CO₂e/MWh in 2018, 205.6 lb CO₂e/MWh in 2030, 137 lb CO₂e/MWh in 2035, and 0 lb

³ California Energy Commission. 2019. 2018 Power Content Label. July 2019. Available: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Southern_California_Edison.pdf. Accessed January 2021.

⁴ Clean Power Alliance. 2021. *Member Status Report: Los Angeles County*. July 28, 2021.

⁵ California Energy Commission. 2019. 2018 CPA Power Content Label. July 2019. Available: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Clean_Power_Alliance.pdf. Accessed January 2021.

⁶ The Climate Registry. 2020. Utility-Specific Emission Factors. Available: <https://www.theclimateregistry.org/our-members/cris-public-reports/>. Accessed January 2021.

CO₂e/MWh in 2045.⁷ CPA emission factors were applied to total residential electricity consumption in 2018, 2030, 2035, and 2045 and emissions for interim years were linearly interpolated.

For emissions associated with natural gas consumption, emission factors are held constant from 2018.⁸ RPS and SB 100 do not affect natural gas usage or emissions, and there are no federal, state, or local policies that would result in changes to the natural gas emission factors in the Adjusted BAU forecast.

Data Sources:

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- Power Content Labels
Link: <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label>
- California RPS Program Overview
Link: https://www.cpuc.ca.gov/RPS_Overview/
- SB 100
Link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

Commercial and Institutional Buildings

Like the BAU Forecast, energy consumption in commercial, institutional, and agricultural buildings is forecasted based on building footprint projections for nonresidential building stock in unincorporated Los Angeles County (see Appendix A). In June 2018, nonresidential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power option, with less than 5 percent of customers opting out; the year-end CPA participation rate is held constant with the remaining customers continuing to receive electricity from SCE. The emission factors for CPA are based on historical power mix (2018–2020) and California's RPS targets, as discussed above and presented in Table B-1.⁹ Emission factors for SCE and CPA are described under *Electricity Emission Factors under the Renewables Portfolio Standard*, above. Natural gas emission factors are held constant from 2018.

Data Sources:

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- Power Content Labels
Link: <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label>
- California RPS Program Overview
Link: https://www.cpuc.ca.gov/RPS_Overview/
- SB 100
Link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

⁷ The Climate Registry. 2020. Utility-Specific Emission Factors. Available: <https://www.theclimateregistry.org/our-members/cris-public-reports/>. Accessed January 2021.

⁸ The Climate Registry. 2018. Default Emission Factors. May 1, 2018. Available: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climateregistry-2018-Default-Emission-Factor-Document.pdf>. Accessed January 2021.

⁹ California Public Utilities Commission. 2018. Renewables Portfolio Standards (RPS). Available: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-program-overview>. Accessed January 2021.

Manufacturing and Industrial Buildings

ELECTRICITY AND NATURAL GAS

Like the BAU Forecast, energy consumption in manufacturing and industrial buildings are forecasted based on building footprint projections for nonresidential stock in unincorporated Los Angeles County (see Appendix A).¹⁰ As discussed above, beginning in 2018, nonresidential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power rate option (50 percent eligible renewable), with less than 5 percent of customers opting out; the year-end CPA participation rate is held constant with the remaining customers continuing to receive electricity from SCE. The emission factors for CPA are based on historical power mix (2018–2020) and California's RPS targets, as discussed above and presented in Table B-1.¹¹ Emission factors for SCE and CPA are the same as described under *Electricity Emission Factors under the Renewables Portfolio Standard*, above.

California Building and Energy Efficiency Standards (Title 24)

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods (CEC, 2016). The current Title 24, Part 6 standards (2019 standards) were made effective on January 1, 2020. The new Title 24, Part 6 standards (2022 standards) were adopted by the CEC in August 2021 and will be made effective on January 1, 2023. The Adjusted BAU forecasts accounts for these updates to Title 24, as discussed below.

Residential Buildings

Under the Adjusted BAU scenario, energy use in residential buildings was adjusted to reflect the effects of Title 24 standards. Title 24 Building Efficiency Standards are updated every three years by the California Energy Commission. The model uses approximate increased energy efficiency percentages for the 2019 Title 24 standards¹² implemented in 2020, and the 2022 standards to be implemented in 2023.¹³ The 2019 percentages are based on CEC estimates for residential and nonresidential buildings and assume that the solar photovoltaic (PV) requirement is met. The 2022 percentages were calculated based on CEC's draft environmental impact report for the

¹⁰ UCLA Institute of Environmental Studies. 2018. Analysis of County of Los Angeles Parcel Assessor's Data.

¹¹ California Public Utilities Commission. 2018. Renewables Portfolio Standards (RPS). Available: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-program-overview>. Accessed January 2021.

¹² California Energy Commission. 2020. 2019 Building Energy Efficiency Standards FAQ. Available: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed December 2021.

¹³ California Energy Commission. 2021. 2022 Building Energy Efficiency Standards Summary. Available: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf. Accessed December 2021.

2022 standards.¹⁴ This document outlined the changes in building energy use from the 2019 to 2022 standards on a project-by-project basis. Weighted averages were taken to generate efficiency change values for single-family and multifamily residential buildings for both electricity and natural gas. These efficiency changes are applied to 2019 energy use intensity (EUI) values to generate 2022 EUI values for each building type, which are then applied to the square footage of new construction. In the model, the adjusted EUI is also applied to 15 percent of the total square footage of existing buildings to account for the approximately 15 percent of buildings that are retrofitted each year. Because Title 24 is updated on a three-year cycle, the 2022 changes in energy efficiency are applied every three years in the model.

Data Sources:

- Title 24 2019 Update
Link: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
- Title 24 2022 Update
Link: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf
- Title 24 2022 Environmental Impact Report
Link: <https://www.energy.ca.gov/publications/2021/environmental-impact-report-amendments-building-efficiency-standards-2022-energy>

Commercial and Institutional Buildings

Under the Adjusted BAU scenario, energy use in commercial, institutional, and agricultural buildings was adjusted to reflect the effects of Title 24 standards. The methods for adjusting energy use under new Title 24 standards are the same as described for *Residential Buildings*, above.

Data Sources:

- Title 24 2019 Update
Link: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
- Title 24 2022 Update
Link: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf
- Title 24 2022 Environmental Impact Report
Link: <https://files.ceqanet.opr.ca.gov/268487-2/attachment/MNZKECIHPRRVXPxfeMxJjloL-VXe6AFxDecdnxi8c5vzAkZWPPhj5GPnAarnDp4zd7reUQfLY0fv2AI70>

Manufacturing and Industrial Buildings

Under the Adjusted BAU scenario, energy use in manufacturing and construction buildings was adjusted to reflect the effects of Title 24 standards. The methods for adjusting energy use under new Title 24 standards are the same as described for *Residential Buildings*, above. Title 24 Building Efficiency Standards are updated every three years by the California Energy Commission.

¹⁴ California Energy Commission. 2021. Draft Environmental Impact Report: Amendments to the Building Energy Efficiency Standards (2022 Energy Code). Available: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>. Accessed December 2021.

Data Sources:

- Title 24 2019 Update
Link: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
- Title 24 2022 Update
Link: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf
- Title 24 2022 Environmental Impact Report
Link: <https://files.ceqanet.opr.ca.gov/268487-2/attachment/MNZKECIHPRRVXPxfeMxJjIoL-VXe6AFxDecdnxi8c5vzAkZWPhhj5GPnAarnDp4zd7reUQfLY0fV2AI70>

Advanced Clean Cars Regulations and Pavley Vehicle Efficiency Standards

In 2002, Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 requires that the California Air Resources Board (CARB) develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.” To meet the requirements of AB 1493, in 2004 CARB approved amendments to the California Code of Regulations, adding GHG emissions standards to California’s existing standards for motor vehicle emissions. All mobile sources are required to comply with these regulations as they are phased in from 2009 through 2016. These regulations are known as the “Pavley standards” (named for the bill’s author, State Senator Fran Pavley).

In January 2012, pursuant to Recommended Measures T-1 and T-4 of the Original Scoping Plan, CARB approved the Advanced Clean Cars Program, an emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions. The program also requires car manufacturers to offer for sale an increasing number of zero-emission vehicles (ZEVs) each year, including battery electric, fuel cell, and plug-in hybrid electric vehicles. In December 2012, CARB adopted regulations allowing car manufacturers to comply with California’s GHG emissions requirements for model years 2017–2025 through compliance with the EPA GHG requirements for those same model years.¹⁵

The Adjusted BAU forecasts accounts for these vehicle fleet efficiency standards, as discussed below.

On-road Transportation: Passenger Vehicles and Trucks

Like the BAU forecast, vehicle miles traveled (VMT) from passenger vehicles and trucks were estimated using SCAG’s 2016 Regional Travel Demand Model, which forecasts VMT for the year 2040 (see Appendix A). GHG emissions under the Advanced Clean Cars regulations and Pavley standards in unincorporated Los Angeles County are calculated using VMT and corresponding weighted emission factors by vehicle type (passenger vehicles and trucks)¹⁶ for years 2018, 2030,

¹⁵ Advanced Clean Cars Program information available online: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>. Accessed on February 7, 2020.

¹⁶ Passenger vehicles correspond to EMFAC categories LDA, LDT1, LDT2, MCY, and MD. Trucks correspond to EMFAC categories LHDT1, LHDT2, MHDT, HHDT, and MH.

2035, and 2045 from the EMFAC2021 model.¹⁷ Interim year emissions were interpolated for 2019 through 2029, 2031 through 2034, and 2036 through 2044.

Data Sources:

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- SCAG Regional Travel Demand Model
Provided by SCAG

On-road Transportation: Buses

Fuel consumption from Metro buses for years 2019 through 2045 was calculated using fuel consumption and VMT data from the EMFAC2021 model. The EMFAC2021 model was run for years 2018, 2030, 2035, and 2045 and the fuel efficiency (miles per gallon, miles per gallon equivalent, or kWh/mile) were calculated.¹⁸ An efficiency factor for diesel, gasoline, compressed natural gas, and electricity was then developed by dividing the 2030, 2035, and 2045 fuel efficiency by the baseline fuel efficiency in 2018. The efficiency factor was then applied to the 2018 fuel consumption by fuel type to determine the project fuel consumption for years 2030, 2035, and 2045. Emission factors for gasoline, diesel and compressed natural (CNG) gas-powered buses are taken from EMFAC2021 database to calculate GHG emissions. Electricity emissions were calculated using CPA Clean option emission factors for the corresponding year. Emissions for interim years were interpolated for years 2019 through 2030, 2031 through 2034, and 2036 through 2044.

Data Sources:

- Metro Bus Ridership
Link: <https://isotp.metro.net/MetroRidership/Index.aspx>
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

Adjusted BAU Forecast Results

Table B-3 presents emissions for 2018 along with the Adjusted BAU forecast for 2030, 2035, and 2045 for the Stationary Energy sector.

¹⁷ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

¹⁸ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Table B-3: Stationary Energy GHG Emissions – 2018 Inventory and Adjusted BAU Forecasts

| STATIONARY ENERGY SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|---|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Residential Buildings | 962,743 | 825,053 | 755,555 | 617,836 |
| Commercial, Institutional, and Agricultural Buildings | 349,373 | 344,421 | 291,764 | 185,682 |
| Manufacturing and Construction Buildings | 244,417 | 251,607 | 212,726 | 133,633 |
| Energy Industries | 98,554 | 29,495 | 29,526 | 29,587 |
| Fugitive Emissions from Oil and Natural Gas Systems | 41,066 | 49,130 | 49,275 | 49,493 |
| Agriculture, Forestry and Other Fishing Activities | 2,658 | 2,600 | 2,580 | 2,562 |
| TOTAL | 1,698,809 | 1,502,306 | 1,341,401 | 1,018,793 |

NOTES:

Abbreviations: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent. These emissions account for the RPS, SB 100, and Title 24 updates.

Table B-4 presents emissions for 2018 along with the adjusted BAU forecast for 2030, 2035, and 2045 for the Transportation sector.

Table B-4: Transportation GHG Emissions – 2018 Inventory and Adjusted BAU Forecasts

| TRANSPORTATION SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Passenger Vehicles | 2,665,824 | 2,166,604 | 2,047,769 | 1,977,297 |
| Buses | 29,371 | 29,026 | 22,076 | 5,326 |
| Railways | 9,490 | 10,255 | 10,389 | 10,658 |
| TOTAL | 2,704,685 | 2,205,885 | 2,080,234 | 1,993,281 |

NOTES:

Abbreviations: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent. These emissions account for the Advanced Clean Cars regulations and Pavley vehicle efficiency standards.

Table B-5 presents total emissions for 2018 along with the Adjusted BAU forecast for 2030, 2035, and 2045 for all sectors.

Table B-5: Total GHG Emissions by Sector – 2018 Inventory and Adjusted BAU Forecasts

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|-------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Stationary Energy | 1,698,809 | 1,502,306 | 1,341,401 | 1,018,793 |
| Transportation | 2,704,685 | 2,205,885 | 2,080,234 | 1,993,281 |
| Waste | 469,382 | 451,919 | 454,097 | 482,489 |
| IPPU | 239,505 | 259,605 | 267,981 | 284,731 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 |
| TOTAL | 5,173,240 | 4,480,574 | 4,204,572 | 3,840,154 |

NOTES:
 Abbreviations: AFOLU = Agriculture, Forestry, and Other Land Use; BAU = business-as-usual; GHG = greenhouse gas; IPPU = Industrial Processes and Product Use; MTCO₂e = metric tons of carbon dioxide equivalent.
 Compared to the BAU forecasts, the Adjusted BAU forecast only differs for the Stationary Energy and Transportation sectors. Waste, IPPU, and AFOLU are not changed.

Figure B-1 presents total emissions for 2018 along with the BAU and Adjusted BAU forecast for 2030, 2035, and 2045 for all sectors.

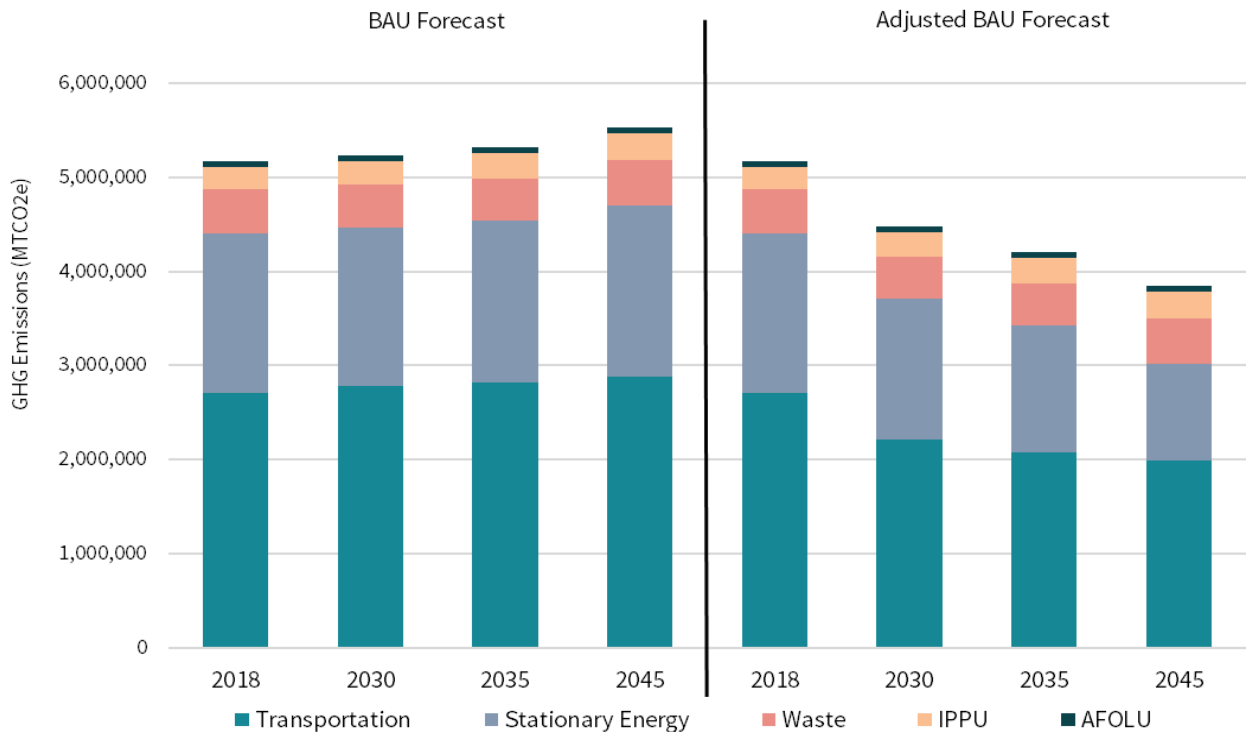


Figure B-1: GHG Emissions by Sector – 2018 Inventory, BAU Forecast, and Adjusted BAU Forecast

B.2 Greenhouse Gas Reduction Measures and Actions

Energy Supply

Strategy 1: Decarbonize the Energy Supply

MEASURE ES1: DEVELOP A SUNSET STRATEGY FOR ALL OIL AND GAS OPERATIONS

Table B-6: Measure ES1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 28,368 |
| 2035 | 40,178 |
| 2045 | 52,148 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal.

Performance Objectives

The goal of Measure ES1 is to reduce oil and gas operations by 40 percent by 2030, 60 percent by 2035, and 80 percent by 2045 (compared to 2015 baseline levels). The aspirational goal of Measure ES1, based on the OurCounty Sustainability Plan, is to cease all oil and gas operations by 2040.

Modeling Approach

Measure ES1 would apply to emissions occurring in the Energy Industries subsector of the Stationary Energy sector of unincorporated Los Angeles County’s GHG inventory. Specifically, Measure ES1 would reduce emissions from combined heat and power facilities and fugitive emissions from oil and natural gas systems. There are two combined heat and power facilities that would reduce emissions under this measure: the Pitchess Cogeneration Station in Saugus and the Olive View Medical Center Cogeneration Station in Sylmar. Both facilities combust natural gas to generate heat and electricity.

Both the Pitchess Cogeneration Station and the Olive View Medical Center Cogeneration Station are owned and operated by the County. The Pitchess Cogeneration Station was decommissioned in 2018 and its emissions decreased by 90 percent from 2017 to 2018. Under Measure ES1, these emissions were assumed to remain constant through 2045. The Olive View Medical Center Cogeneration Station will be decommissioned by 2023, so its emissions were reduced by 90 percent consistent with the reduction in emissions achieved when the Pitchess Cogeneration Station was decommissioned.

Measure ES1 would also reduce fugitive emissions from oil and natural gas systems equivalent to the measure’s performance objectives: 40 below 2015 levels by 2030, 60 percent by 2035, and

80 percent by 2045. These percentages were multiplied by 2015 emissions to estimate emissions reductions for each future year.

Assumptions

- The decommissioning of the Olive View Medical Center Cogeneration Station would reduce natural gas-related GHG emissions by 90 percent.
- Under Measure ES1, both the Pitchess Cogeneration Station and the Olive View Medical Center Cogeneration Station would continue to combust residual natural gas at 10 percent of their fully operational levels through 2045.
- Measure ES1 will reduce fugitive emissions from oil and natural gas systems linearly with the measure’s overall performance objectives for each future year.

Data Sources

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>

MEASURE ES2: PROCURE ZERO-CARBON ELECTRICITY

Table B-15: Measure ES2 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 477,188 |
| 2035 | 317,915 |
| 2045 | 0 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Supplying unincorporated Los Angeles County’s power demand with zero-carbon electricity¹⁹ is critical to achieving significant GHG emissions reductions. The CPA is a nonprofit and community choice energy provider that currently serves 32 communities across Southern California.

Performance Objectives

The goal of Measure ES2 is to enroll 100 percent of municipal facilities in CPA’s Green Power rate option (100 percent Renewables), SCE’s Green Rate option, or other available 100 percent zero carbon electricity service by 2030 and 96 percent of unincorporated Los Angeles County in CPA’s Green Power rate option, SCE’s Green Rate option, or other available 100 percent zero carbon electricity service by 2030 (4 percent opt-out rate).

Modeling Approach

The Measure ES2 calculations use Adjusted BAU electricity activity data and GHG emissions for residential and nonresidential uses in 2030, 2035, and 2045 as a baseline. The default participation rate in the CPA Lean and CPA Clean rate options was changed from 47 percent Clean and 48 percent Lean to 95.6 percent Green and 4.4 percent Lean by 2030 and 2035, and to 95.6 percent Green and 4.4 percent Clean by 2045. GHG emissions were calculated using the

¹⁹ “Zero-carbon electricity” means energy resources that either qualify as “renewable” in the most recent Renewables Portfolio Standard (RPS) Eligibility Guidebook or generate zero greenhouse gas emissions on-site, such as hydropower.

Measure ES2 participation rates and CPA emission factors for 2030, 2035, and 2045 (as described in B.1, *Stationary Energy*). GHG emissions after implementation of Measure ES2 were then subtracted from the Adjusted BAU forecast emissions to estimate the GHG emissions reductions produced by Measure ES2.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA Lean and SCE emission factors are equal; the SCE emission factors are applied to the to the “Opt Out/CPA Lean” category of electricity use in unincorporated Los Angeles County.
- The overall CPA participation rate (95.6 percent) remains constant through 2045.
- Measure ES2 is the first energy measure implemented; therefore, GHG emissions reductions associated with electricity savings as calculated in subsequent energy measures incorporate Measure ES2 participation rates and electricity emission factors.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE ES3: INCREASE RENEWABLE ENERGY PRODUCTION

Table B-18: Measure ES3 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 5,919 |
| 2035 | 5,219 |
| 2045 | 0 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Expand local solar power generation on existing and new development and for County projects.

Performance Objectives

The goal of Measure ES3 is to increase on-site solar electricity production for existing and new multifamily residential buildings, existing commercial buildings, and municipal buildings. The measure aims to install rooftop PV on 20 percent of existing multifamily residential buildings by 2030, 25 percent by 2035, and 35 percent by 2045; install rooftop solar PV on 15 percent of existing commercial buildings by 2030, 22 percent by 2035, and 32 percent by 2045; install rooftop solar PV on 80 percent of new multifamily residential buildings by 2030, 85 percent by 2035, and 95 percent by 2045; install rooftop solar PV on 40 percent of new commercial buildings by 2030, 50 percent by 2035, and 70 percent by 2045; and install 20,000 kilowatts (kW) of rooftop solar PV at county facilities. This measure also aims to install solar PV for community use and rooftop solar PV at all affordable housing developments.

Modeling Approach

Residential

GHG emissions reductions from rooftop solar PV were calculated using multifamily and single-family housing data and projections from the California Department of Finance. The baseline year for existing residential buildings is assumed to be 2023 because this is the earliest date that the 2045 CAP could be adopted and go into effect. Installation of rooftop solar PV on existing multifamily and single-family residential buildings therefore assumes a baseline year of 2023, and installation of rooftop solar PV on new multifamily residential buildings in 2030, 2035, and 2045 is based on the cumulative number of new multifamily households constructed from 2023 through each target years (e.g., the number of new multifamily residential buildings in 2030 is equal to the sum of all new multifamily housing built between 2023 and 2030).

The total number of existing and new households for each target year was then multiplied by the solar PV installation rate for each target year to obtain the number of participating households installing rooftop solar PV through implementation of Measure ES3. The average multifamily solar system size of 6.1 kW was calculated using data from Center for Sustainable Energy's *Fostering a Future for Multifamily Solar* study for the City of Santa Monica.²⁰ The average annual system electricity production (or system output) in kWh was then determined by inputting the 6.1 kW average system size into the National Renewable Energy Laboratory (NREL) PVWatts calculator for a project located in Los Angeles.²¹ The average system output was then multiplied by the number of participating households for both existing and new multifamily development to determine the total solar production (in kWh) for each target year. GHG emissions reductions were calculated by multiplying the total solar production by the relevant SCE and CPA electricity emission factors, using the same participation rates and electricity emission factors implemented under Measure ES2.

For existing single-family residential buildings, the total number of households was multiplied by the solar PV installation rate for each target year to obtain the number of participating households installing rooftop solar PV through implementation of Measure ES5. The average single-family solar system size of 6.3 kW was calculated using data from using statewide data from Berkeley Laboratory's *Tracking the Sun* database.²² The average annual system electricity production (or system output) in kWh was then determined by inputting the 6.3 kW average system size into the NREL PVWatts calculator for a project located in Los Angeles.²³ The average system output was then multiplied by the number of participating households for existing single-family development to determine the total solar production (in kWh) for each target year. GHG emissions reductions were calculated by multiplying the total solar production by the relevant SCE and CPA electricity emission factors, using the same participation rates and electricity emission factors implemented under Measure ES2.

²⁰ Center for Sustainable Energy. 2018. *Fostering a Future for Multifamily Solar in Santa Monica, CA*. February 2018. Available: <https://energycenter.org/sites/default/files/docs/nav/programs/smp/SantaMonicaMarketProfile.pdf>. Accessed November 2021.

²¹ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

²² Berkeley Laboratory. 2021. *Tracking the Sun*. September 2021. Available: <https://emp.lbl.gov/tracking-the-sun>. Accessed November 2021.

²³ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

Measure E6 does not include rooftop solar PV installations on new single-family residential buildings because this is already required through the current 2019 Title 24 standards and also the new 2022 Title 24 standards and is therefore accounted for in the Adjusted BAU forecast.

Commercial

GHG emissions reductions from rooftop solar PV were calculated using existing and new commercial building square footage data from UCLA.²⁴ Like residential buildings above, the baseline year for existing commercial buildings is assumed to be 2023. Installation of rooftop solar PV on existing commercial buildings therefore assumes a baseline year of 2023, and installation of rooftop solar PV on new commercial buildings in 2030, 2035, and 2045 is based on the cumulative number of new commercial square footage constructed from 2023 through each target year (e.g., the number of new commercial square footage in 2030 is equal to the sum of all new commercial square footage built between 2023 and 2030).

Similar to residential buildings, the building square footage was multiplied by the solar PV installation rate for each target year to obtain the total participating commercial square footage installing rooftop solar PV through implementation of Measure ES3. The total number of commercial solar systems was determined by dividing the participating square footage by the average square footage of a commercial building in California of 15,599 square feet.²⁵ The average commercial solar system size was estimated using statewide data from Berkeley Laboratory's *Tracking the Sun* database; this value is 137.1 kW per commercial system.²⁶ The average annual electricity production (or system output) in kWh was then determined by inputting the average system size into the NREL PVWatts calculator for a project located in Los Angeles.²⁷ The average system output was then multiplied by the number of commercial solar systems for both existing and new development to determine the total solar production (in kWh) for each target year. GHG emissions reductions were calculated by multiplying the total solar production by the relevant SCE and CPA electricity emission factors, using the same participation rates and electricity emission factors implemented under Measure ES2.

Municipal

GHG emissions reductions from municipal solar PV installations assumes that the County will install a total of 30 solar systems on County facilities, producing a total capacity of 20 MW. The average system output was then determined by inputting a 20 MW production value into the NREL PVWatts calculator for a project located in Los Angeles.²⁸ The total system output for 20 MW of solar was then multiplied by the relevant SCE and CPA electricity emission factors, using the same participation rates and emission factors implemented under Measure ES2.

²⁴ UCLA Institute of Environmental Studies. 2018. Analysis of County of Los Angeles Parcel Assessor's Data.

²⁵ Energy Information Administration. 2021. *2018 Commercial Buildings Energy Consumption Survey*. September 2021. Available: https://www.eia.gov/consumption/commercial/data/2018/pdf/CBECS_2018_Building_Characteristics_Flipbook.pdf. Accessed November 2021.

²⁶ Berkeley Laboratory. 2021. *Tracking the Sun*. September 2021. Available: <https://emp.lbl.gov/tracking-the-sun>. Accessed November 2021.

²⁷ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

²⁸ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in Section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- Existing building stock represents the built environment through the year 2023.
- New building stock represents new development starting in 2025.
- The average multifamily solar PV system size is 6.1 kW; each system produces 10,067 kWh per year.
- The average single-family solar PV system size is 6.3 kW; each system produces 10,466 kWh per year.
- The average commercial building solar PV system size is 137.1 kW; each system produces 227,758 kWh per year.
- 20 MW of solar PV is installed at municipal facilities; these systems produce 36,068,108 kWh per year.
- Annual GHG emissions reductions for each target year (2030, 2035, and 2045) reflect all buildings electrified in all previous years (e.g., all buildings electrified from 2025–2030 contribute to annual emissions reductions in 2030).
- New single-family residential buildings are required to install solar PV pursuant to the 2019 and 2022 Title 24 standards.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021
- California Department of Finance Demographic data
Link: <https://www.dof.ca.gov/Forecasting/Demographics/>
- UCLA analysis of County of Los Angeles Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies
- Center for Sustainable Energy, Fostering a Future for Multifamily Solar in Santa Monica, CA.
Link: <https://energycenter.org/sites/default/files/docs/nav/programs/smp/SantaMonicaMarketProfile.pdf>
- USEIA, 2018 Commercial Buildings Energy Consumption Survey
Link: https://www.eia.gov/consumption/commercial/data/2018/pdf/CBECS_2018_Building_Characteristics_Flipbook.pdf
- Berkeley Laboratory, Tracking the Sun
Link: <https://emp.lbl.gov/tracking-the-sun>
- NREL, PVWatts Calculator
Link: <https://pvwatts.nrel.gov/>

Transportation

GHG emissions reductions modeled for Measures T1, T2, T3, and T4 are based on changes to planned land use and transportation infrastructure (such as bikeways and transit) already envisioned in existing County plans and programs, such as the 2021 Housing Element Update and its Program EIR, the Los Angeles County Bike Master Plan (2012), the LA Metro NextGen Plan (2020), and LA Metro Long Range Transportation Plan (2020). The 2045 CAP does not result in any new changes to land use or transportation infrastructure than what was already analyzed in these existing plans and their CEQA documents. Consequently, the 2045 CAP merely models the GHG emissions reductions associated with the changes to land use and transportation infrastructure that were already analyzed elsewhere.

Strategy 2: Increase Densities and Diversity of Land Uses Near Transit

MEASURE T1: INCREASE DENSITY NEAR HIGH-QUALITY TRANSIT AREAS

Table B-7: Measure T1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 27,357 |
| 2035 | 26,019 |
| 2045 | 25,276 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Increase housing opportunities that are affordable and near transit, to reduce VMT.

Performance Objectives

The goal of Measure T1 is to increase residential density by achieving a minimum of 20 dwelling units (DU) per acre (maximum of 30–150 DU/acre) for High Quality Transit Areas (HQTAs), locate residential and employment centers in unincorporated Los Angeles County within one mile of an HQTA, and increase the dwelling units within HQTAs by 27 percent.

Modeling Approach

VMT reductions were estimated using research documented in the 2021 California Air Pollution Control Officers Association (CAPCOA) publication *Quantifying Greenhouse Gas Mitigation Measures* (referred to herein as the “CAPCOA handbook”).²⁹ To quantify VMT reductions, appropriate equations were used based on factsheets in the CAPCOA handbook. Using data from a County GIS shapefile layer showing the 2021–2029 Housing Element Rezone Areas and a major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool released in late 2020, along with CAPCOA equations, percent reductions in VMT were estimated for Measure T1. Specifically, it was assumed that the residential density within HQTAs as planned for in the 2021–2029 Housing Element would be 20 DU per acre (the Housing Element analyzed densities from 20 DU/acre to 50 du/acre) compared to the typical density value of 9.1 DU/acre, resulting in a 26.4 percent reduction in passenger vehicle VMT for affected areas. This reduction was applied to the specific home-based VMT occurring within the affected transit-oriented design (TOD) areas in unincorporated Los Angeles County.

VMT was calculated at the transportation analysis zone (TAZ) level.³⁰ Once the percent VMT reductions were determined, based on the geographic scope and VMT category of Measure T1, the appropriate VMT was aggregated across the relevant TAZs within which residential densities would increase. Percent reductions were then applied to appropriate VMT subtotals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty

²⁹ California Air Pollution Control Officers Association. 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, California Air Pollution Control Officers Association. December 2021. Available: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>. Accessed January 2022.

³⁰ TAZs are comparable in size and shape to census tracts or block groups depending on the travel demand model used and level of modeling detail.

vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045).

GHG reductions from Measure T1 are calculated using daily VMT reductions, as described above.³¹ The average daily VMT reductions achieved through implementation of Measure T1 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were then calculated by multiplying the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³²

Assumptions

- The residential density within HQTAs as planned for in the County’s 2021–2029 Housing Element would be 20 DU per acre.
- The typical residential density without the County’s 2021 Housing Element Update is 9.1 DU per acre.
- VMT reductions apply to home-based VMT occurring within the affected TOD and HQTA areas in unincorporated Los Angeles County.
- Daily VMT reductions are annualized by multiplying by 347 days.
- Passenger vehicle category corresponds to the EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- Major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool (2020)
- California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 22, 2023)
- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update - VMT Technical Memorandum (February 23, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

MEASURE T2: DEVELOP LAND USE PLANS ADDRESSING JOBS-HOUSING BALANCE AND INCREASE MIXED USE

Table B-8: Measure T2 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 39,184 |
| 2035 | 37,267 |
| 2045 | 36,204 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Increasing density and the mix of land uses can help reduce single-occupancy trips, the number of trips, and trip lengths.

³¹ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary. February 22, 2023.

³² California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Performance Objectives

The goal of Measure T2 is to increase job density to 300 jobs per acre by 2030.

Modeling Approach

To quantify VMT reductions for Measure T2, appropriate equations were used based on factsheets in the CAPCOA handbook. Using data from a County GIS shapefile layer showing the 2021–2029 Housing Element Rezone Areas and a major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool released in late 2020, along with CAPCOA equations, percent reductions in VMT were estimated for Measure T2. Specifically, it was assumed that the transit mode share as planned for in the as planned for in the County’s SB 743 VMT Tool would be 27 percent compared to the typical transit mode share of 15 percent, resulting in a 31.8 percent reduction in passenger vehicle VMT for affected areas. This reduction was applied to the total VMT occurring within the affected TOD areas in unincorporated Los Angeles County.

VMT was calculated at the TAZ level. Once the percent VMT reductions were determined, based on the geographic scope and VMT category of Measure T2, the appropriate VMT was aggregated across the relevant TAZs within which transit mode shift would increase. Percent reductions were then applied to appropriate VMT subtotals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045).

GHG reductions from Measure T2 are calculated using daily VMT reductions, as described above.³³ The average daily VMT reductions achieved through implementation of Measure T2 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were then calculated by multiplying the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³⁴

Assumptions

- The transit mode share would increase from 15 percent to 27 percent under this measure, based on the County’s 2021 Housing Element Update and the County’s SB 743 VMT Tool.
- VMT reductions apply to the total VMT occurring within the affected TOD areas in unincorporated Los Angeles County.
- Daily VMT reductions are annualized by multiplying by 347 days
- Passenger vehicle category corresponds to the EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- Major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool (2020)
- 2012 California Household Travel Survey
Link: <https://www.nrel.gov/transportation/secure-transportation-data/tsdc-california-travel-survey.html>
- California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures
Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 22, 2023)

³³ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary, February 22, 2023.

³⁴ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. 2021. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update – VMT Technical Memorandum (February 22, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

Strategy 3: Reduce Single-Occupancy Vehicle Trips

MEASURE T3: EXPAND BICYCLE AND PEDESTRIAN NETWORK TO SERVE RESIDENTIAL, EMPLOYMENT, AND RECREATIONAL TRIPS

Table B-9: Measure T3 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 0 |
| 2035 | 2,811 |
| 2045 | 2,730 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles.

Performance Objectives

The goal of Measure T3 is to increase bikeway miles by 300 percent by 2035.

Modeling Approach

To quantify VMT reductions for Measure T3, appropriate equations were used based on factsheets in the CAPCOA handbook. Using data from a County GIS shapefile layer showing the 2021–2029 Housing Element Rezone Areas and the 2012 County of Los Angeles Bicycle Master Plan, along with CAPCOA equations, percent reductions in VMT were estimated for Measure T3. Specifically, it was assumed that the bikeway network as planned for in the 2012 County of Los Angeles Bicycle Master Plan would be increased by more than threefold by 2035 as compared to existing conditions, resulting in a 0.5 percent reduction in Countywide passenger vehicle VMT. This reduction was applied to the total VMT occurring within unincorporated Los Angeles County. The sum of these VMT reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045).

GHG reductions from Measure T3 are calculated using daily VMT reductions, as described above.³⁵ The average daily VMT reductions achieved through implementation of Measure T3 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were then calculated by multiplying

³⁵ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary, February 22, 2023.

the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³⁶

Assumptions

- The County’s bikeway network as planned for in the 2012 County of Los Angeles Bicycle Master Plan would be increased by more than threefold by 2035 as compared to existing conditions.
- The reduction in VMT applies to the total VMT occurring within unincorporated Los Angeles County.
- Daily VMT reductions are annualized by multiplying by 347 days.
- Passenger vehicle category corresponds to EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- 2012 County of Los Angeles Bicycle Master Plan
Link: <https://pw.lacounty.gov/tpp/bike/masterplan.cfm>
- California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measure
Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 23, 2023)
- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update - VMT Technical Memorandum (February 23, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

MEASURE T4: BROADEN OPTIONS FOR TRANSIT, ACTIVE TRANSPORTATION, AND ALTERNATIVE MODES OF TRANSPORTATION

Table B-10: Measure T4 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 11,465 |
| 2035 | 10,904 |
| 2045 | 10,593 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Transit service, micro mobility services (such as bike-share, scooter-share, and drone deliveries), and access to these transportation options can help reduce VMT.

Performance Objectives

The goal of Measure T4 is to, by 2030, double transit service hours from 560,000 to 1.12 million hours, install bus-only lanes on all major transit thoroughfares, and that 75 percent of unincorporated Los Angeles County residents will live within one-half mile of shuttle or mobility service. Measure T4 has several additional performance goals, such as that all transit corridors will have micro mobility service and to prioritize micro mobility along equity areas and high-quality transit corridors.

³⁶ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Modeling Approach

To quantify VMT reductions for Measure T4, appropriate equations were used based on factsheets in the CAPCOA handbook. VMT reductions and associated GHG emissions reductions were quantified for two separate implementing actions that support Measure T4: Action T4.1 (Expand and improve frequency of County shuttles and explore new mobility services, such as micro transit, autonomous vehicles, micro mobility, and on-demand autonomous shuttles) and Action T4.2 (Install bus-only lanes and signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate).

VMT reductions from Action T4.1 were calculated using a major transit stop GIS layer developed as part of the County's SB 743 VMT Tool released in late 2020 and information from the LA Metro NextGen Bus Plan (2020) and the LA Metro Long Range Transportation Plan (2020), along with CAPCOA equations. Specifically, the transit mode share of 4.6 percent per the 2012 California Household Travel Survey was used, and it was assumed that implementation of Action T4.1 would increase the total number of transit service hours in unincorporated Los Angeles County from 560,000 to 1.12 million after transit expansion. This value is based on the Metro NextGen report. This increase in transit service hours would result in a 1.9 percent reduction in Countywide passenger vehicle VMT. This reduction was applied to the total VMT occurring within unincorporated Los Angeles County. This VMT reduction was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045).

VMT reductions from Action T4.2 were calculated using a major transit stop GIS layer developed as part of the County's SB 743 VMT Tool released in late 2020 and information from the LA Metro NextGen Plan and LA Metro Long Range Transportation Plan, along with CAPCOA equations. Specifically, the transit mode share of 4.6 percent per the 2012 California Household Travel Survey was used, and it was assumed that implementation of Action T4.2 would result in 100 percent of all transit routes in unincorporated Los Angeles County will receive bus-only lanes, signal prioritization along major thoroughfares, and full bus rapid transit infrastructure along priority corridors. This value is based on the LA Metro NextGen Plan and LA Metro Long Range Transportation Plan. This infrastructure would result in a 0.6 percent reduction in total VMT occurring in unincorporated Los Angeles County's TOD areas and HQTAs. VMT was calculated at the TAZ level. Once the percent VMT reductions were determined, based on the geographic scope and VMT category of Measure T4.2, the appropriate VMT was aggregated across the relevant TAZs within which transit mode shift would increase. Percent reductions were then applied to appropriate VMT subtotals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045).

GHG reductions from Measure T4 are calculated using daily VMT reductions, as described above.³⁷ The average daily VMT reductions achieved through implementation of Measure T4 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were then calculated by multiplying

³⁷ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary, February 22, 2023.

the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³⁸

Assumptions

- The baseline transit mode share is 4.6 percent, per the 2012 California Household Travel Survey.
- For Action T4.1, the total number of transit service hours in unincorporated Los Angeles County would increase from 560,000 to 1.12 million after transit expansion.
- For Action T4.1, the reduction in VMT applies to the total VMT occurring within unincorporated Los Angeles County.
- For Action T4.2, 100 percent of all transit routes in unincorporated Los Angeles County will receive bus-only lanes, signal prioritization along major thoroughfares, and full bus rapid transit infrastructure along priority corridors.
- For Action T4.2, VMT reductions apply to the relevant TAZs within which transit mode shift would increase.
- Daily VMT reductions are annualized by multiplying by 347 days.
- Passenger vehicle category corresponds to the EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- Major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool (2020)
- LA Metro 2020 Long Range Transportation Plan, March 2020.
Link: <https://www.metro.net/about/plans/long-range-transportation-plan/>
- LA Metro NextGen Bus Plan, October 2020
Link: <https://www.metro.net/about/plans/nextgen-bus-plan/>
- 2012 California Household Travel Survey
Link: <https://www.nrel.gov/transportation/secure-transportation-data/tsdc-california-travel-survey.html>
- California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*
Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 22, 2023)
- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update - VMT Technical Memorandum (February 22, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

Strategy 4: Institutionalize Low-Carbon Transportation

MEASURE T6: INCREASE ZEV MARKET SHARE AND REDUCE GASOLINE AND DIESEL FUEL SALES

Table B-11: Measure T6 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 482,515 |
| 2035 | 820,125 |
| 2045 | 1,535,101 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

³⁸ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Description

Increase unincorporated Los Angeles County's ZEV market share and vehicle penetration to the maximum extent feasible. Set targets for reducing total gasoline and diesel vehicle fuel sales.

Performance Objectives

The goal of Measure T6 is to increase the total amount of light-duty vehicles in unincorporated Los Angeles County that are ZEVs to 30 percent by 2030, 50 percent by 2035, and 90 percent by 2045; to increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to 68 percent by 2030 and 100 percent by 2035; to install 38,000 total new public and private shared EVCS (including EVCS at County facilities and properties) by 2030, 74,000 total new EVCS by 2035, and 140,000 total new EVCS by 2045; and to install 5,000 total new EVCS at County facilities and properties, 10,000 total new EVCS by 2035, and 25,000 total new EVCS by 2045.

Modeling Approach

The Measure T6 calculations use Adjusted BAU GHG emissions from passenger vehicles as a baseline. To calculate the portion of the passenger vehicle fleet that are ZEVs under Measure T6, the passenger vehicle electrification performance goals for each future year were applied to the total vehicle population and Countywide VMT outputs of the applicable EMFAC2021 model passenger vehicle types (LDA, LDT1, LDT2, MCY, and MDV). The remaining non-ZEV population and Countywide VMT by fuel type (diesel, gasoline, and plug-in hybrid) was distributed proportionally for each vehicle type based on Countywide fuel type distribution data from EMFAC2021. The adjusted ZEV population and VMT values with implementation of Measure T6 were then factored back in to the VMT-weighted emission factor calculations used for the Adjusted BAU forecast (see section B.2 above) to calculate new fleetwide vehicle emission rates under Measure T6. The recalculated weighted emission factors for passenger vehicles were then applied to the total passenger vehicle VMT by year to estimate GHG emissions with implementation of Measure T6.

Electric vehicle miles traveled (e-VMT) were then calculated for the Adjusted BAU forecast and for the scenario with implementation of Measure T6 by multiplying the total passenger vehicle VMT for each year by the electric vehicle share under each scenario. The e-VMT was then multiplied by electricity factors (kWh/mile) derived from EMFAC2021 to determine the total electricity consumption from electric vehicles. GHG emissions associated with this electricity use were estimated using the same participation rates and emission factors implemented under Measure ES2, as described below. Total GHG emissions reductions from Measure T6 were calculated by subtracting GHG emissions associated with Measure T6 implementation for passenger vehicles and electric vehicle charging from GHG emissions under the Adjusted BAU forecast for passenger vehicles and electric vehicle charging.

Measure T6 substantially reduces GHG emissions in the county; this measure is the most effective measure in the 2045 CAP.

Assumptions

- Increased electric vehicle adoption displaces all other vehicle types (diesel, gasoline, plug-in hybrid) and non-ZEV VMT is redistributed proportional to each fuel type's share of total population and VMT (from EMFAC2011).
- The efficiency of electric vehicles remains constant throughout all future years.

- The County passenger fleet vehicle population remains constant through 2045.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 below.
- CPA participation rates after implementation of Measure ES2.

Data Sources

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- Alternative Fuels Data Center, Annual Average VMT per Vehicle
Link: <https://afdc.energy.gov/data/10309>
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtq4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtq4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE T7: ELECTRIFY COUNTY FLEET VEHICLES

Table B-12: Measure T7 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 29,743 |
| 2035 | 24,335 |
| 2045 | 10,119 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Electrify the County bus, shuttle, and light-duty vehicle fleet and shuttles.

Performance Objectives

The goals of this measure are to increase the total amount of light-duty vehicles in the County-owned fleet that are ZEVs to 35 percent by 2030, 60 percent by 2035, and 100 percent by 2045; to electrify the entire County bus and shuttle fleet by 2035; and to electrify 15 of the County’s inmate buses by 2030, 30 inmate buses by 2035, and 68 inmate buses by 2045.

Modeling Approach

GHG emissions reductions associated with electrification of County passenger fleet vehicles were calculated for Measure T7. The total number of County fleet passenger vehicles was provided by the County’s Internal Services Department (ISD).³⁹ Total VMT for these vehicles were estimated based on an annual average VMT per vehicle from the Alternative Fuels Data Center.⁴⁰ This average VMT value was then multiplied by the number of vehicles to estimate the total annual VMT for County fleet passenger vehicles. The baseline (Adjusted BAU) e-VMT was estimated based on the number of electric vehicle purchases in fiscal year 2019–20 as a percentage of total passenger fleet vehicles from the County’s Annual Clean Fuel Sustainability Report. e-VMT under implementation of Measure T6 was estimated using the total passenger fleet vehicle VMT and electric vehicle fleet goals specific to the County fleet (35 percent by 2030, 60 percent by 2035,

³⁹ County of Los Angeles Internal Services Department. 2021. *Annual Clean Fuel Sustainability Report*.

⁴⁰ Alternative Fuels Data Center. 2020. Annual Average VMT per Vehicle. February 2020. Available: <https://afdc.energy.gov/data/10309>. Accessed November 2021.

and 100 percent by 2045). GHG emissions for electrified passenger fleet vehicles with implementation of Measure T6 were then calculated by multiplying total VMT by adjusted VMT-weighted emission factors from EMFAC2021 using the same method as discussed above for the Countywide fleet, scaled to match the light-duty fleet electrification performance objectives of this measure. These emissions were subtracted from the Adjusted BAU forecast GHG emissions for the County passenger vehicle fleet in order to estimate GHG emissions reductions for Measure T7 for county light-duty fleet vehicles. Only the portion of GHG emissions reductions for county fleet vehicles that exceed the ZEV goals of Measure T6 were included in Measure T7, to avoid double-counting the effects of Measure T6 on the county-owned fleet.

The Measure T7 calculations use Adjusted BAU fuel use and GHG emissions from public transit buses as a baseline. Measure T7 assumes a 100 percent electrification rate of all County fleet buses by 2030. To calculate GHG emissions reductions associated with Measure T7, fuel use from diesel, gasoline, and compressed natural gas under the Adjusted BAU forecast was converted to electricity using specific energy effectiveness ratios (EERs) by fuel type and conversion factors from gallons to British thermal units (Btu) and Btu to electricity use.^{41,42} The EERs account for the change in vehicle energy efficiency when substituting one fuel for another. GHG emissions associated with implementation of Measure T7 were calculated using the same participation rates and emission factors implemented under Measure ES2, as discussed below. GHG emissions after implementation of Measure T7 were then subtracted from the Adjusted BAU GHG emissions to estimate the emissions reductions from Measure T7.

Measure T7 also includes electrification of the County's inmate bus fleet. The total number of inmate buses in the County's fleet (88) was provided by the Los Angeles County Sheriff's Department.⁴³ Annual VMT for the County's inmate bus fleet was estimated based on an annual average VMT value of 12,000 per bus from the Alternative Fuels Data Center.⁴⁴ The average inmate bus VMT was then multiplied by the total number of inmate buses to estimate the total annual VMT for inmate buses. The baseline e-VMT was assumed to be zero given that the Sheriff's Department does not currently operate any electric inmate buses. e-VMT from implementation of Measure T7 was determined using data provided by the Los Angeles County Sheriff's Department on planned electrification of the inmate bus fleet: 15 buses electrified by 2030, 30 buses electrified by 2035, and 68 buses electrified by 2045.⁴⁵ GHG emissions associated with the electrification of inmate buses under Measure T7 were calculated using weighted average bus emission factors from EMFAC2021 multiplied by the annual diesel VMT and e-VMT; these emissions were then subtracted from the GHG emissions in the Adjusted BAU forecast to determine emissions reductions.

⁴¹ Navius Research. 2018. *Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles*. November 6, 2018. Available: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>. Accessed November 2021.

⁴² Alternative Fuels Data Center. 2021. Fuel Properties. January 2021. Available: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.

⁴³ County of Los Angeles Internal Services Department. 2021. *Annual Clean Fuel Sustainability Report*.

⁴⁴ Alternative Fuels Data Center. 2020. Annual Average VMT per Vehicle. February 2020. Available: <https://afdc.energy.gov/data/10309>. Accessed November 2021.

⁴⁵ Los Angeles County Sheriff's Department email correspondence (2021).

Assumptions

- The County passenger fleet vehicle annual average VMT per vehicle value of 11,467 remains constant through 2045.
- Complete electrification of the transit bus fleet by 2030.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 below.
- CPA participation rates after implementation of Measure ES2.
- EERs applied to each non-electric fuel type to convert to electricity.
- The County inmate bus fleet vehicle annual average VMT per bus value of 12,000 remains constant through 2045.

References

- County of Los Angeles Internal Services Department, Annual Clean Fuel Sustainability Report, 2021.
- Navius Research, Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles
Link: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>.
- Alternative Fuels Data Center, Fuel Properties.
Link: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.
- County of Los Angeles Internal Services Department, Annual Clean Fuel Sustainability Report, 2021.
- Alternative Fuels Data Center, Annual Average VMT per Vehicle
Link: <https://afdc.energy.gov/data/10309>.
- Los Angeles County Sheriff's Department email correspondence (2021)
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE T8: ACCELERATE FREIGHT DECARBONIZATION

Table B-13: Measure T8 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 86,168 |
| 2035 | 103,528 |
| 2045 | 176,638 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure.

Performance Objectives

The goal of this measure is to achieve a total market share of ZEVs for medium- and heavy-duty vehicles of 40 percent by 2030, 60 percent by 2035, and 90 percent by 2045; transition 50 percent of medium- and heavy-duty vehicles in the County-owned fleet to ZEVs by 2030, 70 percent by 2035, and 95 percent by 2045; ensure that 100 percent of the drayage truck fleet is ZEV by 2035; ensure that 100 percent of sales of medium- and heavy-duty trucks are ZEV by

2045; require that all new warehouse loading docks have EVCS by 2030; and require that all existing warehouse loading docks have EVCS by 2030.

Modeling Approach

The Measure T8 calculations use Adjusted BAU GHG emissions from medium- and heavy-duty trucks as a baseline. To calculate the portion of the medium- and heavy-duty truck fleet that are ZEVs under Measure T8, the truck electrification performance goals for each future year were applied to the total vehicle population and Countywide VMT outputs of the applicable EMFAC2021 model medium- and heavy-duty vehicle types (LHDT1, LHDT2, MHDT, HHDT, and MH). The remaining non-ZEV population and Countywide VMT by fuel type (diesel, gasoline, and natural gas) was distributed proportionally for each vehicle type based on Countywide fuel type distribution data from EMFAC2021. The adjusted ZEV population and VMT values with implementation of Measure T8 were then factored back into the VMT-weighted emission factor calculations used for the Adjusted BAU forecast (see section B.2 above) to calculate new fleetwide vehicle emission rates under Measure T8. The recalculated weighted emission factors for trucks were then applied to the total medium- and heavy-duty truck VMT by year to estimate GHG emissions with implementation of the Measure T8.

The e-VMT were then calculated for the Adjusted BAU forecast and for the scenario with implementation of Measure T8 by multiplying the total medium- and heavy-duty truck VMT for each year by the electric vehicle share under each scenario.⁴⁶ The e-VMT was then multiplied by electricity factors (kWh/mile) derived from EMFAC2021 to determine the total electricity consumption from electric vehicles. GHG emissions associated with this electricity use were estimated using the same participation rates and emission factors implemented under Measure ES2, as described below. Total GHG emissions reductions from Measure T8 were calculated by subtracting GHG emissions associated with Measure T8 implementation for medium- and heavy-duty trucks and electric vehicle charging from GHG emissions under the Adjusted BAU forecast for medium- and heavy-duty trucks and electric vehicle charging.

GHG emissions reductions associated with electrification of the County's medium- and heavy-duty fleet vehicles were also calculated for Measure T8. The total number of County fleet medium- and heavy-duty trucks was provided by ISD.⁴⁷ Total VMT for these vehicles were estimated based on an annual average VMT per truck from the Alternative Fuels Data Center.⁴⁸ This average VMT value was then multiplied by the number of trucks to estimate the total annual VMT for the County's medium- and heavy-duty fleet vehicles. The baseline (Adjusted BAU) e-VMT was estimated based on the number of electric truck purchases in fiscal year 2019–20 as a percentage of total medium- and heavy-duty fleet vehicles from the County's Annual Clean Fuel Sustainability Report. e-VMT under implementation of Measure T8 was estimated using the total medium- and heavy-duty fleet vehicle VMT and electric truck fleet goals specific to the County fleet (60 percent by 2030, 80 percent by 2035, and 95 percent by 2045). GHG emissions for electrified medium- and heavy-duty fleet vehicles with implementation of Measure T8 were then calculated by multiplying total VMT by adjusted VMT-weighted emission factors from EMFAC2011 using the same method as discussed above for the Countywide fleet. These

⁴⁶ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

⁴⁷ County of Los Angeles Internal Services Department. 2021. *Annual Clean Fuel Sustainability Report*.

⁴⁸ Alternative Fuels Data Center. 2020. Annual Average VMT per Vehicle. February 2020. Available: <https://afdc.energy.gov/data/10309>. Accessed November 2021.

emissions were subtracted from the Adjusted BAU forecast GHG emissions for the County’s medium- and heavy-duty vehicle fleet to estimate GHG emissions reductions for Measure T8 for County fleet vehicles.

Assumptions

- Increased electric vehicle adoption displaces all other vehicle types (diesel, gasoline, natural gas) and VMT is redistributed proportional to the fuel type’s share of total population and VMT.
- The County’s medium- and heavy-duty fleet vehicle population remains constant through 2045.
- The County’s medium- and heavy-duty fleet vehicle annual average VMT per vehicle value of 16,326 remains constant through 2045.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA participation rates after implementation of Measure ES2.

Data Sources

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- County of Los Angeles Internal Services Department, Annual Clean Fuel Sustainability Report, 2021
- Alternative Fuels Data Center, Annual Average VMT per Vehicle
Link: <https://afdc.energy.gov/data/10309>.
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE T9: EXPAND USE OF ZERO-EMISSION TECHNOLOGIES FOR OFF-ROAD VEHICLES AND EQUIPMENT

Table B-14: Measure T9 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 8,373 |
| 2035 | 21,819 |
| 2045 | 44,964 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Prohibit the use of gas- and diesel-powered small (≤25 horsepower) off-road equipment and increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.

Performance Objectives

The goal of this measure is to increase the total amount of off-road fleet and equipment in unincorporated Los Angeles County that are ZEVs to 20 percent by 2030, 50 percent by 2035, and 95 percent by 2045; and to increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in unincorporated Los Angeles County that are ZEVs to 50 percent by 2030, 75 percent by 2035, and 100 percent by 2045.

Modeling Approach

The Measure T9 calculations use Adjusted BAU off-road vehicle fuel consumption and GHG emissions as a baseline for estimating GHG emissions reductions. Measure T9 aims to electrify unincorporated Los Angeles County's off-road vehicles and equipment by an increasing percentage in each future year. To calculate GHG emissions reductions associated with Measure T9, fuel use from diesel, gasoline, and compressed natural gas under the Adjusted BAU forecast was multiplied by electrification rates by target year and then converted to electricity using specific EERs by fuel type and conversion factors from gallons to Btu and Btu to electricity use.^{49,50} GHG emissions from electricity under Measure T9 were calculated using the same participation rates and emission factors implemented under Measure ES2, as discussed below. Diesel, gasoline, and natural gas GHG emissions were calculated using emission factors derived from CARB's OFFROAD2017 ORION model.⁵¹ GHG emissions after implementation of Measure T9 were then subtracted from the Adjusted BAU GHG emissions to estimate the emissions reductions from Measure T9.

Assumptions

- Natural gas-fueled equipment is not displaced by electric equipment.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 below.
- CPA participation rates after implementation of Measure ES2.
- EERs applied to each non-electric fuel type to convert to electricity.

References

- CARB OFFROAD ORION Model
Link: <https://arb.ca.gov/emfac/>
- Navius Research, Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles
Link: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>.
- Alternative Fuels Data Center, Fuel Properties.
Link: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

Building Energy and Water

Building Energy and Water Measure Order of Implementation

To avoid double counting GHG emissions reductions for measures that reduce emissions in building energy and water, these measures account for overlapping effects. For example, Measure ES2 (Procure Zero Carbon Electricity) is implemented first and includes electricity emission factors and CPA participation rates that are applied through the remaining building

⁴⁹ Navius Research. 2018. *Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles*. November 6, 2018. Available: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>. Accessed November 2021.

⁵⁰ Alternative Fuels Data Center. 2021. Fuel Properties. January 2021. Available: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.

⁵¹ California Air Resources Board. 2018. OFFROAD ORION. Available: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

energy and water measures. Further, each measure’s baseline activity data (i.e., electricity and natural gas consumption) are affected by the ordering of the measures. For example, grid electricity savings from solar production under Measure ES3 (Increase Renewable Energy Production) are subtracted from the adjusted BAU electricity activity data for the relevant building sector and the resulting electricity usage is used as the new “baseline” activity data for the next measure, Measure E4 (Improve Energy Efficiency of Existing Buildings). After Measure E4 is implemented, the new “baseline” activity data are recalculated and used as the new “baseline” total electricity usage for Measure E1 (Decarbonize Existing Buildings). For calculation purposes, measures were assumed to be implemented in the following order:

1. Measure ES2: Procure Zero Carbon Electricity
2. Measure ES3: Increase Renewable Energy Production
3. Measure E4: Improve Energy Efficiency of Existing Buildings
4. Measure E1: Decarbonize Existing Buildings
5. Measure E2: Standardize All-Electric New Development
6. Measure E5: Increase Use of Recycled Water and Gray Water Systems

Note that Measure E2 (Decarbonize New Development) is independent of the other measures because it exclusively applies to new development and therefore does not use the same baseline activity data as the other measures.

Strategy 5: Decarbonize Buildings

MEASURE E1: DECARBONIZE EXISTING BUILDINGS

Table B-16: Measure E1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 176,072 |
| 2035 | 280,988 |
| 2045 | 477,221 |

*Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.*

Description

As the carbon intensity of grid-supplied electricity decreases, decarbonization must be combined with building decarbonization, shifting the energy load from fossil fuels to carbon-free energy sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to decarbonize applicable existing buildings. A primary alternative to fossil natural gas is renewable electricity supplied by CPA. Biomethane is another preferred alternative to fossil natural gas; however, the existing opportunities for widespread use of biomethane are limited. The use of other zero-GHG-emission fuel sources for buildings should will also be considered.

Performance Objectives

The goal of Measure E1 is to decarbonize 25 percent of all existing residential buildings by 2030, 40 percent by 2035, and 80 percent by 2045; to decarbonize 15 percent of all existing nonresidential buildings by 2030, 25 percent by 2035, and 60 percent by 2045; and to require Zero Net Energy (ZNE) for 50 percent of all major renovations by 2030, 75 percent by 2035, and 100 percent by 2045. Measure E1 has several additional performance goals, including adopting building performance standards and reach code(s), requiring all major retrofits and renovations to be electric-ready, adopting a ZNE ordinance, electrify County facilities to the maximum extent feasible, retrofit affordable housing units for efficiency, decarbonization, and resilience, and to ensure low-income households do not experience rent increases as result of first cost.

Modeling Approach

The performance objectives were derived using SCE's Pathway to 2045 Whitepaper electrification targets, as stated in Table 1 of the whitepaper's appendices. Targets are identified for the space and water heating end uses for both residential and commercial buildings. Using data from the 2012 Commercial Buildings Energy Consumption Survey (CBECS) and the 2015 Residential Energy Consumption Survey (RECS), these end use decarbonization targets were adjusted to overall residential and nonresidential natural gas consumption for buildings in the "Mixed-dry/Hot-dry" climate region as defined by the U.S. Energy Information Administration (which includes Los Angeles County).⁵²

The Measure E1 calculations use the activity data (electricity and natural gas) and GHG emissions for existing residential and nonresidential land uses after implementation of Measure ES2 (Procure Zero Carbon Electricity) as a baseline. The baseline year for existing development is assumed to be 2023 because this is the earliest date that the 2045 CAP could be adopted and go into effect. In other words, Measure E1 would apply to the built environment through the end of 2022. Electricity use was used as a proxy for building decarbonization (i.e., it was assumed that decarbonization means switching from fossil natural gas to zero-carbon electricity). Electricity emissions before implementation of Measure E1 were calculated using the same participation rates and emission factors implemented under Measure ES2. To calculate the reduction in natural gas use and increase in electricity use under Measure E1, natural gas use in applicable buildings was converted to electricity use by multiplying the number of therms consumed by the electrification percentage for each building type (residential and nonresidential) for each target year, and then converting the displaced natural gas to electricity using a standard conversion factor of 29.3 kWh per therm.⁵³ GHG emissions after implementation of Measure E1 were then calculated using the same participation rates and emission factors implemented under Measure E1 and subtracted from the post-ES2 emissions to estimate the GHG reductions produced by Measure E1.

Assumptions

- Performance goals are based on SCE's Pathway to 2045 Whitepaper electrification goals for residential and commercial space and water heating, adjusted to average end use profiles for natural gas energy

⁵² For example, the SCE Pathway targets are 36 percent electric commercial space heating and 7 percent electric commercial water heating by 2035; in the Mixed-dry/Hot-dry climate region, space heating represents 35 percent of total commercial natural gas use and water heating represents 31 percent of total commercial natural gas use; the calculation for the total commercial building electrification target is 36 percent * 35 percent + 7 percent * 31 percent = 15 percent.

⁵³ UC Irvine Physics and Astronomy. 2021. Energy Units and Conversions. Available: <https://www.physics.uci.edu/~silverma/units.html>. Accessed November 2021.

consumption in residential and commercial buildings in the “Mixed-dry/Hot-dry” climate region; the 2045 performance goals were further adjusted to help unincorporated Los Angeles County achieve its 2045 emissions reduction target.

- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- Electricity use was used as a proxy for building decarbonization (i.e., decarbonization means switching from fossil natural gas to zero-carbon electricity).
- There is no efficiency loss when converting natural gas to electricity.
- Existing development represents emissions and activity data in 2023.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021
- Southern California Edison, Pathway 2045 Appendices, Table 1
Link: <https://www.edison.com/home/our-perspective/pathway-2045.html>
- U.S. Energy Information Administration, 2012 Commercial Buildings Energy Consumption Survey (CBECS), Table E7
Link: <https://www.eia.gov/consumption/commercial/data/2012/index.php?view=consumption#e1-e11>
- U.S. Energy Information Administration, 2015 Residential Energy Consumption Survey (RECS), Table CE4.5
Link: <https://www.eia.gov/consumption/residential/data/2015/index.php?view=consumption#undefined>
- UC Irvine Physics and Astronomy, Energy Units and Conversions
Link: <https://www.physics.uci.edu/~silverma/units.html>
- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf> (the 2018 document was the latest available at the time the inventories were prepared)

MEASURE E2: DECARBONIZE NEW DEVELOPMENT

Table B-17: Measure E2 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 7,452 |
| 2035 | 12,588 |
| 2045 | 22,639 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

This measure aims to electrify all new buildings.

Performance Objectives

The goal of Measure E2 is to decarbonize all applicable new residential and nonresidential buildings by 2030 and that most new development will be ZNE by 2030. For modeling purposes, the goal is to decarbonize 90 percent of new residential buildings (single-family and multifamily) by 2030, 95 percent by 2035, and 100 percent by 2045; and to electrify 90 percent of new nonresidential buildings (except large industry and food service) by 2030, 95 percent by 2035, and 100 percent by 2045. Measure E2 also has the performance goals that 90 percent of new

residential buildings will be ZNE by 2030, 90 percent of new nonresidential buildings (except large industry) will be ZNE by 2030, and that all new development will be electric-ready.

Modeling Approach

The Measure E2 calculations use Adjusted BAU activity data (electricity and natural gas) and GHG emissions after implementation of Measure ES2 for new residential and nonresidential land uses as a baseline. New residential and nonresidential energy use was calculated by multiplying the new building square footage⁵⁴ by the EUI for each land use type (single-family residential, multifamily residential, commercial, and manufacturing/industrial). GHG emissions for new development were then calculated using the same participation rates and emission factors implemented under Measure ES2. Electricity use was used as a proxy for building decarbonization (i.e., it was assumed that decarbonization means switching from fossil natural gas to zero-carbon electricity). To calculate the reduction in natural gas use and increase in electricity use under Measure E2, natural gas use in applicable buildings was converted to electricity use by multiplying the number of therms consumed by the electrification percentage for each building type (residential and nonresidential) for each target year and then converting the displaced natural gas to electricity using a standard conversion factor of 29.3 kWh per therm.⁵⁵ GHG emissions after implementation of Measure E2 were then calculated using the same participation rates and emission factors implemented under Measure ES2 and subtracted from the post-ES2 emissions to estimate the GHG reductions produced by Measure E2. Electrification of new development starts in 2025 and emissions reductions in each of the target years are calculated as cumulative reductions; for example, total annual GHG emissions reductions in 2030 account for all new building electrification for the years 2025 through 2030.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in Section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- Electricity use was used as a proxy for building decarbonization (i.e., decarbonization means switching from fossil natural gas to zero-carbon electricity).
- There is no efficiency loss when converting natural gas to electricity.
- Decarbonization of new development begins in 2025.
- Annual GHG emissions reductions for each target year (2030, 2035, and 2045) reflect all buildings electrified in all previous years (e.g., all buildings electrified from 2025–2030 contribute to annual emissions reductions in 2030).

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtq4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtq4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021
- UCLA analysis of County of Los Angeles Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies
- UC Irvine Physics and Astronomy, Energy Units and Conversions
Link: <https://www.physics.uci.edu/~silverma/units.html>

⁵⁴ UCLA Institute of Environmental Studies. 2018. Analysis of County of Los Angeles Parcel Assessor's Data.

⁵⁵ UC Irvine Physics and Astronomy. 2021. Energy Units and Conversions. Available: <https://www.physics.uci.edu/~silverma/units.html>. Accessed November 2021.

- Climate Registry
 Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf> (the 2018 document was the latest available at the time the inventories were prepared)

Strategy 6: Improve Energy Efficiency of Existing Buildings

MEASURE E4: IMPROVE ENERGY EFFICIENCY OF EXISTING BUILDINGS

Table B-19: Measure E4 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 22,274 |
| 2035 | 41,255 |
| 2045 | 203,455 |

Abbreviations: GHG = greenhouse gas;
 MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Retrofit existing building stock to reduce overall County energy use.

Performance Objectives

The goal of Measure E4 is to improve the energy efficiency of existing residential and nonresidential buildings by reducing the energy use intensity (EUI) of existing buildings in unincorporated Los Angeles County below 2015 levels as follows: 20 percent for residential, 15 percent for industrial, and 25 percent for commercial by 2030; 25 percent for residential, 25 percent for industrial, and 35 percent for commercial by 2035; and 50 percent for residential, 50 percent for industrial, and 50 percent for commercial by 2045.

Modeling Approach

The Measure E4 calculations use the activity data (electricity and natural gas) and GHG emissions for existing residential and nonresidential land uses after implementation of Measure ES2 (Procure Zero Carbon Electricity) and Measure ES3 (Increase Renewable Energy Production) as a baseline. The baseline year for existing development is assumed to be 2023 because that is the earliest date that the 2045 CAP could be adopted and go into effect. In other words, Measure E4 would apply to the built environment through the end of 2022. This new “baseline” energy use was then multiplied by an assumed eligibility rate (i.e., the portion of buildings eligible for retrofits [based on building vintage, incentives available, income level, etc.]) and then by the participation rate (i.e., the portion of eligible residential and nonessential buildings actually performing a retrofit) to determine the total building energy usage subject to energy retrofits under Measure E4. Electricity and natural gas savings resulting from implementation of Measure E4 were then calculated by multiplying these energy usage values (electricity and natural gas) by the percent improvement in EUI for each target year under Measure E4 implementation. Electricity and natural gas emissions before implementation of Measure E4 were calculated using the same participation rates and emission factors implemented under Measure ES2 and Measure ES3. GHG emissions after implementation of Measure E4 were then calculated using the same participation rates and emission factors implemented under Measure ES2 and Measure ES3 and subtracted from the post-ES3 emissions to estimate the GHG

reductions produced by Measure E4. GHG emissions for natural gas savings were calculated using the emission factors of 0.00531 MTCO₂e per therm for residential and commercial buildings and 0.00532 MTCO₂e per therm for industrial buildings.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- Existing building stock represents the built environment through the year 2023.
- The energy efficiency eligibility rate is 25 percent for both residential and nonresidential buildings in 2030 and 2035 and 50 percent for both residential and nonresidential buildings in 2045.
- The participation rate for eligible buildings is 40 percent in 2030, 60 percent in 2035, and 90 percent in 2045. When applied to the percentage of buildings that are eligible for a retrofit, 10 percent of buildings are retrofitted by 2030, 15 percent of buildings are retrofitted by 2035, and 45 percent of buildings are retrofitted by 2045.
- The reduction in EUI is based on 2015 average County EUI values.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLLogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLLogin.aspx)
- CPA Member Status Report, July 28, 2021
- Climate Registry
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Strategy 7: Conserve Water

MEASURE E6: REDUCE INDOOR AND OUTDOOR WATER CONSUMPTION

Table B-20: Measure E6 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 10,575 |
| 2035 | 15,122 |
| 2045 | 11,764 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Reducing indoor and outdoor water consumption is essential as the state experiences longer and more severe droughts. Not only will water conservation improve regional resiliency, but it will also reduce GHG emissions through the reduction of energy consumption associated with processing, treatment, and the conveyance of water and wastewater.

Performance Objectives

The goal of Measure E6 is to reduce water use to less than 110 gallons per capita per day (GPCD) by 2030, less than 100 GPCD by 2035, and less than 75 GPCD by 2045.

Modeling Approach

Water use and the associated energy use (electricity and natural gas) to distribute and treat water supplied to unincorporated Los Angeles County were estimated for both the Adjusted BAU forecast scenario and the Measure E6 implementation scenario. Metropolitan Water District of Southern California's (MWD's) historical water use was used as a proxy for unincorporated Los Angeles County.⁵⁶ Water use in gallons per capita per day (GPCD) under the Adjusted BAU forecast was projected for each future year using unincorporated Los Angeles County's population and MWD's 2019 per capita water use (121 GPCD), which was then converted to acre-feet per year (AF/yr). Water use associated with the implementation of Measure E9 was estimated using the target GPCD (listed above) and population, which was then converted to AF/yr.

The electricity and natural gas use resulting from each of the water use scenarios (Adjusted BAU and Measure E9 implementation) was estimated for both residential and nonresidential land uses. Energy intensity factors from The Pacific Institute's *The Future of California's Water-Energy-Climate Nexus* report were used to estimate the energy use associated with the treatment, distribution, end-use, and collection of water in the region, as well as the treatment of the resulting wastewater.⁵⁷ Data from the Los Angeles County Waterworks Districts 2020 Urban Water Management Plan were used to get the following regionally specific information, which was then applied to each water use scenario: the ratio of total water demand met by locally pumped groundwater (31 percent), the ratio of total water used that is collected as wastewater (59 percent), the ratio of collected wastewater that goes through secondary treatment (100 percent), and the water used by residential versus nonresidential land uses (76 percent and 24 percent, respectively).^{58,59} Averages were used to estimate the amount of residential water that is heated versus nonresidential water that is heated.^{60,61}

To estimate the GHG reductions associated with Measure E6, GHG emissions associated with following two scenarios were quantified and the difference between the two was taken: implementation of Measures ES2, E1, E2, and ES3 and implementation of Measures ES2, E1, E2, ES3, and E6. In each scenario, water use was assigned to existing or new development using forecasted residential and nonresidential land use percentages. To account for implementation of Measure E1, the appropriate percentage of natural gas use associated with water use in existing development was converted to electricity use. For example, 25 percent of residential natural gas use (therms) associated with water use in existing development was converted to kWh and added to existing residential development's electricity use associated with water. The electricity use resulting from implementation of Measure E1 (electricity use associated with water use in existing residential and nonresidential development) was then multiplied by emission factors which accounted for Measures ES2 and ES3; i.e., the percentage of electricity supplied by solar and the participation rate in each tier of CPA electricity. The natural gas use resulting from implementation of Measure E1 was multiplied by standard emission factors

⁵⁶ Metropolitan Water District of Southern California. 2021. *2020 Urban Water Management Plan*. June 2021. Available: <https://www.mwdh2o.com/media/21641/2020-urban-water-management-plan-june-2021.pdf>. Accessed November 2021.

⁵⁷ The Pacific Institute. 2021. *The Future of California's Water-Energy-Climate Nexus*. September 2021. Available: https://pacinst.org/wp-content/uploads/2021/09/Water-Energy-Report_Sept-2021.pdf. Accessed November 2021.

⁵⁸ Los Angeles County Waterworks Districts. 2021. *2020 Urban Water Management Plans*. October 2021. Available: <https://dpw.lacounty.gov/wwd/web/Publications/WMP.aspx>. Accessed November 2021.

⁵⁹ California Department of Water Resources. 2022. Water Use Efficiency Data Portal. Available: <https://wuedata.water.ca.gov/default.asp>. Accessed November 2021.

⁶⁰ Water Research Foundation. 2016. *Residential End Uses of Water*, Version 2, Executive Report. April 2016. Available: https://www.circleofblue.org/wp-content/uploads/2016/04/WRF_REU2016.pdf. Accessed November 2021.

⁶¹ Yudelson, 2010. Available: <http://greenbuildconsult.com/pdfs/GreenWater.pdf>. Accessed November 2021.

associated with each land use type. To account for implementation of Measure E2, all natural gas use associated with water use in new development was converted to electricity and added to new development’s electricity use associated with water. The combined electricity use resulting from implementation of Measure E2 was then multiplied by emission factors which accounted for Measures ES2 and ES3; i.e., the percentage of electricity supplied by solar and the participation rate in each tier of CPA electricity. Emissions associated with existing development were then summed with emissions associated with new development for each scenario.

Assumptions

- Unincorporated Los Angeles County’s water use profile is equivalent to that of MWD.
- The County falls within the South Coast and South Lahontan water regions, thus energy intensity factors for each region were averaged.
- The County’s water use profile can be represented by Los Angeles County Waterworks Districts data.
- No efficiency losses result from natural gas conversion to electricity (Measure E1).
- 33 percent of residential indoor water use is heated and 22 percent of nonresidential indoor water use is heated.
- CPA and SCE emission factors for electricity are the same as those reported in Section B.1 above.
- CPA participation rates after implementation of Measure ES2.

Sources

- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- MWD 2020 Urban Water Management Plan
Link: <https://www.mwdh2o.com/media/21641/2020-urban-water-management-plan-june-2021.pdf>
- Los Angeles County Waterworks Districts 2020 Urban Water Management Plan
Link: <https://dpw.lacounty.gov/wwd/web/Publications/WMP.aspx>
- Water Use Efficiency Data (WUEdata) Portal
Link: https://wuedata.water.ca.gov/uwmp_export_2020.asp
- Water-Energy-Climate Nexus Report
Link: https://pacinst.org/wp-content/uploads/2021/09/Water-Energy-Report_Sept-2021.pdf
- Residential End Uses of Water Report
Link: https://www.circleofblue.org/wp-content/uploads/2016/04/WRF_REU2016.pdf
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)

Waste

Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream

MEASURE W1: INSTITUTIONALIZE SUSTAINABLE WASTE SYSTEMS AND PRACTICES

Table B-21: Measure W1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 154,514 |
| 2035 | 248,362 |

| | |
|------|---------|
| 2045 | 342,934 |
|------|---------|

Abbreviations: GHG = greenhouse gas;
MTCO_{2e} = metric tons of carbon dioxide equivalent.

Description

Undertake actions that result in sustainable waste systems Countywide. Responsible and sustainable waste practices are learned behaviors, which the County can facilitate through outreach, education, and mandates. Increase diversion of recyclable materials and organics from landfills through ordinances, service improvements, education and outreach, and promotion of product stewardship and markets for material reuse. An increased diversion rate indirectly reduces the demand for virgin materials, which reduces the life-cycle carbon intensity of any resulting products. Through action taken at the County level, waste-conscious habits and thoughtful consumption can become the default.

Performance Objectives

The goal of Measure W1 is to increase the total unincorporated Los Angeles County waste diversion rate to 85 percent by 2030, 90 percent by 2035, and 95 percent by 2045.

Modeling Approach

Target waste disposal in units of tons per capita per year were estimated for each future year using the BAU annual waste generation rate per capita (3.0 tons per person per year in 2030 and 3.1 tons per person per year in 2035 and 2045), the BAU average diversion rates (75 percent for 2030, 2035, and 2045), and the target diversion rates (85 percent in 2030, 90 percent in 2035, and 95 percent in 2045). These target disposal rates were then converted to total reduction in landfilled waste in tons, compared to the BAU landfilled waste tonnages, using forecasted population. A ratio of BAU waste disposal and BAU emissions to targeted waste disposal was then used to estimate the emissions associated with waste disposal once Measure W1 has been implemented. To estimate reductions associated with new development versus existing development, a ratio of incremental population growth to total population in each of the target years was used.

Assumptions

- The BAU solid waste disposal rates are 3.0 tons per person per year in 2030 and 3.1 tons per person per year in 2035 and 2045.
- The BAU solid waste diversion rate is 75 percent in 2030, 2035, and 2045.
- Solid waste diversion rate and organics diversion rate are assumed to remain constant at 75 percent and 38 percent, respectively.
- For each ton of solid waste not placed in a landfill, 0.44 MTCO_{2e} is saved (based on the Adjusted BAU forecast for the waste sector; see Appendix A).

Sources

- CARB FOD Model
Link: <https://ww2.arb.ca.gov/resources/documents/landfill-methane-emissions-tool>
- CalRecycle SWIS Reports
Link: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>
- LADPW SWIMS Reports
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>
- CalRecycle Landfill Gas Master
Link: <https://www2.calrecycle.ca.gov/PublicNotices/Documents/1642>

- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>

Agriculture, Forestry, and Other Land Use

Strategy 9: Conserve and Connect Wildlands and Working Lands

MEASURE A1: CONSERVE FORESTS, WOODLANDS, SHRUBLANDS, GRASSLANDS, DESERT, AND OTHER CARBON-SEQUESTERING WILDLANDS AND WORKING LANDS

Table B-22: Measure A1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 8,953 |
| 2035 | 17,906 |
| 2045 | 26,858 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County.

Performance Objectives

The goal of Measure A1 is to reduce the amount of natural land converted for urban uses 25 percent below current (2018) levels by 2030, 50 percent by 2035, and 75 percent by 2045; this is equivalent to conserving natural lands that would have otherwise been converted for urbanized uses by 53 hectares annually by 2030, 106 hectares annually by 2035, and 159 hectares annually by 2045.

Modeling Approach

The Adjusted BAU forecast assumes that 212 hectares of forest land are converted to a new land use each year, which releases carbon stored in the removed biomass. GHG emissions reductions from Measure A1 were calculated by decreasing the amount of forest land conversion in each future year and multiplying by an emission factor for land conversion. For each hectare of natural land converted to other uses, a one-time emission of 169 MTCO₂e per hectare would occur (see Appendix A for discussion).⁶² The number of hectares saved from conversion under Measure A1 for each future year was multiplied by the one-time emission rate of 169 MTCO₂e to calculate GHG emissions reductions for this measure.

Assumptions

- 212 hectares of natural land is converted annually in the Adjusted BAU forecast.
- For each hectare of natural land saved from conversion, avoided emissions would be 169 MTCO₂e.

⁶² NASS. 2021. CropScape. Available: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

References

- NASS, 2021. CropScape.
Link: <https://nassgeodata.gmu.edu/CropScape/>

Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

MEASURE A3: EXPAND UNINCORPORATED LOS ANGELES COUNTY’S TREE CANOPY AND GREEN SPACES

Table B-23: Measure A3 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 4,602 |
| 2035 | 7,080 |
| 2045 | 10,310 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Create an Urban Forest Management Plan to plant trees, increase unincorporated Los Angeles County’s tree canopy cover, add green space, and convert impervious surfaces.

Performance Objectives

The goal of Measure A3 is to plant 130,000 total new trees by 2030, plant 200,000 total new trees by 2035, and plant 270,000 total new trees by 2045.

Modeling Approach

The performance goals for Measure A3 were developed using the following steps:

1. Unincorporated Los Angeles County’s current urban tree canopy cover is estimated to be 10.7 percent based on the Tree People 2016 LA Tree Canopy Report. Estimates by land use type are 13 percent residential, 9 percent commercial, 4 percent industrial, and 10 percent for public/semi-public, mixed use, specific plan, and other land use types.
2. The current urban area estimate is 158,889 acres from Table 6.1 of the General Plan Land Use Element for the categories above.
3. Applying the canopy cover of 10.7 percent to the total urban area acreage yields 16,943 acres of tree canopy.
4. The goal is to increase urban tree canopy cover 10 percent by 2030, 15 percent by 2035, and 20 percent by 2045. This yields an additional 1,694 new acres of tree canopy coverage by 2030, 2,542 acres by 2035, and 3,389 acres by 2045.
5. According to a 2015 study, one acre of tree canopy coverage has approximately 80.5 trees.
6. This yields 136,394 total new trees planted by 2030, 204,591 total new trees planted by 2035, and 272,788 total new trees planted by 2045 (rounded to the nearest 10,000).

Measure A3 GHG emissions reductions were calculated using assumptions from CalEEMod.⁶³ The calculations assume a carbon sequestration rate per tree planted (from CalEEMod) and an active growing period of 20 years for each tree, after which the tree no longer stores additional carbon. The calculation also assumes a total number of trees planted for each target year, based on the performance objectives above. The number of trees planted each year was then multiplied by the growing period and sequestration rate to estimate the overall GHG reductions from Measure A3 for each target year.

Assumptions

- Tree growing period of 20 years.
- The carbon sequestration rate remains constant for each year for each tree planted.
- The carbon sequestration rate is the average rate for all species classes included in CalEEMod.

References

- California Air Pollution Control Officers Association, CalEEMod v2020.4.0 User's Guide, Appendix A Calculation Details
Link: <http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6>
- Tree People, Los Angeles County Tree Canopy Assessment
Link: <https://www.treepeople.org/wp-content/uploads/2020/08/Tree-Canopy-LA-2016-Final-Report.pdf>
- Lund, H. G., 2015, Canopy Cover, Trees per Acre, Crown Width, and Tree Spacing
Link: https://www.researchgate.net/publication/288335361_Canopy_Cover_Trees_per_Acre_Crown_Width_and_Tree_Spacing

⁶³ California Air Pollution Control Officers Association. 2021. *CalEEMod v 2020.4.0 User's Guide*, Appendix A Calculation Details. May 2021. Available: <http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6>. Accessed November 2021.

B.3 Attachment A: Fehr & Peers Modeling Analysis

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APPENDIX C

Prior and Current County of Los Angeles Actions on Climate Change

Purpose

This appendix describes past and current County of Los Angeles (County) actions to address climate change and reduce greenhouse gas (GHG) emissions. The appendix is organized in two sections as discussed below.

Los Angeles County Community Climate Action Plan 2020

This section describes the 2020 Los Angeles County Community Climate Action Plan (2020 CCAP), the County's first community climate action plan, adopted in 2015. It presents the 26 local actions for GHG emissions reduction and the progress that has been made by the County on each action.

OurCounty Sustainability Plan

This section describes the OurCounty Sustainability plan, adopted in 2019. It lists the key OurCounty actions that pertain to GHG emissions reductions and have linkages to the 2045 CAP strategies, measures, and actions.

C.1 Los Angeles County Community Climate Action Plan 2020

The County adopted the 2020 CCAP as a component of the Air Quality Element of the General Plan in 2015. The 2020 CCAP aligned with General Plan goals, policies, and programs and several other existing programs in Los Angeles County. It identified emissions related to community activities, established a 2020 GHG emissions reduction target consistent with Assembly Bill (AB) 32, and established 26 local actions for GHG emissions reduction. The 2020 CCAP was the first attempt to set Countywide GHG emissions reduction goals, providing a road map for implementing the County GHG emissions reduction measures. The 2020 CCAP addressed emissions from land use, transportation, building energy, water consumption, and waste generation.

The actions outlined in the 2020 CCAP, along with additional climate-related efforts, reflect the County's existing commitment to reducing GHG emissions. The 2020 CCAP actions were implemented through ordinance amendments to the County Code and implementation of various energy, land use, transportation, water conservation, and waste reduction programs. The *2045 Los Angeles County Climate Action Plan (2045 CAP)* builds on previous work and defines new reduction targets beyond the year 2020 for 2030, 2035, and 2045, and identifies a long-term aspirational target for carbon neutrality by 2045. The County's accomplishments and ongoing initiatives (as of 2022) are listed below.

LUT-1: Bicycle Programs and Supporting Facilities (Ongoing)

Since approval of the Bicycle Master Plan in 2012, the County has applied for and received grants to implement the plan's proposed bikeway network. In 2018, the County was awarded a total of \$10,164,054 in grant funding for bikeways, pedestrian improvements (sidewalks, curb ramps, high-visibility crosswalks, and wayfinding signage), and transit improvements (bus stop amenities) from the Affordable Housing and Sustainable Communities Program for projects in the unincorporated communities of Willowbrook, East Los Angeles, and Florence-Firestone. In 2019 and 2020, the County was awarded a total of \$9,065,260 in grant funding from the Measure M Multiyear Sub-Regional Program for projects in the unincorporated communities of Lake Los Angeles, Val Verde, Bouquet Canyon, Canyon Country, White Fence Farms, and Topanga Canyon. Throughout the unincorporated areas of Los Angeles County (Unincorporated Los Angeles County), 64 miles of bikeways were created between 2012 and 2021, with 3.65 miles in progress. An additional 36 miles of bikeway are planned to be completed by 2025, with 18 miles scheduled to be completed thereafter. In total, 122 miles of bikeway have been constructed or planned as part of unincorporated Los Angeles County's bikeway network. The Bicycle Master Plan is being updated to revise the list of bikeways—removing infeasible locations and identifying new locations, developing design guidelines for Class IV bikeways, developing policies and guidelines for bikeway infrastructure that could be shared with micro-mobility devices, and improving first-/last-mile bikeway connections to transit stops. The update is anticipated to be completed in 2024.

LUT-2: Pedestrian Network (Ongoing)

During calendar years 2019, 2020, and 2021, the County Department of Public Works' (PW's) road construction program completed 85,100, 101,700, and 10,754 linear feet, respectively, of

new and reconstructed sidewalks. Additionally, 60,000 square feet of sidewalk was repaired in 2021. In 2019, the County also adopted Step by Step Los Angeles County, a sub-element to the General Plan Mobility Element that included Countywide pedestrian policies, programs, and procedures, as well as community pedestrian plans for the four unincorporated communities of Lake Los Angeles, Walnut Park, Westmont/West Athens, and West Whittier–Los Nietos.

LUT-3: Transit Expansion (Ongoing)

Through the 2020 CCAP, the County has committed to working with the Los Angeles County Metropolitan Transportation Authority (Metro) on a transit program that prioritizes public transit by creating bus priority lanes, improving transit facilities, reducing transit-passenger time, and providing bicycle parking near transit stations. Future efforts will include exploring programs to offer discounted transit passes, constructing infrastructure to increase bicyclist and pedestrian access to transit stations, and implementing “first mile–last mile” strategies.

The County has been supporting Metro as a stakeholder during its development of the Pilot Congestion Pricing Study, the goal of which is to improve traffic congestion along certain roadways. A major component of this effort is providing additional opportunities for and upgrading the public transit system as an alternative to personal vehicular travel.

LUT-6: Land Use Design and Density (Ongoing)

As of 2021, the County has adopted Transit Oriented District (TOD) plans for three unincorporated area communities: Willowbrook, West Carson, and West Athens–Westmont. The County is awaiting final approval for a fourth TOD in Florence-Firestone. In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that include but are not limited to the Rezoning Program, Residential Parking Program, Rent Stabilization Ordinance, and Affordable Housing and Sustainable Communities Program. The Department of Regional Planning (DRP) is currently working on a study to inform the update to parking standards for multi-family residential development, with the goals of reducing barriers to investments in multi-family housing production, reducing the overall cost of housing, and helping to lower vehicle miles traveled. After the conclusion of the study, recommendations will be finalized and an ordinance will be prepared to amend the zoning code. Public hearings on the ordinance are anticipated in 2023.

In March 2016, the Board of Supervisors instructed DRP to amend Title 22, the Planning and Zoning Code, to ensure that oil and gas facilities may no longer operate by right in unincorporated Los Angeles County, and that the regulations reflect best practices and current mitigation methods and technologies, minimize environmental impacts, and protect sensitive uses and populations. In September 2021, the Board of Supervisors voted to phase out oil and gas drilling and ban all new drill sites in unincorporated Los Angeles County areas. The phase-out would close more than 1,600 active and idle oil and gas wells in unincorporated Los Angeles County. On January 24, 2023, the Board of Supervisors adopted the Oil Well Ordinance, which became effective after 30 days. The County is conducting an amortization study to determine the phase-out timeline for all existing oil wells and production facilities.

LUT-7: Transportation Signal Synchronization Program (Ongoing)

The Board of Supervisors instituted the Countywide Traffic Signal Synchronization Program (TSSP) in 1988. This ongoing program involves upgrading traffic signal infrastructure and timing to allow for signal synchronization, implementation of pedestrian and bicycle improvements, and improved transit operations through more consistent travel times. TSSP projects completed between 2011 and 2020 generated estimated annual savings of 6.45 million gallons of gasoline and 338,000 gallons of diesel fuel. In addition, these projects are preventing the release of more than 985 tons of pollutants into the atmosphere as a result of reduced travel times and less stopping at red lights. An additional 17 TSSP projects are about to begin construction.

LUT-8: Electric Vehicle Infrastructure

Under Executive Orders B-48-18 and N-79-20, the State of California has set ambitious targets for electric vehicle (EV) infrastructure and deployment. Statewide goals include achieving registration of five million ZEVs in the state by 2030 and 250,000 EV supply equipment (EVSE) by 2025 to support the growth of EVs. In support of these targets, California is funneling hundreds of millions of dollars toward expanding EV charging stations and other zero-emission vehicle infrastructure.

The County has deployed approximately 350 EV charging ports across its facilities to support the electrification of the County fleet and to increase EVSE access to employees and the public. County Internal Services Department (ISD) received a grant from the California Energy Commission to support a regional EV infrastructure planning effort as a follow-up to a report on EV chargeback for County facilities and an EV needs assessment.

The County's EV Infrastructure Ordinance was adopted on September 6, 2016. This ordinance amended the zoning and building codes to provide an expedited and streamlined permitting process, and to develop an application and procedural framework for EV charging infrastructure, as mandated under Assembly Bill (AB) 1236 (2015). In addition, as part of the 2020 CCAP Implementation Ordinance, DRP amended Title 22 to ensure compatibility with EV infrastructure. The 2020 CCAP Implementation Ordinance was adopted on June 6, 2018.

In 2021, the County installed 315 new PowerFlex-networked charging stations with advanced managed charging capability; launched a collaboration with the California Conservation Corps and Cerritos College to train members on EV charging infrastructure through a \$300,000 grant for the Los Angeles Department of Water and Power; submitted 55 applications with Southern California Edison's Charge Ready II program for multiple departments; launched EVConnect, a mapping tool to identify EV charging opportunities; and launched a EV charging user dashboard via PowerBI. Also in 2021, the Board of Supervisors adopted a revised fleet policy that requires the purchase of zero emission vehicles when replacing all County vehicles, to the extent that such vehicles are available and meet operational needs.

LUT-9: Idling Reduction Goal

The Idling Reduction Ordinance amended the zoning code to require signs in on-site loading areas to encourage the reduction of vehicle idling. This ordinance was adopted on June 6, 2018.

LUT-11: Sustainable Pavements Program (Ongoing)

In 2008, PW began to implement a three-pronged sustainable pavement treatment approach to maintain roads by incorporating principles that (1) take care of roads that are in good condition; (2) use recycled materials in the selection of treatments; and (3) reutilize existing materials in place to rehabilitate or reconstruct roads. The environmental footprint and cost of repairing roads using this new approach is much lower than traditional hot mix approaches. Through this program, PW has achieved an 80 percent reduction in energy usage (136 million kilowatt-hours [kWh]) and a 84 percent reduction in GHG emissions (39,100 metric tons carbon dioxide equivalent) and has saved approximately \$69.4 million.

In addition, as part of the CCAP Implementation Ordinance, adopted on June 6, 2018, DRP amended the zoning code to allow the use of "cool pavement." In November 2019, PW completed the construction of the cool-pavement pilot project and partnered with a local research educational institution that will collect data on the performance of the cool-pavement materials. PW will continue to monitor the performance of these materials and the temperature impacts on the surrounding community.

BE-1: Green Building Development

On November 26, 2019, the Board of Supervisors formally adopted the 2020 County Green Building Standards (CALGreen) Code for the new code cycle, which came into effect on January 1, 2020. This incorporates the changes from the 2019 CALGreen building code, as well as local County amendments.

PW has also adopted a Cool Roof Ordinance to amend Title 31 to mandate the installation of Tier 2-level cool roofing materials for all projects in which it has been proven to be cost effective. The ordinance was approved by the Board of Supervisors on October 16, 2018; was approved through the California Energy Commission's review process on March 12, 2019; and went into effect on May 7, 2019. In addition, as part of the 2020 CCAP Implementation Ordinance, DRP amended the zoning code to allow the use of "cool roof materials." In February 2022, the Board of Supervisors passed a motion to study the feasibility of establishing Zero Net Energy standards for major development projects and other large-scale development. In March 2022, the Board of Supervisors passed a motion to ensure the equitable decarbonization of buildings by conducting a stakeholder engagement process, studying energy resource and infrastructure needs, and seeking funding. The motion also directs PW, the Chief Sustainability Office (CSO), DRP, and other County departments to provide recommendations for an ordinance or building code changes that would phase out the use of natural gas equipment and appliances in all new residential and commercial construction and substantial renovations, where feasible, starting in 2023.

ISD is also responsible for decommissioning the Pitchess Cogeneration Station in Saugus and the Olive View Medical Center Cogeneration Station in Sylmar, both of which are significant stationary sources of emissions (via natural gas combustion).

BE-2: Energy Efficiency Programs (Ongoing)

ISD manages a portfolio of energy efficiency programs that support communities, local governments, commercial businesses, and residential and multi-family property owners. Through

annual funding provided by the California Public Utilities Commission (CPUC), ISD also administers the Southern California Regional Energy Network (SoCalREN), which supports energy efficiency programs. ISD has secured approximately \$120 million in aggregate funding from the CPUC on an annual basis since 2012, and in May 2018 was approved for \$173.5 million in additional funding over the next eight years, based on the progress of the program. By the end of 2017, the program served 1,857 single-family homes and 7,330 multi-family units and supported whole-building retrofits at public agencies in the region, resulting in more than 42.5 million kWh of electricity savings, and 80,417 therms of natural gas savings.

In 2021, SoCalREN was able to achieve more than 16 million kWh of electricity savings and more than 280,000 therms of natural gas savings. Based on the success of the County's management of SoCalREN, the CPUC approved a 14 percent funding increase over the next two years to a total two-year budget of \$49 million. ISD further successfully worked with the California Department of Food and Agriculture under a Healthy Stores and Refrigeration grant to deploy energy-efficient refrigerators at more than 80 small markets to increase the availability of fresh produce and vegetables in disadvantaged communities, and is well positioned for additional grant funding from this program when a new funding is released.

BE-3: Solar Installations

DRP amended the zoning code to support and facilitate responsible development of small-scale systems and utility-scale facilities in a manner that helps California meet its goals for renewable energy generation and GHG emissions reduction, while minimizing environmental and community impacts. The Renewable Energy Ordinance was adopted by the Board of Supervisors on December 13, 2016, and went into effect January 12, 2017. ISD has installed more than 4.5 megawatts (MW) of solar photovoltaic panels at County facilities and has plans to install an additional 20 MW over the next 5–10 years.

BE-4: Alternative Renewable Energy Programs (Ongoing)

In 2017, the Board of Supervisors approved the creation of a joint powers authority to implement a community choice energy program for Los Angeles County. That program, known as the Clean Power Alliance (CPA), began operating in 2018 and now serves 32 jurisdictions across Los Angeles and Ventura counties, representing 3 million residents.

The CPA offers three tiers of electric service: Lean Energy at 36 percent renewable, Clean Energy at 50 percent renewable, and 100 percent Renewable. Residents and enrolled businesses in unincorporated Los Angeles County are receiving 50 percent renewable energy, plus an additional 20 percent of GHG-free power from hydroelectric sources.

Since October 2022, customers in unincorporated Los Angeles County are receiving 100% renewable energy – wind, solar, geothermal – from CPA, compared to the 50% clean energy previously received. And most of the renewable energy is produced in California.

BE-6: Encourage Energy Efficiency Retrofits of Wastewater Equipment

The County will continue to implement energy efficiency for new or rehabilitated sewer facilities where operationally feasible.

BE-7: Landfill Biogas (Ongoing)

Landfills in the unincorporated areas reported a total installed (rated) capacity of 96 MW for 2019 and 2020. These landfill gas-to-energy installations include Ameresco Chiquita Energy, Puente Hills Energy Recovery, Calabasas Gas-to-Energy, and Sunshine Gas Producers Renewable Energy Project.

WAW-1: Per Capita Water Use Reduction Goal (Ongoing)

The County continues to hold free Smart Gardening Program public workshops on topics such as composting, water-wise gardening, and organic gardening. In 2018, PW held 95 workshops and participated in 25 community events. More than 2,000 residents attended the workshops, and 600 backyard compost bins and 490 worm compost bins were sold to residents. In 2019, the County conducted 117 Countywide Smart Gardening workshops attended by 2,951 residents. The workshops taught backyard/worm composting, and 730 backyard compost bins and 659 worm bins were sold to residents at a discount. In 2020, the County conducted 14 Smart Gardening workshops with 399 attendees. The County suspended the in-person workshops in March due to the COVID-19 pandemic and switched to webinars. The County conducted 67 Smart Gardening webinars with 2,460 attendees. Composting was the primary theme of the workshops and webinars, where 361 backyard compost bins and 293 worm bins were sold to residents at a discount. In 2021, the County held 134 smart gardening webinars with more than 6,000 attendees and sold 374 backyard compost bins and 479 worm compost bins to residents.

The County allocated \$300,000 for the Waterworks Districts' Water Customer Rebate program in Fiscal Year (FY) 2016–2017. In FY 2018–2019, the Cash for Grass Rebate entailed 40 application pre-approvals, totaling \$49,000 paid. The high-efficiency appliance/device rebates provided \$3,900 in rebates. The County allocated \$300,000 for in FY 2020–2021. The Cash for Grass Rebate program through FY 2020–2021 had 26 application pre-approvals totaling \$58,000.

WAW-2: Recycled Water Use, Water Supply Improvement Programs, and Stormwater Runoff (Ongoing)

The passage of Measure W in November 2018 created the County's Safe Clean Water Program. The Safe Clean Water Program's goals include improving and protecting water quality; capturing rain and stormwater to increase safe drinking water supplies and preparing for future droughts; and protecting public health and marine life by reducing pollution, trash, toxins, and plastics entering Los Angeles County waterways, bays, and beaches.

The program generates about \$285 million annually through a special parcel tax of 2.5 cents per square foot for impermeable surface area (about \$83 per year for the average County household). This includes paved and developed areas where rainfall cannot be absorbed into the ground and instead runs off as stormwater into the flood control district system.

PW is implementing stormwater improvement projects with six projects completed or nearing construction completion in 2022 (per the OurCounty 2022 Annual Report published in December 2022). These stormwater improvement projects will assist in recharging local aquifers, preventing pollution from entering water bodies, and using stormwater runoff for local irrigation.

SW-1: Waste Diversion Goal (Ongoing)

The Conversion Technology Program established numerical milestones to measure implementation progress in the unincorporated Los Angeles County. The program aims to increase the current in-County capacity from 65 tons per day (tpd) to 3,000 tpd by 2035. The County is developing multiple waste diversion projects and is on track to achieve the next milestone of 500 tpd of in-County waste conversion capacity by 2025.

PW prepared draft revisions to an existing ordinance to increase the construction and demolition debris recycling requirement from 50 to 70 percent for projects in the unincorporated areas. Stakeholder outreach meetings were held in November 2020 and June 2021. The ordinance update is expected to be completed in 2023. In November 2010, the Board adopted an ordinance that prohibits the distribution of single-use plastic carryout bags at certain stores in unincorporated Los Angeles County and requires the stores to charge 10 cents for each paper or alternative bag provided to a customer.

The County's "Plastic Straws and Stirrers Upon Request" ordinance prohibits all food service businesses in unincorporated Los Angeles County from providing single-use plastic straws or stirrers to customers unless requested by the customer. In October 2019, the Board of Supervisors passed a motion directing CSO to contract with the UCLA Luskin Center for Innovation to study the issues of plastic waste, processing and recyclability of plastic materials, and potential disposal and recycling alternatives in unincorporated Los Angeles County. PW also developed the Bring Your Own (BYO) campaigns to encourage the use of reusable items, such as plates, cups, utensils, and bags, and increase awareness of the environmental impacts of single-use items. In April 2022, the Board of Supervisors passed a follow-up ordinance that phases out single-use plastics for food service ware in unincorporated Los Angeles County in favor of reusable, recyclable, or compostable options.

In 2018, PW launched the Food Donation Recovery and Outreach Program, or "Food DROP," to facilitate the recovery of edible food to feed those in need instead of being disposed. As of 2022, there were four landfill gas-to-energy facilities in unincorporated Los Angeles County, with a total installed (rated) renewable energy generation capacity of 96 MW.

LC-1: Develop Urban Forests (Ongoing)

The County adopted the Tree Planting Ordinance in 2016, amending Title 21 (Subdivisions) and Title 22 (Planning and Zoning) of the County Code to establish new tree planting requirements for projects to provide environmental benefits. That ordinance was repealed and can now be found in Title 31 (Green Building Standards) of the County Code.

The Tree Committee of the County's Healthy Design Workgroup coordinates interdepartmental efforts to preserve, maintain, and expand the unincorporated Los Angeles County's urban forest in low income, tree-poor neighborhoods. In 2018, County departments collaborated with community-based organizations to complete a youth-led tree planting and education campaign, resulting in more than 1,600 trees planted in low-tree-canopy, disadvantaged areas of the San Gabriel Valley; the project resulted in approximately 100 youth trained on life skills, job skills, and tree benefits, planting, and care. In addition, more than 1,500 households received education about the benefits of trees.

In 2019, County departments led a second tree planting and community education project, this time in unincorporated West Athens. By completion, the West Athens tree planting and education project will have resulted in 650 trees planted. Additionally, during 2018–2019, PW planted more than 4,000 new parkway trees.

The County secured \$1.5 million in funding from the state in 2021 to develop an urban forest management plan and is in the process of creating the plan.

LC-2: Create New Vegetated Open Space (Ongoing)

DRP amended the zoning code to allow selected accessory uses within utility easements, such as parks, open space, and limited agricultural uses, with development standards and streamlined review procedures. This was adopted as part of the CCAP Implementation Ordinances on June 6, 2018.

In 2022, DPR completed the Regional and Rural Edition of the Countywide Parks Needs Assessment, which focuses on regional recreation needs and the park needs of rural communities, and identifies areas, including open space and natural areas, that should be prioritized for conservation in the future.

LC-3: Promote the Sale of Locally Grown Foods and/or Products

DRP amended the zoning code to implement the state law AB 551, the Urban Agriculture Incentive Zones Act. This ordinance provides procedures to incentivize growing local foods on private property and was adopted by the Board of Supervisors in April 2016.

LC-4: Protect Conservation Areas

DRP amended the zoning code to update the County's Significant Ecological Areas Ordinance. The update guides development to areas that would create the least impact on environmental resources on private properties. It also contains requirements for conservation where resources are affected. This ordinance was adopted by the Board of Supervisors in December 2019. In 2018, DRP amended the zoning code to allow selected accessory uses within utility easements, such as parks, open space, and limited agricultural uses, with development standards and streamlined review procedures.

C.2 OurCounty Sustainability Plan

OurCounty outlines a long-term vision for implementing sustainable actions that improve equity, the environment, and the economy across Los Angeles County. With the adoption of OurCounty in August 2019, more than 60 priority actions are being implemented by various County departments. County departments regularly engage with partners and stakeholders to prioritize implementation and add new actions in a process that ensures accountability and progress. Although all sustainability goals, strategies and actions in OurCounty are considered important, they are all in varying stages of the planning and implementation process. The OurCounty 2022 Annual Report published in Fall 2022 provides an update on priority actions implemented in the previous year and helps inform prioritization of actions for 2023, including a call for action on low-cost, high-impact strategies for local climate action supported by community organizations.

This section lists the strategies and actions from OurCounty that align most closely with the 2045 CAP strategies, as identified in Chapter 3. Many of these are also priority actions currently being implemented and monitored through the CSO's Annual Report, focused on equitable and sustainable land use and development, thriving ecosystems and biodiversity, and a transition to zero-emission energy and transportation systems.

Strategy 2B: Require sustainable and healthy building design and construction.

- **Action 32:** Pilot high performance building standards for new County buildings beyond the current LEED Gold standard, such as Passive House, Zero Net Energy, Net Zero Water, Net Zero Waste, the Living Building Challenge and the WELL Building Standard.
- **Action 33:** Use climate projections instead of historic data for weather and precipitation modeling to inform planning, infrastructure, and community development processes.

Strategy 2D: Ensure a climate-appropriate, healthy urban tree canopy that is equitably distributed.

- **Action 43:** Create and implement a community-informed Urban Forest Management Plan that incorporates equitable urban forest practices, identifies County funding sources, and prioritizes:
 - Tree- and park-poor communities;
 - Climate and watershed-appropriate and drought/pest-resistant vegetation;
 - Appropriate watering, maintenance, and disposal practices;
 - Shading; and
 - Biodiversity.
- **Action 44:** Implement locally tailored, youth-based tree and vegetation planting and maintenance projects in collaboration with community-based organizations to reduce the impacts of heat island in low canopy areas.
- **Action 45:** Strengthen tree protections of native tree species, such as through development of an ordinance, based on findings from the Urban Forest Management Plan (UFMP).

Strategy 3A: Increase housing density and limit urban sprawl.

- **Action 46:** Develop land use tools that will facilitate increased production of various housing types such as duplex and triplex buildings, where appropriate.
- **Action 47:** Support the preservation of agricultural and working lands, including rangelands, by limiting the conversion of these lands to residential or other uses through tools such as the creation of agricultural easements, particularly within high climate-hazard areas and Significant Ecological Areas (SEAs).
- **Action 48:** Evaluate the feasibility of establishing a County brownfields program.

Strategy 3B: Implement transit-oriented development.

- **Action 49:** Expand the number and extent of transit-oriented communities while ensuring that vital public amenities such as parks and active transportation infrastructure are included.
- **Action 50:** Create an inventory of all publicly-owned land and facilities (belonging to the County and other jurisdictions) near existing and future public transit and identify opportunities for transit-oriented development.
- **Action 51:** Create guidance language for joint development opportunities on County-owned land, drawing upon Metro's Joint Development Program, Policies, and Process and actively seek opportunities for joint development that improves transit access.

Strategy 3C: Promote walkable, mixed-use neighborhoods.

- **Action 52:** Promote walkability through various tools, including zoning that enables a mix of uses, and pedestrian enhancements.
- **Action 53:** Develop equitable design guidelines that promote high quality living environments for all.

Strategy 5A: Increase ecosystem function, habitat quality, and connectivity, and prevent the loss of native biodiversity in the region.

- **Action 66:** Create a Countywide Biodiversity Index to generate a quantitative evaluation/assessment tool for measuring species richness, distribution, and threats to native biodiversity, and use the index to set targets to preserve biodiversity and inform the development of biodiversity strategies.
- **Action 67:** Develop a wildlife connectivity ordinance.
- **Action 68:** Establish comprehensive and coordinated management guidelines for local waterways, which balance priorities such as water management, flood risk mitigation, habitat, biodiversity, and community preference.
- **Action 69:** Make urban ecology a key consideration in municipal initiatives, including but not limited to open space plans, green infrastructure projects and development plans.
- **Action 70:** Increase coordination amongst and expand training of County and affiliated personnel with regards to promoting native and climate-resilient species selection, biodiversity, habitat quality, and connectivity.
- **Action 71:** Increase the number of native plants, trees, and pollinator/bird friendly landscapes on public properties for education and habitat connectivity.

Strategy 5B: Preserve and enhance open space, waterways, and priority ecological areas.

- **Action 72:** Develop a Countywide parks and open space master plan to acquire, preserve, restore, and protect available open space areas, and improve public access to open space, especially for residents in high park need areas.

- **Action 73:** Develop and implement a strategy to preserve and protect priority ecological sites, supporting sites, and priority species (including but not limited to significant ecological areas, habitat connections, terrestrial streams, wetlands, and aquatic habitats).

Strategy 7A: Transition to a zero-carbon energy system that reduces air and climate pollution and that minimizes the dangers of a changing climate to our communities and economy.

- **Action 84:** Collaborate with the City of Los Angeles and other cities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.
- **Action 85:** Collaborate with the City of Los Angeles, Santa Monica, and other members of the Building Decarbonization Coalition to develop building energy and emissions performance standards that put the County on a path towards building decarbonization.
- **Action 86:** Develop a publicly-accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids in order to improve energy resiliency in disadvantaged communities.
- **Action 87:** Investigate low- or no-cost options to provide community shared solar facilities on County property.
- **Action 88:** Maximize the installation of solar and energy storage systems on County property whenever cost-effective.
- **Action 89:** Support development of an equitable investment plan that identifies needed improvements to electricity and natural gas transmission, distribution, and storage systems and supports local renewable energy resources.
- **Action 90:** Develop and implement a strategy to eliminate fossil fuels in County operated co-generation facilities.

Strategy 7B: Create a zero-emission transportation system.

- **Action 91:** Streamline permitting and construction of zero-emission vehicle infrastructure.
- **Action 92:** Install electric vehicle (EV) chargers at County facilities and properties for public, employee, and fleet use, prioritizing locations in disadvantaged communities.
- **Action 93:** Revise and regularly update the County's fleet policy to require zero-emission vehicles or better whenever available and operationally feasible.
- **Action 94:** Convert Sheriff's Department (LASD) fleet to zero emission by partnering with vehicle manufacturers to develop a zero emission pursuit vehicle and transport bus.
- **Action 95:** Partner with Los Angeles Fire Department (LAFD) and equipment manufacturers to pilot a zero emission fire engine.

Strategy 8A: Reduce vehicle miles traveled (VMT) by prioritizing alternatives to single-occupancy vehicles.

- **Action 96:** Partner with local jurisdictions and transit agencies such as the City of Los Angeles and Metro to develop and implement a "Transit First" policy and mobility advocacy campaign that is consistent with and supportive of the County's Vision Zero Plan.

- **Action 97:** Support Metro's efforts to study congestion pricing and amplify considerations of equity.
- **Action 98:** Install bus-only lanes and signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate.
- **Action 99:** Develop and implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within half a mile of high quality transit stops, creation and expansion of parking benefit districts, and incentives for developers to provide less than maximum allowable parking.
- **Action 100:** Offer free transit passes for students, youth, seniors, disabled, and low-income populations.
- **Action 101:** Develop and implement a transportation demand management (TDM) ordinance that requires developers to incorporate measures such as subsidized transit passes and car share.
- **Action 102:** Develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit and advance OurCounty goals.
- **Action 103:** Evaluate and implement demand-based priced parking at County facilities and on County streets where appropriate.
- **Action 104:** Pilot an alternative work site program for County employees.

Strategy 9A: Reduce waste generation.

- **Action 107:** In collaboration with the City of Los Angeles, develop and implement an equitable strategy to phase out single use plastics, including in County contracts and facilities.
- **Action 108:** Adopt and advocate for producer and manufacturer responsibility requirements.
- **Action 109:** Identify and implement, where appropriate, best practice waste pricing programs to reduce waste generation, including but not limited to differential prices for waste based on amount generated in the residential sector and reforms to tipping rate structures.
- **Action 110:** Conduct regular Waste Characterization Studies for sectors and sub-sectors and public space, including County facilities, to gather data on actual waste generation, composition, and recycling rates.
- **Action 111:** Pursue zero waste certification requirements at County facilities and develop incentives for businesses to achieve zero waste certification (e.g., TR UE Zero Waste).
- **Action 112:** Expand use of sustainable pavement methods and materials on County roadways.

Strategy 9B: Implement strong water conservation measures.

- **Action 113:** Develop a County-specific implementation plan for state water conservation targets that balances water supply goals with other critical OurCounty goals such as supporting conservation and expanding the urban forest.
- **Action 114:** Develop a Net Zero Water Ordinance for new development.
- **Action 115:** Adopt building code changes that improve water efficiency and reduce indoor and outdoor water use above current CALGreen standards.
- **Action 116:** Establish pilot programs for smart metering or sub-metering indoor and outdoor water use at County facilities.

Strategy 9C: Reduce building energy consumption.

- **Action 117:** Adopt an energy and water efficiency ordinance for existing buildings, requiring all privately owned buildings over 20,000 square feet to benchmark and report their energy and water use, and demonstrate their pathway to energy and water efficiency.
- **Action 118:** Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN).
- **Action 119:** Ensure that all County facilities over 25,000 square feet report their energy and water use to ENERGY STAR® Portfolio Manager®, perform retro-commissioning at those facilities with the greatest energy use and/or energy use intensity, and attain an ENERGY STAR® rating when cost-effective.

Strategy 9D: Capture organic waste and develop regional capacity for beneficial reuse.

- **Action 120:** Establish guidelines for large quantity food waste or green waste generators to perform on-site composting, mulching, or anaerobic digestion, and develop a marketing plan for the product.
- **Action 121:** Promote and communicate source separation, organic waste collection requirements, food waste reduction and donation, local organic waste recycling programs, and conduct targeted, sector-based educational campaigns.

Strategy 9E: Divert reusable and recyclable materials from landfills.

- **Action 122:** Expand and support existing countywide programs that incentivize the development of local upcycling and recycling markets and quality recycled materials.
- **Action 123:** Increase the diversion requirements in the County's Construction & Demolition debris ordinance, encourage the use of recycled-content materials in construction projects, and incentivize use of recycled materials in public art projects funded or commissioned by the County.
- **Action 124:** Establish rigorous recycling programs and requirements in County Departments.
- **Action 125:** Develop an equitable waste conversion facility siting and byproduct plan.

APPENDIX D

Planning Area Profiles

Every community in Los Angeles County has a role to play in reducing environmental impacts due to greenhouse gas (GHG) emissions and in reaching unincorporated Los Angeles County's (Unincorporated Los Angeles County's) GHG emissions reduction goals. Unincorporated communities are diverse in their demographics, geography, land use, and built form, and therefore the potential to reduce GHG emissions can vary significantly by community.

These profiles provide an overview of each of the 11 planning areas as outlined in the County of Los Angeles (County) General Plan. These planning profiles provide some information about the unincorporated areas from a climate action perspective and identify "Key Climate Actions" for each community. The profiles highlight select data points such as stationary energy emissions, population, exposure to pollution, health, and transportation patterns in each planning area. The planning profiles presented herein represent GHG emissions as they were quantified in 2020, using on-road transportation emission factors from the California Air Resources Board's (CARB's) EMFAC2017 model. The emissions inventory for the unincorporated Los Angeles County has since been revised using updated models including the more recent EMFAC2021 model, with the result showing that on-road transportation represents a lower percentage of overall unincorporated Los Angeles County emissions than estimated using the EMFAC2017 model. However, the revised emissions estimates do not affect the general conclusions regarding the key climate actions for each planning area, as the relative breakdown of emissions by sector remains roughly the same, with transportation and building energy constituting the majority of emissions in each planning area.

Transportation-related emissions from passenger vehicles and trucks account for more than half of all GHG emissions in unincorporated areas. Based on commute-to-work data, most planning areas seem to have a similar mode split. The Metro Planning Area has the lowest rates of driving

and the highest rates of transit use. However, without additional information about travel behavior, it is not possible to make meaningful interpretations about the distance traveled and transportation-related emissions in each community. Due to limited data availability, the Planning Area Profiles only note the commute mode split for each community.

Stationary energy, in particular building energy use, is responsible for about one-third of GHG emissions in unincorporated areas. A comparative analysis of stationary energy by planning area, population, sector, and fuel type is shown in Figures D-1, D-2, and D-3. Each area's unique characteristics inform "Key Climate Action" priority recommendations to maximize the GHG reductions for each planning area. Opportunities for emissions reductions exist in all communities. Some key observations are:

- The Metro Planning Area has the highest total emissions but has the lowest emissions per capita. Similarly, the East San Gabriel Valley has the second highest total emissions and the second lowest emissions per capita. These are also the two most populous planning areas.
- The Santa Monica Mountains and the San Fernando Valley have high emissions per capita, but very low overall emissions.
- Of the eight planning areas with a population over 20,000, the Santa Clarita Valley has the highest per capita emissions. The Gateway Planning Area has the highest emissions per capita of the four planning areas with a population over 100,000.
- The West San Gabriel Valley, the Antelope Valley, and the East San Gabriel Valley have high percentages of emissions from the residential sector.
- The Westside Planning Area has a high percentage of emissions from the commercial sector.
- The Gateway Planning Area has high percentage of emissions from the industrial sector. Industrial emissions not only contribute to climate change but may also contain more local air quality pollutants than emissions from other sectors.
- The Metro Planning Area and the West San Gabriel Valley have the highest consumption of natural gas.

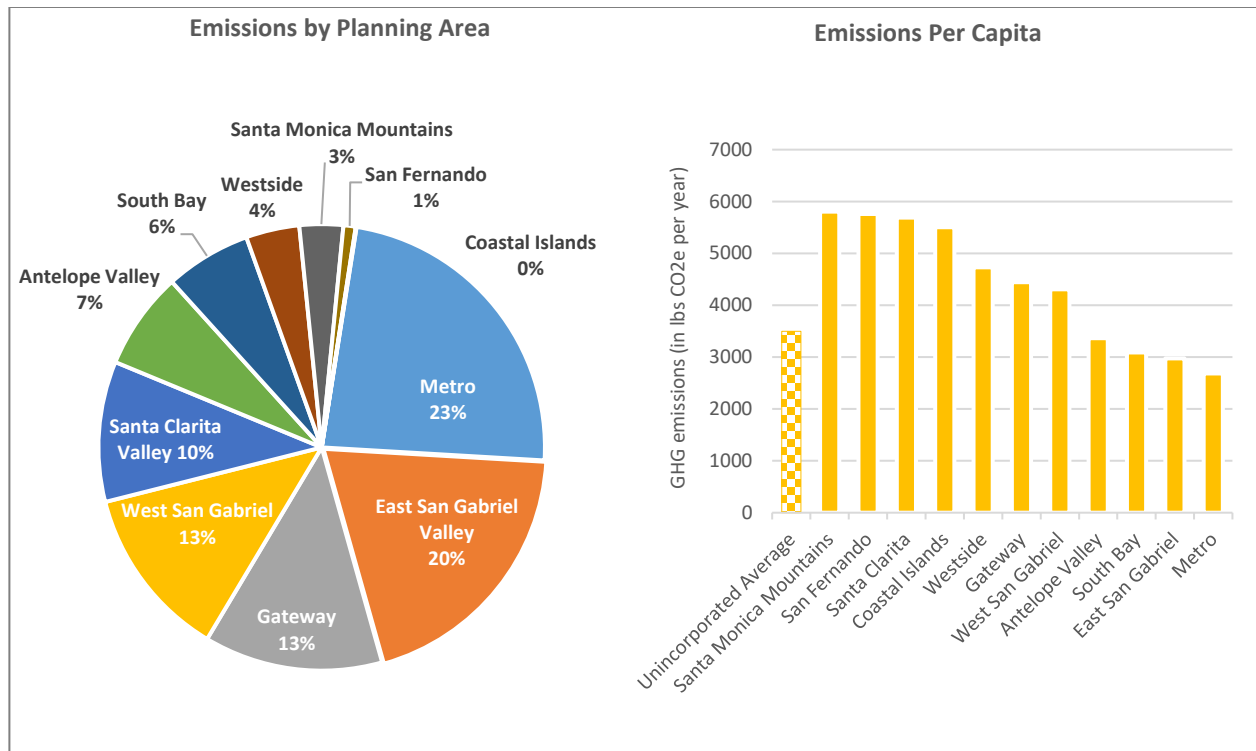


Figure D1: Stationary Energy Emissions Comparative Analysis

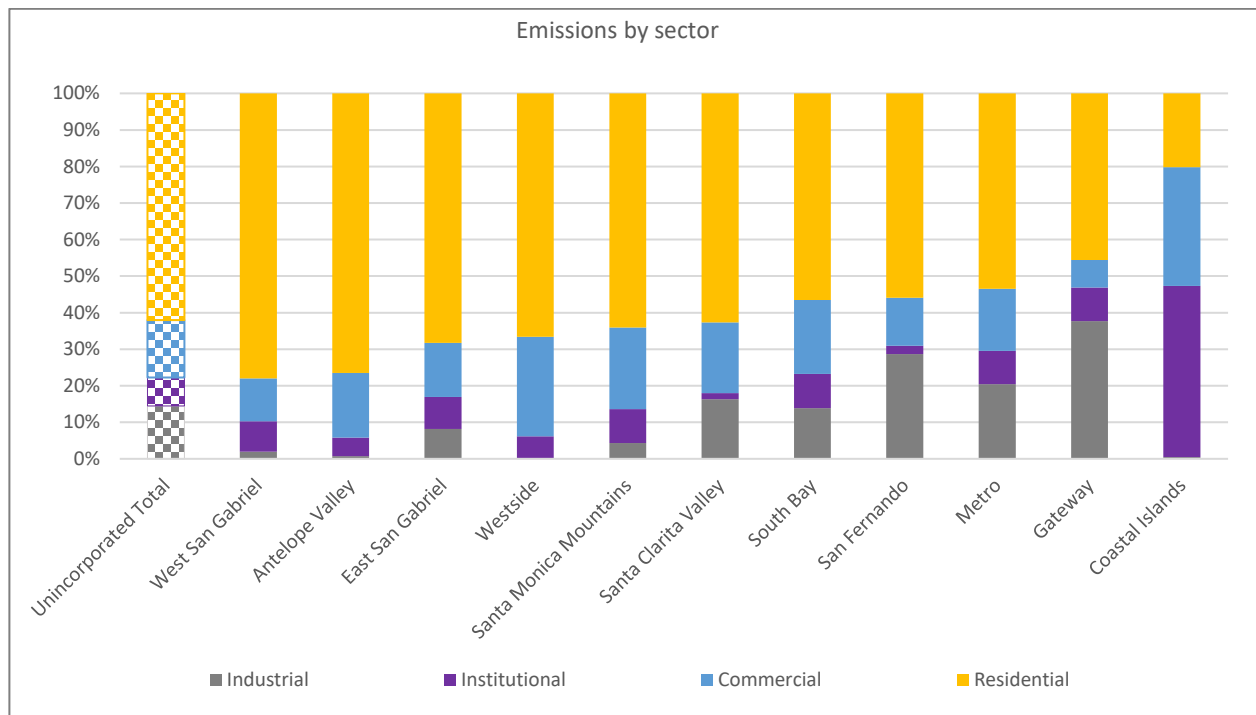


Figure D2: Stationary Energy GHG Emissions by Sector

NOTE: The figures presented above represent GHG emissions as they were quantified in 2020. The emissions inventory for the unincorporated Los Angeles County has since been revised. However, the relative breakdown of emissions by sector remains roughly the same.

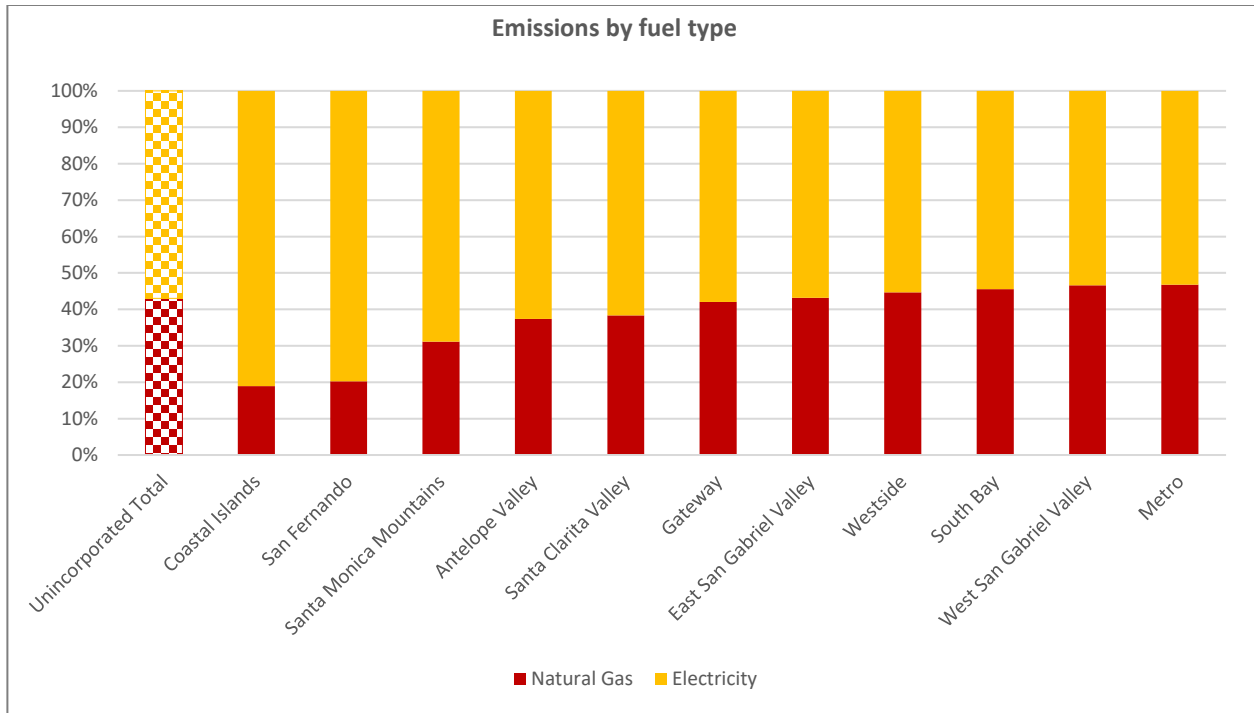


Figure D3: Stationary Energy GHG Emissions by Sector

NOTE: The figures presented above represent GHG emissions as they were quantified in 2020. The emissions inventory for the unincorporated Los Angeles County has since been revised. However, the relative breakdown of emissions by sector remains roughly the same.

Terms Used in Planning Area Profiles

PM_{2.5} Percentile: Particulate matter (PM) is a combination of solid and liquid droplets found in the air. PM can include dust, dirt, soot, or smoke. Some PM is large enough to be seen but other types are microscopic (fine PM with a diameter of less than 2.5 microns). Fine PM can travel deeply into the human respiratory tract and can cause health effects such as throat irritation, coughing, or asthma. The PM_{2.5} percentile indicates the concentration of fine PM in each planning area as compared to all census tracts in the state of California, as measured by CalEnviroScreen 3.0 (<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>, retrieved in October 2019).

Pollution Burden Percentile: Pollution Burden indicators are issues of widespread concern in California that the California Environmental Protection Agency's boards, departments, and offices can take action to remedy, divided into two categories: *Exposures* are pollutants that may come into direct contact with people, while *environmental effects* are adverse environmental conditions caused by pollutants. The Pollution Burden Percentile indicates the pollution burden score in each planning area compared to all census tracts in the state of California as measured by CalEnviroScreen 3.0 (<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>, retrieved in October 2019).

Asthma Percentile: Age-adjusted rate of asthma-related emergency department visits. Percentile is relative to all census tracts in the state of California. (<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>, retrieved in October 2019)

Estimated Population in Disadvantaged Communities: Unincorporated population in census tracts where 75 percent or more of the population is identified as disadvantaged as measured by CalEnviroScreen 3.0 (<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>, retrieved in October 2019).

Estimated Population in High Quality Transit Areas (HQTAs): HQTAs are walkable areas within one-half mile of a well-serviced transit stop or a transit corridor, with 15-minute or better service frequency during peak commute hours. This indicator measures the population within unincorporated areas living within HQTAs. (SCAG RTP SCS, BuroHappold analysis)

Estimated Population in Transit Oriented District (TODs): Unincorporated population living within areas designated as TODs by the Los Angeles County Department of Regional Planning. (Los Angeles County DRP, BuroHappold analysis)

Drive Alone/Carpool/Transit: Percentage of travelers using a particular type of transportation for trips to work. (American Community Survey 2013–2017)

Stationary Energy Emissions: Emissions from stationary sources in unincorporated areas by sector.



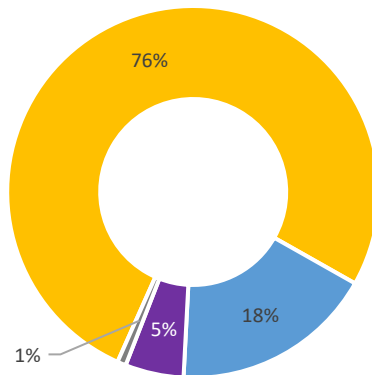
ANTELOPE VALLEY PLANNING AREA

The Antelope Valley Planning Area contains the majority of active agricultural land in Los Angeles County. The area faces a number of environmental challenges, including extreme heat, limited water supply, threats of wildfires, and floods. However, the Antelope Valley also contains some of the unincorporated Los Angeles County’s richest sources of biodiversity as identified through the County’s SEA Program. The area has a high rate of commuting by driving alone, but also has the highest bicycle mode split in unincorporated Los Angeles County (2 percent of trips to work are made by bicycle).

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | ANTELOPE VALLEY |
|---|--------------------------|-----------------|
| Total Population | 1,037,227 | 76,101 |
| Estimated Population in HQTAs | 330,000 | 4,000 |
| Estimated Population in TODs | 69,000 | 0 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 80% / 11% / 1% |
| PM _{2.5} Percentile | 63.6 | 14.5 |
| Pollution Burden Percentile | 62.3 | 25.2 |
| Asthma Percentile | 51.4 | 51.1 |
| Estimated Population in Disadvantaged Communities | 383,000 | 8,000 |

Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions supporting transportation electrification
- Actions to encourage biking and active transportation
- Actions to preserve agricultural and natural areas
- Actions decarbonizing agricultural practices
- Actions targeting zero carbon energy in wildfire-prone areas

NOTE: This figure and all figures presented below represent GHG emissions as they were quantified in 2020. The emissions inventory for the unincorporated Los Angeles County has since been revised. However, the revised emissions estimates do not affect the general conclusions regarding the key climate actions for each planning area, as the relative breakdown of emissions by sector remains roughly the same.



COASTAL ISLANDS PLANNING AREA

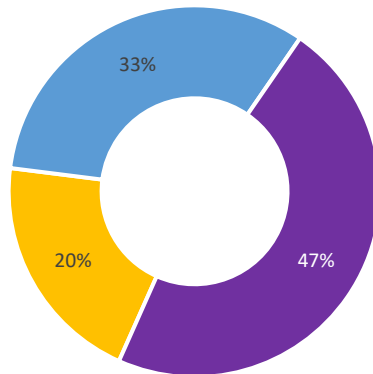
The Coastal Islands are characterized by rugged landscape and a cliffed shoreline. Much of Santa Catalina Island is protected natural space, but there is also a landfill on the island. The area has the lowest population, lowest GHG emissions, and lowest natural gas use of any planning area. Institutional uses are responsible almost half of the areas GHG emissions.

NOTE: Data are unavailable on health, pollution, and transportation patterns for the Coastal Islands Planning Area, but data are provided for population and energy use.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | COASTAL ISLANDS |
|-------------------------------|--------------------------|-----------------|
| Total Population | 1,037,227 | 374 |
| Estimated Population in HQTAs | 330,000 | 0 |
| Estimated Population in TODs | 69,000 | 0 |

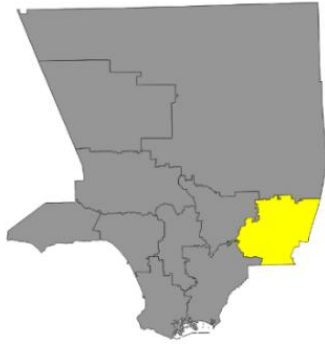
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional



Key Climate Actions

- Actions to preserve agricultural and natural areas
- Actions relating to landfills and waste management
- Actions focused on reducing institutional emissions
- Consideration of opportunities to preserve and nourish the islands' kelp forests for their ability to sequester carbon



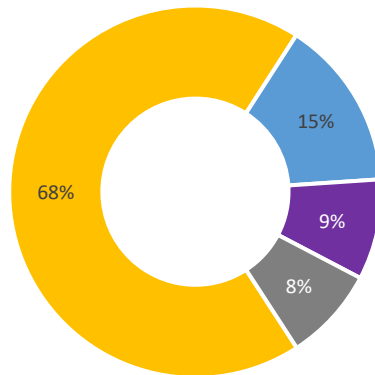
EAST SAN GABRIEL VALLEY PLANNING AREA

The East San Gabriel Valley Planning Area is characterized by valleys and rolling, dry hills. The northern portion of the planning area connects to Angeles National Forest and the San Gabriel Mountains. Wildfires and landslides pose safety hazards in the foothill communities. The East San Gabriel Valley Planning Area has the highest residential GHG emissions in unincorporated Los Angeles County. The area also has unincorporated Los Angeles County’s highest rate of commuting by driving alone.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | EAST SAN GABRIEL VALLEY |
|---|--------------------------|-------------------------|
| Total Population | 1,037,227 | 240,274 |
| Estimated Population in HQTAs | 330,000 | 38,000 |
| Estimated Population in TODs | 69,000 | 0 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 80% / 9% / 3% |
| PM _{2.5} Percentile | 63.6 | 71.7 |
| Pollution Burden Percentile | 62.3 | 67.9 |
| Asthma Percentile | 51.4 | 44.1 |
| Estimated Population in Disadvantaged Communities | 383,000 | 48,000 |

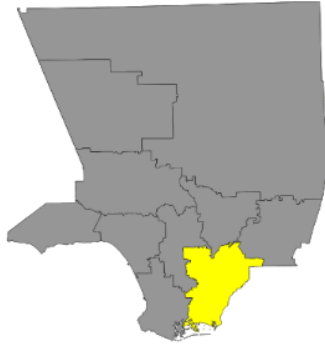
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions focused on improving transit services
- Actions encouraging density and active transit near high quality transit
- Actions supporting transportation electrification
- Actions to reduce residential and commercial stationary energy emissions
- Actions focusing on disadvantaged/vulnerable communities
- Actions to preserve agricultural and natural areas
- Actions targeting zero carbon energy in wildfire-prone areas



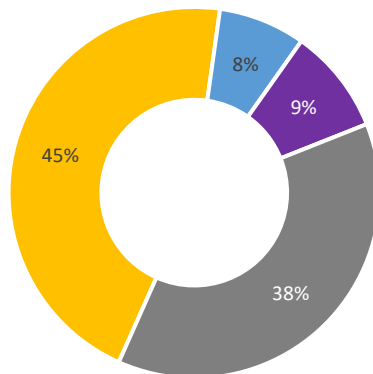
GATEWAY PLANNING AREA

The Gateway Planning Area has a large amount of built-out industrial land. The concentration of industrial uses and freight traffic impact air and water pollution in this area. The Gateway Planning Area also suffers from a lack of parks and recreational opportunities. The area has a high rate of commuting by driving alone, a high rate of natural gas emissions per capita, and the highest industrial emissions in unincorporated Los Angeles County. The Puente Hills landfill and material recovery facility is located in the planning area.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | GATEWAY |
|---|--------------------------|----------------|
| Total Population | 1,037,227 | 105,641 |
| Estimated Population in HQTAs | 330,000 | 10,000 |
| Estimated Population in TODs | 69,000 | 600 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 80% / 10% / 3% |
| PM _{2.5} Percentile | 63.6 | 79.2 |
| Pollution Burden Percentile | 62.3 | 69.1 |
| Asthma Percentile | 51.4 | 62.6 |
| Estimated Population in Disadvantaged Communities | 383,000 | 57,000 |

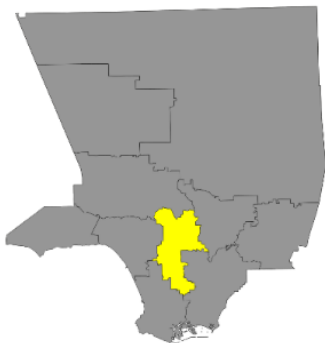
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions to reduce industrial stationary energy emissions
- Actions to limit oil and natural gas production
- Actions to reduce emissions from heavy-duty trucks
- Actions supporting transportation electrification
- Actions focusing on disadvantaged communities
- Actions to reduce vehicle miles traveled and traffic congestion
- Actions diverting waste from landfills
- Actions focused on building decarbonization



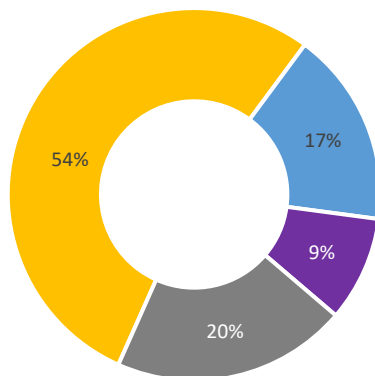
METRO PLANNING AREA

The majority of the Metro Planning Area is urbanized and there are no large areas of natural open space outside of parks and recreational areas. The presence of industrial districts in residential areas creates land use conflicts and health impacts. The planning area also suffers from traffic congestion and inadequate pedestrian and bicycle infrastructure. The Metro Planning Area has unincorporated Los Angeles County’s lowest rate of driving alone, highest rate of commuting by transit, and highest rate of commuting by walking.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | METRO |
|---|--------------------------|----------------|
| Total Population | 1,037,227 | 316,629 |
| Estimated Population in HQTAs | 330,000 | 208,000 |
| Estimated Population in TODs | 69,000 | 57,000 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 72% / 12% / 9% |
| PM _{2.5} Percentile | 63.6 | 83.6 |
| Pollution Burden Percentile | 62.3 | 80.4 |
| Asthma Percentile | 51.4 | 76.4 |
| Estimated Population in Disadvantaged Communities | 383,000 | 211,000 |

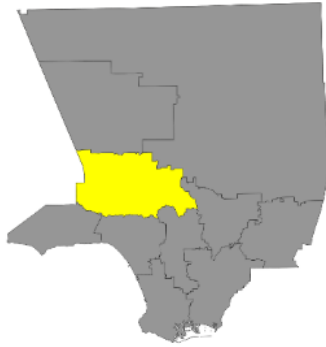
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions focused on improving transit services
- Actions encouraging density near high-quality transit
- Actions to reduce vehicle miles traveled and traffic congestion
- Actions to encourage biking and active transportation
- Actions to limit oil and natural gas production
- Actions to reduce emissions from heavy-duty trucks
- Actions focusing on disadvantaged communities
- Actions to reduce all sources of stationary energy emissions
- Actions focused on building decarbonization



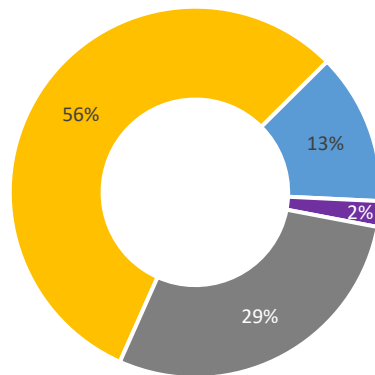
SAN FERNANDO VALLEY PLANNING AREA

The San Fernando Valley Planning Area is ringed with distinct hillsides and mountain ranges. Only a small portion of the planning area is unincorporated. These communities are primarily low-density, suburban communities. The area faces significant wildfire hazards.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | SAN FERNANDO VALLEY |
|---|--------------------------|---------------------|
| Total Population | 1,037,227 | 5,559 |
| Estimated Population in HQTAs | 330,000 | 0 |
| Estimated Population in TODs | 69,000 | 0 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 79% / 9% / 2% |
| PM _{2.5} Percentile | 63.6 | 49.9 |
| Pollution Burden Percentile | 62.3 | 38.1 |
| Asthma Percentile | 51.4 | 27.3 |
| Estimated Population in Disadvantaged Communities | 383,000 | 88 |

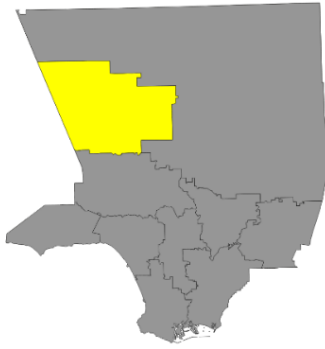
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions to encourage biking and active transportation
- Actions supporting transportation electrification
- Actions targeting zero carbon energy in wildfire-prone areas
- Actions to preserve agricultural and natural areas
- Actions to expand urban forest areas and increase existing tree canopy



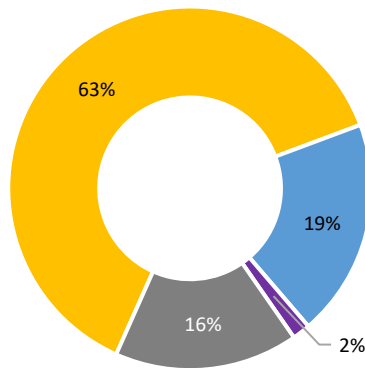
SANTA CLARITA VALLEY PLANNING AREA

The Santa Clarita Valley Planning Area is framed by mountain ranges and Angeles National Forest. The planning area is one of the fastest growing areas in Los Angeles County. Because of this rapid growth, the planning area faces multiple challenges related to infrastructure planning, preservation of open space, and reduction of vehicle miles traveled. The area has a high rate of commuting by driving alone, and the highest per capita natural gas emissions in unincorporated Los Angeles County.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | SANTA CLARITA VALLEY |
|---|--------------------------|----------------------|
| Total Population | 1,037,227 | 64,838 |
| Estimated Population in HQTAs | 330,000 | 0 |
| Estimated Population in TODs | 69,000 | 0 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 79% / 9% / 2% |
| PM _{2.5} Percentile | 63.6 | 33.2 |
| Pollution Burden Percentile | 62.3 | 38.9 |
| Asthma Percentile | 51.4 | 19.0 |
| Estimated Population in Disadvantaged Communities | 383,000 | 0 |

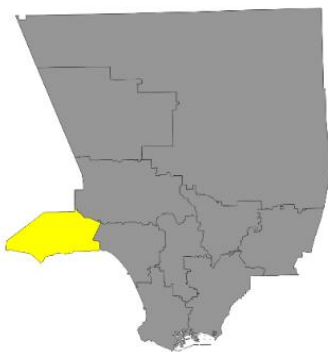
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions supporting transportation electrification
- Actions to limit oil and natural gas production
- Actions to reduce commercial emissions
- Actions to preserve agricultural and natural areas
- Actions focused on building decarbonization
- Actions targeting zero carbon energy in wildfire-prone areas
- Actions to expand urban forest areas and increase existing tree canopy



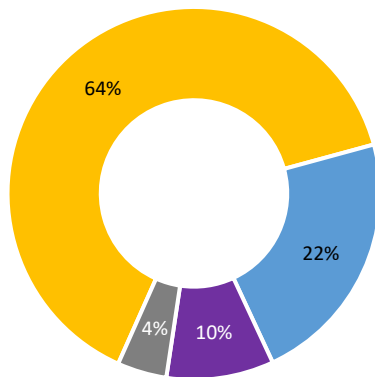
SANTA MONICA MOUNTAINS PLANNING AREA

The Santa Monica Mountains Planning Area is characterized by mountains, dry valleys, and beaches. The planning area’s natural beauty comes with numerous environmental issues and natural hazards, including severe wildfire risks and landslides. The Calabasas Landfill is in the planning area.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | SANTA MONICA MOUNTAINS |
|---|--------------------------|------------------------|
| Total Population | 1,037,227 | 19,781 |
| Estimated Population in HQTAs | 330,000 | 0 |
| Estimated Population in TODs | 69,000 | 0 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 78% / 5% / 1% |
| PM _{2.5} Percentile | 63.6 | 46.7 |
| Pollution Burden Percentile | 62.3 | 42.8 |
| Asthma Percentile | 51.4 | 2.8 |
| Estimated Population in Disadvantaged Communities | 383,000 | 0 |

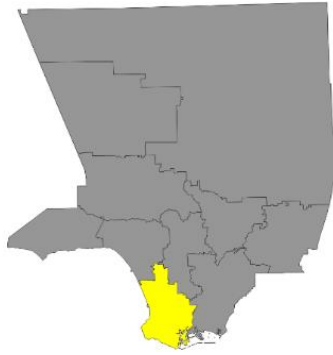
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions to preserve natural areas
- Actions targeting distributed energy resources (DER) in wildfire-prone areas
- Actions relating to landfills and waste management



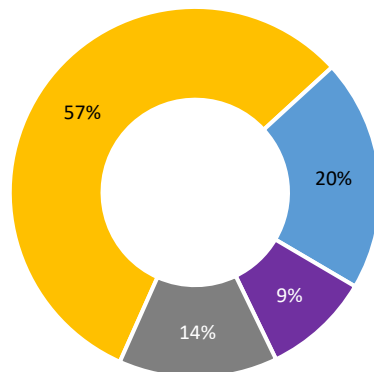
SOUTH BAY PLANNING AREA

The South Bay Planning Area is covered with hills, open spaces, and rocky shorelines along the Pacific Coast. Issues facing the planning area include traffic congestion, limited public transportation options, and air quality concerns. The region’s proximity to LAX and the ports creates planning and air quality challenges. Petroleum refining is also a significant source of air pollution in the region.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | SOUTH BAY |
|---|--------------------------|----------------|
| Total Population | 1,037,227 | 73,085 |
| Estimated Population in HQTAs | 330,000 | 32,000 |
| Estimated Population in TODs | 69,000 | 10,000 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 77% / 10% / 4% |
| PM _{2.5} Percentile | 63.6 | 78.1 |
| Pollution Burden Percentile | 62.3 | 83.1 |
| Asthma Percentile | 51.4 | 67.3 |
| Estimated Population in Disadvantaged Communities | 383,000 | 39,000 |

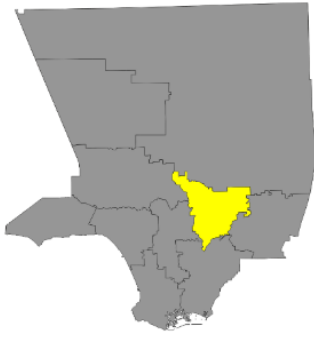
Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions to limit oil and natural gas production
- Actions focusing on improving transit services
- Actions encouraging density near high-quality transit
- Actions to reduce emissions from heavy-duty trucks
- Actions relating to landfills and waste management
- Actions focused on building decarbonization



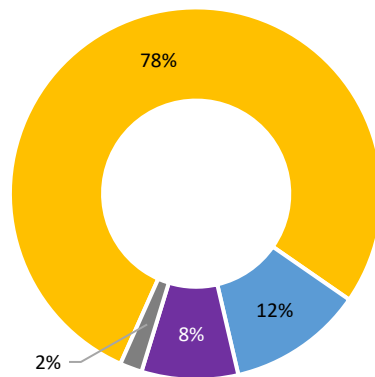
WEST SAN GABRIEL VALLEY PLANNING AREA

The West San Gabriel Valley Planning Area includes the foothills of the San Gabriel Mountains and Angeles National Forest. The San Gabriel River flows north-south along the planning area’s eastern border. The planning area is almost entirely developed with historically suburban developments. Many of the communities are designated Very High Fire Hazard Severity Zones, which reflects the threat of wildfires and subsequent mudslides within those areas. The area has the third highest per capita natural gas emissions in unincorporated Los Angeles County.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | WEST SAN GABRIEL VALLEY |
|---|--------------------------|-------------------------|
| Total Population | 1,037,227 | 105,252 |
| Estimated Population in HQTAs | 330,000 | 13,000 |
| Estimated Population in TODs | 69,000 | 2,000 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 79% / 10% / 3% |
| PM _{2.5} Percentile | 63.6 | 62.0 |
| Pollution Burden Percentile | 62.3 | 61.5 |
| Asthma Percentile | 51.4 | 32.6 |
| Estimated Population in Disadvantaged Communities | 383,000 | 16,000 |

Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions supporting transportation electrification and improved transit service
- Actions to encourage transit for youth and seniors
- Actions to reduce residential emissions
- Actions focused on building decarbonization
- Actions targeting zero carbon energy in wildfire-prone areas



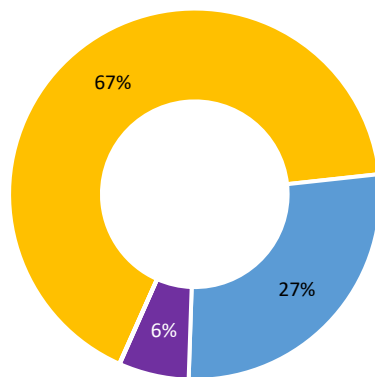
WESTSIDE PLANNING AREA

The Westside Planning Area is comprised of beaches, Marina del Rey, Baldwin Hills, and Kenneth Hahn State Park. Significant environmental resources exist in the planning area, most notably the Ballona Wetlands, which are threatened by potential sea level rise caused by climate change. Most of Ladera Heights/View Park–Windsor Hills is in a Very High Fire Hazard Severity Zone. The Westside Planning Area also includes a large urban oil field in Baldwin Hills. The area has low access to transit, but the second highest bicycle mode split in unincorporated Los Angeles County (2 percent). The area has the second highest per capita natural gas emissions in unincorporated Los Angeles County.

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | WESTSIDE |
|---|--------------------------|---------------|
| Total Population | 1,037,227 | 29,693 |
| Estimated Population in HQTAs | 330,000 | 26,000 |
| Estimated Population in TODs | 69,000 | 0 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 76% / 7% / 3% |
| PM _{2.5} Percentile | 63.6 | 75.5 |
| Pollution Burden Percentile | 62.3 | 71.8 |
| Asthma Percentile | 51.4 | 41.2 |
| Estimated Population in Disadvantaged Communities | 383,000 | 3,000 |

Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions focusing on improving transit services
- Actions encouraging density near high-quality transit
- Actions to encourage biking and active transportation
- Actions to reduce commercial emissions
- Actions to limit oil and natural gas production
- Actions to reduce emissions from heavy-duty trucks
- Actions focused on building decarbonization

APPENDIX E

Implementation Details

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Table E-1 provides implementation details for the measures and actions discussed in Chapter 3. The “Performance Objectives” included in the table embody the specific objectives of the *2045 Los Angeles County Climate Action Plan (2045 CAP)* for each measure. These performance objectives represent guideposts for the successful implementation of each measure and the 2045 CAP as a whole. However, they are not specific mandates. As the 2045 CAP is implemented and adapted over time, many of these performance objectives may change. Greenhouse gas emissions reductions for 18 of the identified measures were quantified at the measure level based on these performance objectives, and monitoring will also occur at the measure level. Tracking metrics are intended to identify potential data that may be used to analyze GHG emission reductions and may be revised administratively. The table also identifies funding for all quantified measures. Additional future funding sources will need to be identified for non-quantified measures.

Table E-1: Greenhouse Gas Strategy, Measure, and Action Implementation Details

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|--|--|----------|---|--|--|-------------------------|-------------|--|
| Strategy 1: Decarbonize the Energy Supply | | | | | | | | |
| ES1^a | Develop a Sunset Strategy for All Oil and Gas Operations: Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal. | | | Reduce oil and gas operations: * <ul style="list-style-type: none"> • 40% by 2030 • 60% by 2035 • 80% by 2045 Examine all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Conduct carbon removal feasibility study. * <i>The performance objectives provided here serve as a general metric and may be refined upon completion of the Oil Well Amortization Study.</i> | | | | |
| ES1.1 | Collaborate with other local jurisdictions and utilities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. | CSO, DRP | PW, ISD, cities, California Geologic Energy Management Division; DPH | | <ul style="list-style-type: none"> • Number of well sites decommissioned and remediated • Emissions reductions achieved through well decommissioning | Short term (2024–2030) | \$–\$\$ | County General Fund |
| ES1.2 | Develop a policy that requires the examination of idle and abandoned oil wells for fugitive emissions of GHGs to develop and implement a closure plan. Coordinate with federal and state agencies collecting fugitive emissions data. | CSO | DRP, PW, ISD, cities, California Geologic Energy Management Division; DPH | | <ul style="list-style-type: none"> • Number of oil wells examined • Amount of GHGs emitted (estimated or measured) | Short term (2024–2030) | \$–\$\$ | County General Fund |
| ES1.3 | Develop a carbon removal strategy that considers direct air capture and carbon capture and sequestration (CCS). | CSO | PW, DRP, ISD, CARB CCS Program | | <ul style="list-style-type: none"> • Number of CCS systems constructed • GHG emissions removed annually | Medium term (2030–2035) | \$–\$\$\$\$ | Federal CIFIA Program, Infrastructure Investment and Jobs Act of 2021, SB 905, SB 1137, AB 1757, and SB 27 |
| ES2^a (Core) | Procure Zero-Carbon Electricity: Supplying unincorporated Los Angeles County’s power demand with zero-carbon electricity is critical to achieving significant GHG emissions reductions. The Clean Power Alliance (CPA) is a nonprofit and community choice energy provider that currently serves 32 communities across Southern California. | | | Participate in CPA’s Green Power option, SCE’s Green Rate option, or other available 100% zero carbon electricity service: <ul style="list-style-type: none"> • 100% municipal participation by 2025. • 96% community participation by 2030 (approximately 4% opt-out rate). | | | | |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|------------------|--|----------|-----------------|--|--|------------------------|------|---|
| ES2.1 | Transition all County facilities within unincorporated areas to CPA's 100% Green Power option, SCE's 100% Green Rate option, or other available 100% renewable electricity service. ^M | CSO, ISD | CPA, SCE, LA100 | | <ul style="list-style-type: none"> CPA 100% Green Power enrollment for County accounts SCE's 100% Green Rate enrollment for County accounts Enrollment in other available 100% renewable electricity service Electricity supplied by CPA | Short term (2024–2030) | \$ | Funded; Federal Inflation Reduction Act CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, CPUC California Solar Initiative, CPUC Self-Generation Incentive Program, Low-Income Solar and Wind Investment Tax Credit, DOE Renewable Energy and Efficiency Energy grants |
| ES2.2 | Complete enrollment of the community in CPA's 100% Green Power or SCE's Green Rate option. | CSO | CPA, SCE, LA100 | | <ul style="list-style-type: none"> CPA 100% Green Power participation and/or opt-out rate Electricity supplied by CPA (MWh) SCE 100% Green Rate participation and/or opt-out rate Electricity supplied by SCE (MWh) | Short term (2024–2030) | \$\$ | CPA Powershare Program, Federal Inflation Reduction Act CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, CPUC California Solar Initiative, CPUC Self-Generation Incentive Program, Low-Income Solar and Wind Investment Tax Credit, DOE Renewable Energy and Efficiency Energy grants |
| ES3 ^a | Increase Renewable Energy Production: Expand local solar power generation on existing and new development and for County projects. | | | <p>Install rooftop solar PV on all existing single-family residential homes and multifamily residential buildings:</p> <ul style="list-style-type: none"> 20% by 2030 25% by 2035 35% by 2045 <p>Install rooftop solar PV on all existing commercial buildings:</p> <ul style="list-style-type: none"> 15% by 2030 22% by 2035 32% by 2045 <p>Install rooftop solar PV on all new multifamily residential buildings:</p> <ul style="list-style-type: none"> 80% by 2030 85% by 2035 95% by 2045 <p>Install rooftop solar PV on all new commercial buildings:</p> <ul style="list-style-type: none"> 40% by 2030 50% by 2035 70% by 2045 <p>Install 20,000 kW of solar PV at County facilities by 2030.</p> <p>Install rooftop solar PV at all affordable housing developments.</p> | | | | |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-------|---|------|-------------------|------------------------|---|--|-----------|---|
| ES3.1 | Require rooftop solar PV for all new development. | PW | DRP, CSO | | <ul style="list-style-type: none"> Number of rooftop solar PV installations for all new development Total kW solar capacity installed in community | Short term; implement ordinance immediately (2024) | \$ | Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees |
| ES3.2 | Install rooftop solar PV at existing buildings. | PW | DRP, CSO | | <ul style="list-style-type: none"> Number of rooftop solar PV installations for existing multifamily residential buildings and existing commercial buildings Total kW solar capacity installed in community | Short term (2024–2030) | \$–\$\$\$ | Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees |
| ES3.3 | Identify and install solar PV systems at existing viable County facilities and properties. ^M | ISD | PW, CSO, SCE, CPA | | <ul style="list-style-type: none"> Total MW solar capacity installed at County facilities | Short term (2024–2030) | \$\$\$ | Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees |
| ES3.4 | Explore the feasibility to install community-shared solar facilities on County properties where opportunities exist. ^M | ISD | PW, CSO, SCE, CPA | | <ul style="list-style-type: none"> Total community-shared MW solar capacity installed | Medium term (2030–2035) | \$\$\$ | Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-------|---|-----------------|--------------|---|---|--|------|---|
| ES3.5 | Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings. | DRP, CSO, LACDA | PW, SCE, CPA | | <ul style="list-style-type: none"> Number of rooftop solar PV installations Total MW solar capacity installed | Short term; implement ordinance immediately (2024) | \$ | Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees |
| ES3.6 | Streamline and prioritize permitting for solar and battery storage projects. | DRP | CSO, PW | | <ul style="list-style-type: none"> Number of solar PV installations Total MW solar capacity installed Number of battery storage installations Total MW battery capacity installed | Short term (2024–2030) | \$ | Federal Solar Investment Tax Credit, CPUC Self-Generation Incentive Program, California Solar Energy System Property Tax Exclusion, CPUC Single-Family Affordable Solar Homes (SASH) Program, SCE Programs, Renewable Energy Production Tax Credit, Clean Electricity Investment Tax Credit, Low-Income Solar and Wind Investment Tax Credit, Greenhouse Gas Reduction Fund, Clean Energy Load Guarantees |
| ES4 | Increase Energy Resilience: Expand energy storage and microgrids throughout the community and for County operations. | | | <ul style="list-style-type: none"> Achieve community electricity storage capacity equal to the community-wide 24-hour average usage by 2035/2045. Achieve community electricity generation capacity equal to the communitywide 24-hour average usage by 2035/2045. Establish a community resilience hub program to equip community-serving County facilities (e.g., libraries, rec centers, senior centers). Provide solar and battery systems sufficient to support emergency cooling and other emergency functions. Partner with the local community for implementation. Locate at least one hub in each County district, with a focus on vulnerable populations. Install microgrids based on a feasibility study. Obtain a grant and establish a program to support an energy efficiency and assurance program for facilities that are large energy users and support critical community functions. | | | | |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|------------|--|----------|----------------------------------|---|--|----------------------------------|---------|--|
| ES4.1 | Develop a program to deploy community resilience hubs at scale. | ISD, DRP | PW, CSO | | <ul style="list-style-type: none"> Amount of generation/storage capacity per hub Number of community resilience hubs Number of people who can be supported at each hub during emergencies (daytime and nighttime) | Short to medium term (2024–2035) | \$–\$\$ | Leverage bulk purchasing for portfolio-scale implementation |
| ES4.2 | Invest in energy storage and microgrids at critical County facilities through CPA’s Power Ready Program. ^M | ISD | PW, CSO | | <ul style="list-style-type: none"> kW of energy storage capacity installed at County facilities Number and capacity of microgrids established | Short to medium term (2024–2035) | \$\$\$ | Power purchase agreement |
| ES4.3 | Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency. | CSO | ISD, PW, SCE, CPA | | | Short term (2024–2030) | \$\$ | SCE, CEC, CPUC |
| ES4.4 | Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management, peak shaving, and load shifting to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. | ISD | CSO, PW, DRP, SCE, CPA | | <ul style="list-style-type: none"> Number of microgrids installed | Short to medium term (2024–2035) | \$ | Leverage bulk purchasing for portfolio-scale implementation; power purchase agreements |
| ES4.5 | Develop a Countywide program to promote energy efficiency and resilience measures in facilities providing critical community services. | ISD | CSO, PW, DRP, SCE, CPA, SoCalRen | | <ul style="list-style-type: none"> Number of efficiency projects implemented Number of energy resilience projects implemented | Short to medium term (2024–2035) | \$\$ | State or federal grant (CEC, DOE) |
| ES5 | Establish GHG Requirements for New Development: Develop and implement requirements for new projects choosing to streamline their GHG impacts analysis under CEQA to ensure that such new development is consistent with the 2045 CAP goals as well as its milestone targets for 2030, 2035, and 2045. These requirements include applicant completion of a 2045 CAP CEQA streamlining checklist for non-CEQA-exempt new development requiring discretionary approvals to demonstrate consistency with the 2045 CAP and thereby streamline environmental review of their GHG impacts using the 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b). To demonstrate compliance with the 2045 CAP CEQA streamlining requirements, all projects that do not screen out of the 2045 CAP consistency review process must implement either (1) all feasible applicable checklist measures or (2) for infeasible checklist measures, alternative project emission reduction measures. The project review checklist will be used for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for streamlined project-specific CEQA GHG analysis. In addition, the County will assess the feasibility of developing a GHG offsets/credit program to create a pathway toward achieving the aspirational 2045 goal of carbon neutrality. | | | <ul style="list-style-type: none"> All new development that does not require a General Plan amendment and opts to use CEQA streamlining for GHG impacts shall be consistent with the 2045 CAP. Develop reach codes, ordinances, and conditions of approval as needed. | | | | |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|---|---|----------|---|---|--|--|---------|---|
| ES5.1 | Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. | DRP, CSO | PW, ISD | | <ul style="list-style-type: none"> Number and type of projects performing consistency review | Short term (2024–2030) | \$-\$\$ | County General Fund |
| ES5.2 | Implement the 2045 CAP CEQA streamlining checklist for new development to demonstrate consistency with the 2045 CAP's strategies, measures, and actions for purposes of streamlining environmental review of GHG impacts using the 2045 CAP's PEIR pursuant to CEQA Guidelines Section 15183.5(b). | DRP | PW | | <ul style="list-style-type: none"> Number and type of projects performing consistency review | Short term (2024–2030) | \$ | County General Fund |
| ES5.3 | Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. | DRP | PW | | <ul style="list-style-type: none"> Dollars invested into Offsite GHG Reduction Program Number of off-site projects implemented Quantity of GHG emission reductions achieved | Short term (2024–2030) | \$ | Project developers |
| Strategy 2: Increase Densities and Diversity of Land Uses Near Transit | | | | | | | | |
| T1^a | Increase Density Near High-Quality Transit Areas: Increase housing opportunities that are affordable and near transit, to reduce VMT. | | | <ul style="list-style-type: none"> Implement and complete Housing Element Update rezoning programs to achieve the minimum densities. Achieve a minimum of 20 dwelling units (DU) per acre (maximum of 30–150 DU per acre) for HQTAs. Locate a majority of residential and employment centers in unincorporated Los Angeles County within 1 mile of an HQTA. Achieve a 27% increase in DUs within HQTAs. | | | | |
| T1.1 | Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. | DRP | SCAG, Metro | | <ul style="list-style-type: none"> Number and percent of increase in DUs in HQTAs | Housing Element time frame (2021–2029) | \$ | County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T1.2 | Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. | DRP | Cities, Metro, and other transit agencies, SCAG | | <ul style="list-style-type: none"> Number and percent increase in DUs within HQTAs Total acres of commercial or industrial zones in HQTAs that can support jobs | Short term (2024–2030) | \$\$ | County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T2^a | Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use: Increasing density and the mix of land uses can help reduce single-occupancy trips, the number of trips, and trip lengths. | | | <ul style="list-style-type: none"> By 2030, achieve a job density of 300 jobs per acre. For communities with an imbalance of jobs/housing (±20%), develop community plans to identify and quantify strategies for bringing that imbalance below 20%. | | | | |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|--|---|---------|---|---|---|---------------------------------------|----------|--|
| T2.1 | Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. | DRP | PW | | <ul style="list-style-type: none"> Comparison between existing and future statistics for employment and housing density and totals within each area Number and % increase in DUs in HQTAs Total acres of commercial or industrial zones in HQTAs that can support jobs | Housing Element time frame (2021–029) | \$\$ | County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| Strategy 3: Reduce Single-Occupancy Vehicle Trips | | | | | | | | |
| T3^q | Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles. | | | <ul style="list-style-type: none"> Increase bikeway miles 300% by 2035. Implement the County's Bicycle Master Plan. Complete updates to the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years. | | | | |
| T3.1 | Create a more connected and safer bikeway network by expanding bikeway facilities and implementing protected and separated lanes. | PW | DRP, Metro, transit providers | | <ul style="list-style-type: none"> Miles of bikeways by route type | Long term (2035–2045) | \$\$\$\$ | Road reconstruction funds, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T3.2 | Implement and regularly update the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans. | DPH, PW | DRP, Metro, transit providers | | | Long term (2035–2045) | \$\$\$\$ | County General Fund, Bikeway funds, Supervisor TIP funds, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T3.3 | Collaborate with Metro and other transit providers to enhance pedestrian and bicycle environments through energy efficient lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program. | DRP, PW | Metro, transit providers, Parks, DPH, DRP | | <ul style="list-style-type: none"> Number and location of shade and lighting projects planned and completed | Medium term (2030–2035) | \$\$\$ | Partial funding secured; additional funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4^q | Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: Transit service, micro mobility services (such as bike-share, scooter-share, and drone deliveries), and access to these transportation options can help reduce VMT. | | | <ul style="list-style-type: none"> By 2030, double transit service hours from 560,000 to 1.12 million. By 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares. By 2030, ensure that 75% of unincorporated Los Angeles County residents live within one-half mile of shuttle or mobility service. | | | | |
| T4.1 | Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. | PW | ISD; transit providers including Metro, Foothill Transit, Long Beach Transit, and Montebello Bus Lines LA | | <ul style="list-style-type: none"> Size of area served Number of employees and residents served Service frequency and headways | Medium term (2030–2035) | \$\$\$\$ | New funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-------|---|----------|---|------------------------|---|----------------------------------|------------|--|
| T4.2 | Collaborate with Metro and other transit providers to install bus-only lanes and/or signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate. | PW | Metro, transit agencies, other cities | | <ul style="list-style-type: none"> • Increase in service frequencies • Decrease in headways • Increase in residents/employees served • Number and percentage of bus-only lanes installed on transit routes • Travel time reliability | Long term (2035–2045) | \$\$\$\$\$ | New funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.3 | Collaborate with Metro and other transit providers to develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit. | PW | Metro, transit agencies, CSO, DPH | | | Medium term (2030–2035) | \$\$ | New funds required, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.4 | Collaborate with Metro and other transit providers to set aside maintenance funds to ensure that public transit facilities, including stations and stops, are safe and clean to enhance the transit experience and increase ridership. | PW | Metro, transit agencies, CSO, DRP, LASD | | <ul style="list-style-type: none"> • Maintenance or increase in level of maintenance funds | Short term (2024–2030) | \$\$ | New funds needed, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.5 | Collaborate with Metro and other transit providers to develop and implement a transportation demand management (TDM) ordinance that requires future development projects to incorporate measures such as subsidized transit passes and car share. | PW | Metro, transit agencies, CSO, DRP | | <ul style="list-style-type: none"> • Mode share, commute trips, and parking occupancy at the tenant and building level • Number of employers participating in TDM program | Short to medium term (2024–2035) | \$ | County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.6 | Offer free and/or discounted transit passes for students, youth, seniors, people with disabilities, and low-income populations. | PW | Metro, transit agencies, CSO, DRP | | <ul style="list-style-type: none"> • Number of free transit passes issued • Number of discounted transit passes issued | Short term (2024–2030) | \$\$ | Proposition A Local Return Transit fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.7 | Expand and improve the County’s Telecommuting Policy, using data gathered through the alternative work program. | ISD, DHR | CSO, DRP, PW, SCAG | | <ul style="list-style-type: none"> • Number of employers participating in telecommuting policies • Number of employees actively telecommuting | Short term (2024–2030) | \$ | County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.8 | Establish temporary and permanent car-free areas. | DRP | PW, cities | | <ul style="list-style-type: none"> • Number and location of car-free areas in unincorporated Los Angeles County for each target year | Long term (2035–2045) | \$ | County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.9 | Develop a VMT bank or exchange program. | PW | DRP, CSO | | <ul style="list-style-type: none"> • Implementation of exchange program for use in project development | Short to medium term (2024–2035) | \$\$\$ | County General Fund, Greenhouse Gas Reduction Fund, Neighborhood Access and Equity Grants |
| T4.10 | Collaborate with Metro and other transit providers to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission. | CSO | Metro, transit agencies, DRP, PW | | <ul style="list-style-type: none"> • Number of ZEV buses • Number of ZEV shuttles • Total ZEV percentage of bus and shuttle fleet | Short to medium term (2024–2035) | \$\$\$ | Caltrans grant, CARB Bus Replacement Grant, CARB Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Federal Zero-Emission Transit Bus Tax Exemption, CARB California Clean Mobility Options Voucher Pilot Program, SCE Charge Ready Transit Bus Pilot and Charge Ready Transport, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, New EV Tax Credit, Commercial EV Tax Credit |

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|---|--|------|--------------|---|--|------------------------|-------------|------------|
| T5 | Limit and Remove Parking Minimums: Parking strategies such as parking maximums, unbundling parking, or market-price parking can help reduce VMT. | | | <ul style="list-style-type: none"> Reduce parking stipulations to reduce parking supply and encourage transit use. Unbundle parking costs to reflect cost of parking. Implement parking pricing to encourage "park-once" behavior. | | | | |
| T5.1 | Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, development of planning strategies for transitioning land dedicated to parking to alternative transit and public uses, and incentives for developers to provide less than maximum allowable parking. | DRP | PW | | <ul style="list-style-type: none"> Percent change in parking supply Number of new and expanded parking benefit districts Mode shift surveys in areas/buildings with reduced/unbundled/priced parking | Short term (2024–2030) | \$\$-\$\$\$ | LEAP Grant |
| Strategy 4: Institutionalize Low-Carbon Transportation | | | | | | | | |
| T6 ^a (Core) | Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales: Increase unincorporated Los Angeles County's ZEV market share and vehicle penetration to the maximum extent feasible to replace internal combustion engine vehicles. Set targets for reducing total gasoline and diesel vehicle fuel sales. | | | <p>Increase the fleetwide percentage of light-duty vehicles in unincorporated Los Angeles County that are ZEVs to:*</p> <ul style="list-style-type: none"> 30% by 2030 50% by 2035 90% by 2045 <p>Increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to: *</p> <ul style="list-style-type: none"> 68% by 2030 100% by 2035 <p>Install the following total number of new public and private shared EVCSs:</p> <ul style="list-style-type: none"> 37,000 by 2030 74,000 by 2035 140,000 by 2045 <p>Install the following total number of new EVCSs at County facilities and properties:</p> <ul style="list-style-type: none"> 5,000 by 2030 10,000 by 2035 25,000 by 2045 | | | | |
| T6.1 | Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure. | CSO | DRP, PW, ISD | | <ul style="list-style-type: none"> Number of ZEVs registered and number of non-ZEVs registered Total sales of gasoline and diesel fuel in unincorporated Los Angeles County Total number of gas stations decommissioned Specific tracking metrics for ZEV infrastructure and ZEV adoption to be identified in the plan | Short term (2024–2025) | \$ | TBD |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|------|--|----------|--|------------------------|---|--------------------------------|--------|--|
| T6.2 | Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County. | CSO, ISD | PW | | <ul style="list-style-type: none"> Number, location, and availability of EVCSs | Short to long term (2024–2045) | \$\$\$ | CEC CALeVIP and EVSE Rebates, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, SCAQMD and MSRC Residential EV Charging Incentive Pilot Program, CARB Clean Fuel Reward and CALeVIP, CalCAP EV Charging Station Financing Program for small businesses, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund |
| T6.3 | Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. | DRP | PW | | <ul style="list-style-type: none"> Number, location, and availability of EVCSs | Short term (2024–2030) | \$ | SCE Charge Ready Program, EVSE rebates, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, SCAQMD and MSRC Residential EV Charging Incentive Pilot Program, CARB Clean Fuel Reward and CALeVIP, CalCAP EV Charging Station Financing Program for small businesses, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund |
| T6.4 | Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities. | ISD | Fire, LASD, PW, Parks, Beaches and Harbors | | <ul style="list-style-type: none"> Number, location, and availability of EVCSs | Short to long term (2024–2045) | \$\$\$ | CEC CALeVIP EVSE rebate, SCAQMD Alternative Fuel Vehicle and Fueling Infrastructure Grants, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, CARB Clean Fuel Reward and CALeVIP, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund |
| T6.5 | Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. | ISD, PW | SCE, CSO, DRP, ISD | | | Short term (2024–2030) | \$ | SCE Charge Ready Program, CARB Greenhouse Gas Reduction Fund |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-----------------|---|------|--------------|--|--|-------------------------|--------|---|
| T6.6 | Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options. | CSO | DRP, PW, ISD | | <ul style="list-style-type: none"> • Number of e-scooters/e-bikes available • Number of neighborhood EVs available • Number of residents served • Number of rides • Average ride distance | Medium term (2030–2035) | \$ | CARB Clean Mobility Options Voucher Pilot Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CPUC statewide transportation electrification infrastructure rebate program, SCAQMD and MSRC Residential EV Charging Incentive Pilot Program, CARB Clean Fuel Reward and CALeVIP, CalCAP EV Charging Station Financing Program for small businesses, Federal Inflation Reduction Act EV tax credits and other financial incentives, CARB Greenhouse Gas Reduction Fund |
| T6.7 | Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources. | ISD | PW | | <ul style="list-style-type: none"> • NG and hydrogen truck registration data (or fuel consumption data) • Quantity of biomethane and biogas sold and consumed in unincorporated Los Angeles County • Percent of the community truck fleet that uses green biomethane and hydrogen | Medium term (2030–2035) | \$\$\$ | CARB Bus Replacement Grant, CARB Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Federal Zero-Emission Transit Bus Tax Exemption, CARB California Clean Mobility Options Voucher Pilot Program, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, SCAQMD Goods Movement Emission Reduction Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CPUC statewide transportation electrification infrastructure rebate program |
| T7 ^a | Electrify County Fleet Vehicles: Electrify the County bus, shuttle, and light-duty vehicle fleets. | | | <p>Electrify the County bus and shuttle vehicle fleets by 2035.</p> <p>Increase the fleetwide percentage of light-duty vehicles in the County-owned fleet that are ZEVs to:</p> <ul style="list-style-type: none"> • 35% by 2030 • 60% by 2035 • 100% by 2045 <p>Support the state's goal that all new light-duty vehicle fleet purchases, with certain exceptions, will be ZEVs.</p> | | | | |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|--|---|----------------------------|--|--|--|----------------------------------|----------|---|
| T7.1 | Electrify the County bus and shuttle vehicle fleets and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. ^M | PW, LASD | ISD | | <ul style="list-style-type: none"> Number of ZEV buses Number of ZEV light-duty vehicles Total ZEV percentage of bus and light-duty vehicle fleet | Short to medium term (2024–2035) | \$\$\$\$ | Caltrans grant, CARB Bus Replacement Grant, CARB Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Federal Zero-Emission Transit Bus Tax Exemption, CARB California Clean Mobility Options Voucher Pilot Program, SCE Charge Ready Transit Bus Pilot and Charge Ready Transport, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, New EV Tax Credit, Commercial EV Tax Credit |
| T7.2 | Electrify light-duty County fleet vehicles. ^M | ISD, LASD, Fire, PW, Parks | CSO | | <ul style="list-style-type: none"> ZEV percentage of light-duty County-owned fleet | Short to medium term (2024–2035) | \$\$\$ | CARB Clean Vehicle Rebate Project public fleet vehicle rebates, CARB Clean Cars for All program, Caltrans grants, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, New EV Tax Credit, Commercial EV Tax Credit |
| T8^a (Core) | Accelerate Freight Decarbonization: Incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure. | | | <p>Increase the fleetwide percentage of medium- and heavy-duty vehicles in unincorporated Los Angeles County that are ZEVs to:</p> <ul style="list-style-type: none"> 40% by 2030 60% by 2035 90% by 2045 <p>Increase the fleetwide percentage of medium- and heavy-duty vehicles in the County-owned fleet that are ZEVs to:</p> <ul style="list-style-type: none"> 50% by 2030 70% by 2035 95% by 2045 | | | | |
| T8.1 | Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones. | DRP, CSO | SCAQMD, CARB, SCAG, Metro, councils of governments, cities | | <ul style="list-style-type: none"> Medium- and heavy-duty truck EVCSs Miles between EVCSs Sales and registrations of ZEV trucks Percent of drayage truck fleet that is ZEV | Medium to long term (2030–2045) | \$\$\$\$ | SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, SCAQMD Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, SCE Charge Ready Program EVSE rebates, CARB Advanced Technology Freight Demonstration Projects, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CEC Clean Transportation Program, Federal New EV Tax Credit, Federal Commercial EV Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
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| T8.2 | Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. | DRP, CSO | PW, ISD | | <ul style="list-style-type: none"> Number and location of EVCS facilities Total number of medium- and heavy-duty ZEVs registered and operating in unincorporated Los Angeles County | Short term (2024–2030) | \$ | County General Fund, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, SCE Charge Ready Program EVSE rebates for implementation/compliance, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives |
| T8.3 | Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. | DRP, CSO | PW, ISD | | <ul style="list-style-type: none"> Number and location of EVCS facilities Total number of medium- and heavy-duty ZEVs registered and operating in unincorporated Los Angeles County | Short term (2024–2030) | \$\$ | County General Fund, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, SCE Charge Ready Program EVSE rebates for implementation/compliance, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives |
| T8.4 | Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. | DRP | CSO, PW | | <ul style="list-style-type: none"> Number of permits completed | Short to medium term (2024–2035) | \$ | County General Fund, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives |
| T8.5 | Electrify the County medium- and heavy-duty vehicle fleet. | ISD, LASD, Fire, PW, Parks | CSO | | <ul style="list-style-type: none"> Number and percent of medium- and heavy-duty vehicles in the County-owned fleet that are ZEVs | Short to long term (2024–2045) | \$\$\$ | CARB Clean Vehicle Rebate Project public fleet vehicle rebates, County General Fund, SCAQMD Heavy-Duty Zero Emission Vehicle Replacement Grant, Goods Movement Emission Reduction Program, CEC CALeVIP EVSE Rebates, CARB Low Carbon Transportation Investments and Air Quality Improvement Program, CEC Clean Transportation Program, CPUC statewide transportation electrification infrastructure rebate program, Federal New EV Tax Credit, Federal Commercial EV Tax Credit, Federal EV Charging Tax Credit, Federal Inflation Reduction Act EV tax credits and other financial incentives |

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|-----------------------|--|---------|-----------------------------|--|--|------------------------|------|--|
| T9^o | Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment: Phase out the use of gas- and diesel-powered small (≤25 horsepower) off-road equipment and increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment. | | | <p>Increase the fleetwide percentage of off-road fleet and equipment in unincorporated Los Angeles County that are ZEVs to:</p> <ul style="list-style-type: none"> • 20% by 2030 • 50% by 2035 • 95% by 2045 <p>Increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in unincorporated Los Angeles County that are ZEVs to:</p> <ul style="list-style-type: none"> • 50% by 2030 • 75% by 2035 • 100% by 2045 | | | | |
| T9.1 | Partner with the South Coast Air Quality Management District and Antelope Valley Air Quality Management District to increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment. | PW | DRP, CSO, ISD, SCAQMD, CARB | | <ul style="list-style-type: none"> • Off-road vehicle and equipment fleet count, type, and fuel type | Short term (2024–2030) | \$ | CARB Clean Off-Road Equipment Voucher Incentive Project, SCAQMD Surplus Off-Road Opt-In for NOx (SOON) Program, Carl Moyer Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program |
| T9.2 | Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. | PW, DRP | CSO, ISD, SCAQMD, CARB | | <ul style="list-style-type: none"> • Development and adoption of ordinance • Off-road vehicle and equipment fleet count, type, and fuel type | Short term (2024–2030) | \$ | CARB Clean Off-Road Equipment Voucher Incentive Project, SCAQMD Surplus Off-Road Opt-In for NOx (SOON) Program, Carl Moyer Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program |
| T9.3 | Require, to the maximum extent feasible, the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment for County projects. ^M | PW | DRP, CSO, ISD, SCAQMD | | <ul style="list-style-type: none"> • Development and adoption of ordinance • Off-road vehicle and equipment fleet count, type, and fuel type | Short term (2024–2030) | \$\$ | CARB Clean Off-Road Equipment Voucher Incentive Project, SCAQMD Surplus Off-Road Opt-In for NOx (SOON) Program, Carl Moyer Program, CARB Low Carbon Transportation Investments and Air Quality Improvement Program |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
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| Strategy 5: Decarbonize Buildings | | | | | | | | |
| E1 ^a (Core) | Decarbonize Existing Buildings: As the carbon intensity of grid-supplied electricity decreases, decarbonization of the electrical grid must be combined with building decarbonization, shifting the energy load from fossil fuels to carbon-free energy sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to decarbonize applicable existing buildings. A primary alternative to fossil natural gas is renewable electricity supplied by CPA. Biomethane is another alternative to fossil natural gas; however, existing opportunities for widespread use of biomethane are currently limited. The use of other zero-GHG-emission fuel sources for buildings will also be considered. | | | <p>Decarbonize the existing residential building stock:</p> <ul style="list-style-type: none"> • 25% by 2030 • 40% by 2035 • 80% by 2045 <p>Decarbonize the existing nonresidential building stock:</p> <ul style="list-style-type: none"> • 15% by 2030 • 25% by 2035 • 60% by 2045 <p>Require Zero Net Energy (ZNE) for all major renovations:</p> <ul style="list-style-type: none"> • 50% by 2030 • 75% by 2035 • 100% by 2045 <p>Require major renovations to be electric-ready.</p> <p>Adopt building performance standards and reach code(s).</p> <p>Adopt ZNE ordinance.</p> <p>Conduct buildings portfolio analysis and cost feasibility study.</p> | | | | |
| E1.1 | Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require zero-GHG emission appliances. | CSO, PW | DRP | | <ul style="list-style-type: none"> • Energy consumption (gas use vs. electricity use vs. biomethane use) • Number of existing buildings transitioned to all-electric | Short to medium term (2024–2035) | \$ | Funded; CPUC Technology and Equipment for Clean Heating (TECH) and Building Initiative for Low Emissions Development (BUILD) programs, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Federal Inflation Reduction Act |
| E1.2 | Increase alternatives to fossil natural gas uses, such as for cooking, in existing buildings. Establish carbon and GHG intensity limits for existing nonresidential and residential buildings over a certain size. | CSO, DRP | PW, SoCalGas | | <ul style="list-style-type: none"> • Carbon intensity limits/reporting • Biomethane consumption | Short to medium term (2024–2035) | \$ | CPUC TECH program, CPUC BUILD program, CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, California Alternative Energy and Advanced Transportation Financing Authority, California Lending for Energy and Environmental Needs Center, Affordable Housing and Sustainable Communities Program, CPUC Energy Saving Assistance Program, CPA and CALeVIP rebates, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Federal Inflation Reduction Act |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
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| E1.3 | Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. | CSO, DRP | PW, CSO, SCE, CPA | | <ul style="list-style-type: none"> Number of ZNE buildings constructed | Short term (2024–2030) | \$ | County General Fund; CPUC TECH program, CPUC BUILD program, CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, California Alternative Energy and Advanced Transportation Financing Authority, California Lending for Energy and Environmental Needs Center, Affordable Housing and Sustainable Communities Program, CPUC Energy Saving Assistance Program, CPA and CALeVIP rebates, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Federal Inflation Reduction Act |
| E1.4 | Create a plan for phased electrification of County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. ^M | ISD | PW, CSO, SCE, CPA | | <ul style="list-style-type: none"> Number of buildings electrified Energy consumption (gas use vs. electricity use) | Short to long term (2024–2045) | \$\$-\$\$\$\$ | CPUC TECH program, CPUC BUILD program, CARB Greenhouse Gas Reduction Fund, CARB California Climate Investments program, California Alternative Energy and Advanced Transportation Financing Authority, California Lending for Energy and Environmental Needs Center, Affordable Housing and Sustainable Communities Program, CPUC Energy Saving Assistance Program, CPA and CALeVIP rebates, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Federal Inflation Reduction Act |
| E1.5 | Create a comprehensive fund aggregation program to support energy efficiency, decarbonization, and resilience in new and existing affordable housing. | CSO, DRP | DRP, SCE, CPA, RePowerLA Coalition, NRDC | | <ul style="list-style-type: none"> Number of units retrofitted Number of units with renter protections as a result of incentives | Short to medium term (2024–2035) | \$\$\$ | Federal Inflation Reduction Act |
| E1.6 | Create and resource an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing. | CSO, DRP | DRP, SCE, CPA, SoCalGas, RePowerLA Coalition, NRDC | | <ul style="list-style-type: none"> Number of owners served Number of retrofits implemented Number of contractors trained | Short to medium term (2024–2035) | \$\$ | Federal Inflation Reduction Act |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-----------------|---|----------|---------------------------------|--|--|---|--|--|
| E2 ^a | Decarbonize New Development: This measure aims to decarbonize all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. | | | <ul style="list-style-type: none"> Require all applicable new buildings to be zero GHG emission. Provide affordable housing set-aside to offset first cost. <ul style="list-style-type: none"> Residential: 90% zero GHG emission by 2030, 95% by 2035, and 100% by 2045 Nonresidential: 90% zero GHG emission by 2030 (except large industry and possibly food service) 95% by 2035, and 100% by 2045 Require most new residential and nonresidential buildings to be ZNE beginning in 2030. Include affordable housing set-aside. <ul style="list-style-type: none"> Residential: 90% ZNE by 2030 Nonresidential: 90% ZNE by 2030 (except large industry) <p>Require all new development to be electric-ready.</p> | | | | |
| E2.1 | Adopt an ordinance requiring all applicable new buildings to be zero-GHG emission. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. Require all new development to be electric-ready. | PW, DRP | CSO, WDACS | | <ul style="list-style-type: none"> Number of zero GHG emission buildings built Total electricity and natural gas consumption | Short term (2024–2030) | \$ | County General Fund, Home Electrification and Energy Efficiency Rebates, Efficient Building Adoption Grants |
| E2.2 | Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. | PW, DRP | CSO | | <ul style="list-style-type: none"> Number of residential and nonresidential buildings constructed to be ZNE | Short term (2024–2030) | \$ | County General Fund, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Commercial Energy Efficiency Tax Deduction |
| E2.3 | Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments. | PW | CSO, DRP | | <ul style="list-style-type: none"> Number of voluntary CALGreen Tier 2 standards adopted as code amendments | Short term (2024–2030); ongoing with CALGreen updates) | \$ | New funds needed |
| E3 | Other Decarbonization Actions: Reduce the life-cycle carbon intensity of building materials and phase out the use of high-GWP refrigerants. | | | <p>Increase the proportion of biomethane in the utility natural gas mix to:</p> <ul style="list-style-type: none"> 20% by 2030 30% by 2035 80% by 2045 <p>Use low-carbon, carbon-neutral, or negative-carbon concrete for all new construction; identify carbon intensity limit of concrete.</p> <p>Replace high-GWP refrigerants with low-GWP refrigerants:</p> <ul style="list-style-type: none"> 15% by 2030 25% by 2035 50% by 2045 | | | | |
| E3.1 | Work with utilities to incorporate increasing levels of biomethane into the natural gas mix. | CSO, DRP | PW, SoCalGas, LACSD, CalRecycle | | <ul style="list-style-type: none"> Proportion of biomethane in utility natural gas mix | Short to medium term (2024–2035); develop ordinance to be in effect by 2030 | \$\$\$ (TBD based on cost of biomethane) | TBD |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|---|--|----------|------------------------------|--|---|----------------------------------|-------------|---|
| E3.2 | Adopt a concrete code for new construction that limits embodied carbon emissions; specify code requirements of carbon intensity limit for concrete. | PW | CSO, DRP | | <ul style="list-style-type: none"> Quantity of low-carbon concrete used in new construction | Short to medium term (2025–2035) | \$ | TBD |
| E3.3 | Adopt reach code requirements that include performance standards to limit the amount of embodied carbon associated with construction. | CSO | DRP, PW | | <ul style="list-style-type: none"> Quantity of low-carbon materials used in new construction | Short term (2024–2030) | \$ | TBD |
| E3.4 | Develop a refrigerant management program that establishes a phase-out timeline for high-GWP refrigerants in existing buildings, incentivizes industrial equipment replacement, and specifies requirements for new development to use low-GWP refrigerants. | ISD | DRP, U.S. EPA, CARB | | <ul style="list-style-type: none"> Quantity of low-GWP refrigerants charged/used | Short term (2024–2030) | \$ | TBD |
| Strategy 6: Improve Efficiency of Existing Building Energy Use | | | | | | | | |
| E4 ^o | Improve Energy Efficiency of Existing Buildings: Retrofit existing building stock to reduce overall unincorporated Los Angeles County energy use. | | | Reduce building energy use intensity below 2015 levels as follows: <ul style="list-style-type: none"> 20% for residential, 15% for industrial, and 25% for commercial by 2030 25% for residential and industrial and 35% for commercial by 2035 50% for residential, industrial, and commercial by 2045 Adopt building performance standards and reach code(s). | <ul style="list-style-type: none"> | | | |
| E4.1 | Adopt Building Performance Standards for energy efficiency in existing buildings. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.) | ISD, CSO | SoCalREN, SCE, SoCalGas, CPA | | <ul style="list-style-type: none"> Overall energy savings Number of homes or businesses participating | Short to medium term (2024–2035) | \$\$\$ | New funds needed; GoGreen Business Energy Financing program, SoCalREN, SCE On-Bill Financing, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Commercial Energy Efficiency Tax Deduction, Residential Energy Efficiency Tax Credit, Affordable Housing Resilience and Efficiency Investments |
| E4.2 | Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency. | CSO | PW, DRP, SCE, SoCalGas, CPA | | <ul style="list-style-type: none"> Energy use, electricity and gas (Btu) Building size (square footage) | Short term (2024–2030) | \$ | County General Fund, Home Electrification and Energy Efficiency Rebates, Efficient Building Code Adoption Grants, Commercial Energy Efficiency Tax Deduction, Residential Energy Efficiency Tax Credit, Affordable Housing Resilience and Efficiency Investments |
| E4.3 | Convert existing County–owned heat-trapping surfaces to cool or green surfaces. ^M | ISD | CSO, PW | | <ul style="list-style-type: none"> Number and area of cool and green roofs installed | Medium term (2030–2035) | \$\$–\$\$\$ | Project-based funding |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-----------------------------------|--|---------|-----------------------------|--|---|--------------------------------|-------------|---|
| Strategy 7: Conserve Water | | | | | | | | |
| E5 | Increase Use of Recycled Water and Graywater Systems: Increasing the use of alternative water sources (e.g., recycled water, graywater, indirect potable reuse) reduces the demand for water sources with higher energy and carbon intensities (e.g., imported water, groundwater). | | | <p>Increase use of alternative water sources such that Unincorporated Los Angeles County demand is met by recycled water, graywater, or potable reuse:</p> <ul style="list-style-type: none"> • 25% by 2030 • 50% by 2035 • 90% by 2045 <p>Ensure that water demand for agricultural will be recycled or graywater:</p> <ul style="list-style-type: none"> • 30% by 2030 • 50% by 2035 • 80% by 2045 <p>Ensure that water demand for industrial will be recycled or graywater:</p> <ul style="list-style-type: none"> • 30% by 2030 • 50% by 2035 • 80% by 2045 <p>Implement a successful direct potable reuse project by 2025.</p> | | | | |
| E5.1 | Require dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems. | PW | DPH | | <ul style="list-style-type: none"> • Number of graywater systems installed | Long term (2035–2045) | \$ | California Department of Water Resources grants; partial funds secured; additional funds needed |
| E5.2 | Require the use of recycled water and graywater for agricultural purposes where recycled water is available. Identify soil and water conservation best practices for agricultural uses. Work with Los Angeles County Sanitation Districts (LACSD) and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. | PW | DRP, DPH, LACSD, MWD | | <ul style="list-style-type: none"> • Recycled/graywater supply for agricultural purposes | Short to long term (2024–2045) | \$\$–\$\$\$ | New funds needed |
| E5.3 | Require the use of recycled water and graywater for industrial purposes where recycled water is available. Identify water conservation best practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. | PW | DRP, DPH, LACSD, MWD | | <ul style="list-style-type: none"> • Recycled/graywater supply for industrial purposes | Short to long term (2024–2045) | \$\$–\$\$\$ | TBD |
| E5.4 | Require the use of recycled water and graywater for landscaping irrigation purposes where recycled water is available. | PW | DRP, DPH, LACSD, MWD | | <ul style="list-style-type: none"> • Recycled/graywater supply for landscape irrigation | Short to long term (2024–2045) | \$\$–\$\$\$ | TBD |
| E5.5 | Partner with the County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects. | PW, CSO | County water districts, MWD | | <ul style="list-style-type: none"> • Direct potable reuse output volume | Short term (2024–2030) | \$ | TBD |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|--|---|----------------|---------------------------|--|--|----------------------------------|------|---|
| E6^a | Reduce Indoor and Outdoor Water Consumption: Reducing indoor and outdoor water consumption is essential as the state experiences longer and more severe droughts. Not only will water conservation improve regional resiliency, but it will also reduce GHG emissions through the reduction of energy consumption associated with the processing, treatment, and conveyance of water and wastewater. | | | Reduce total water use to less than: <ul style="list-style-type: none"> • 110 GPCD by 2030 • 100 GPCD by 2035 • 85 GPCD by 2045 Reduce outdoor landscaping water use by 10% by 2030, 20% by 2035, and 50% by 2045. Reduce municipal water consumption by 10% by 2030, 20% by 2035, and 50% by 2045. | | | | |
| E6.1 | Develop a water conservation ordinance for new development (public and private). Utilize Leadership in Energy and Environmental Design (LEED) or Sustainable SITES Initiative (SITES) standards. A future ordinance may include a net-zero water requirement for new greenfield development. | CSO | DRP, PW | | <ul style="list-style-type: none"> • Total water use • Water use per capita • Square footage of each type of development (residential, commercial, municipal) built water-neutral • Building size (square footage) | Short term (2024-2030) | \$ | New funds needed |
| E6.2 | Adopt a water efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their water use and demonstrate their pathway to efficiency. | PW, CSO | DRP | | <ul style="list-style-type: none"> • Total water use • Water use per capita • Building size (square footage) | Short to medium term (2024–2035) | \$ | County General Fund |
| E6.3 | Incentivize residents to replace water-intensive landscaping, such as decorative turf, with water-conserving landscaping and/or California native plants through a new ordinance along with education and incentive programs. | PW | CSO, DRP, water districts | | <ul style="list-style-type: none"> • Water use for landscaping | Short term (2024–2030) | \$ | County General Fund |
| E6.4 | Implement strategies to improve water efficiency and increase water conservation at County facilities. ^M | PW, ISD, Parks | CSO, DRP | | <ul style="list-style-type: none"> • Total water use • Water use for landscaping • Indoor water use | Short term (2024–2030) | \$\$ | Project-based funding |
| E6.5 | Integrate water-related programs into the County’s affordable housing preservation program to protect the housing affordability of units and to keep the units fit for their purpose in a changing climate. | PW, DRP | CSO | | <ul style="list-style-type: none"> • Total water use • Water use for landscaping • Indoor water use | Short to medium term (2024–2035) | \$ | Water agency funding and grant programs |
| Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream | | | | | | | | |
| W1^a (Core) | Institutionalize Sustainable Waste Systems and Practices: Undertake actions that result in sustainable waste systems. Responsible and sustainable waste practices are learned behaviors that the County can facilitate through outreach, education, and mandates. Increase diversion of recyclable materials and organics from landfills through ordinances, service improvements, education and outreach, and promotion of product stewardship and markets for material reuse. An increased diversion rate indirectly reduces the demand for virgin materials, which reduces the life-cycle carbon intensity of any resulting products. Through action taken at the County level, waste-conscious habits and thoughtful consumption can become the default. | | | Increase the total unincorporated Los Angeles County waste diversion rate to: <ul style="list-style-type: none"> • 85% by 2030 • 90% by 2035 • 95% by 2045 Reduce the disposal of single-use plastics in landfills. Increase the Construction and Demolition Debris Ordinance to 70% diversion. Increase percentage of construction and demolition debris reused in new projects (private, public). | | | | |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-----------|---|--|--|--|--|--|----------|--|
| W1.1 | Identify best practice waste pricing programs to reduce waste generation to the maximum extent feasible, including but not limited to differential prices for waste based on amount generated in the residential sector and reforms to tipping rate structures. | CSO, PW | LACSD, DPH | | <ul style="list-style-type: none"> Per capita landfill disposal County unincorporated area diversion rate | Short term (2024–2030) | \$\$ | Funded; CalRecycle grants, CEC grants, USDA Water & Waste Disposal Loan & Grant Program |
| W1.2 | Implement, enforce, and expand to the maximum extent feasible the single-use plastics and expanded polystyrene ordinance. | CSO, PW | DPH | | <ul style="list-style-type: none"> Estimated source reduction of single-use plastics and polystyrene County unincorporated area waste generation and diversion rates | Short to long term (2024–2045) Short to long term (2024–2045) | \$–\$\$ | Funded; CalRecycle grants, CEC grants, USDA Water & Waste Disposal Loan & Grant Program |
| W1.3 | Increase the diversion requirements in the County’s Construction and Demolition Debris Ordinance and allow the use of recycled construction materials in new projects. | PW | CSO, DRP, LACSD, CalRecycle | | <ul style="list-style-type: none"> C&D tonnage recycled/diverted from landfill C&D tonnage reused | Short term (2024–2030) | \$ | Funded; CalRecycle grants, CEC grants, USDA Water & Waste Disposal Loan & Grant Program |
| W2 | Increase Organic Waste Diversion: Provide services for diverting yard waste, food scraps, and compostable paper from landfills to beneficial uses, including compost, food rescue, and energy production. | | | Maximize organic waste diversion to support unincorporated Los Angeles County’s overall waste diversion rate goals identified in Measure W1. | | | | |
| W2.1 | Require organic waste generators to properly manage organic waste as per the Organic Waste Disposal Reduction Ordinance. Improve upon and expand existing practices and programs to minimize organic waste disposal in landfills. | PW, Agricultural Commissioner/Weights and Measures | CSO, LACSD, CalRecycle | | <ul style="list-style-type: none"> Per capita organic waste disposal or total organic waste disposed Total Countywide diversion rate | Short to long term (2024–2045) Short to long term (2024–2045) | \$–\$\$ | Funded |
| W2.2 | Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all County operations; establish a contamination monitoring plan for organic waste programs. | PW | Waste collectors, CalRecycle | | <ul style="list-style-type: none"> Organic waste (tons or pounds per capita) disposal tonnage | Short term (2024–2030) | \$\$\$ | New funds needed; Grants from CalRecycle, CEC, CDF, USDA |
| W2.3 | Collaborate with the Los Angeles County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel and other beneficial uses (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste. | PW | CSO, LACSD, CalRecycle | | <ul style="list-style-type: none"> Total energy generation or renewable vehicle fuel created from organic waste | Short to medium term (2024–2035) | \$\$\$\$ | New funds needed; Grants from CalRecycle, CEC, CDF, USDA |
| W2.4 | Provide regional leadership for organic waste processing capacity planning and infrastructure development. | PW | LACSD, CalRecycle | | <ul style="list-style-type: none"> Capacity of organic waste processing facilities Amount of organic waste processed | Medium to long term (2030–2045) | \$\$\$\$ | Funded |
| W2.5 | Enhance and expand the County’s existing Food DROP food donation and redistribution program to divert edible food from landfills and make it available to food insecure communities. | PW | DPH, local businesses, restaurants, grocery stores, and nonprofits | | <ul style="list-style-type: none"> Total tons of edible food donated to food recovery organizations | Short to medium term (2024–2035) | \$\$ | USDA Supplemental Nutrition Assistance Program-Education; grants from CalRecycle, CEC, CDF, and USDA |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|--|--|--|-----------------------|--|---|--------------------------------|-----------|-------------------------|
| Strategy 9: Conserve and Connect Wildlands and Working Lands | | | | | | | | |
| A1 ^a | Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands: Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County. | | | Reduce the amount of natural land converted for urbanized uses: <ul style="list-style-type: none"> • 25% by 2030 (53 hectares conserved annually) • 50% by 2035 (106 hectares conserved annually) • 75% by 2045 (159 hectares conserved annually) Conserve and restore new acres of wildland: <ul style="list-style-type: none"> • 2,000 acres by 2030 • 4,000 acres by 2035 • 6,000 acres by 2045 Manage new acres of wildland for wildfire risk reduction and carbon stock savings: <ul style="list-style-type: none"> • 10,000 acres by 2030 • 20,000 acres by 2035 • 50,000 acres by 2045 | | | | |
| A1.1 | Develop an open space conservation and land acquisition strategy that prioritizes wildlife connectivity to conserve native habitats for carbon sequestration. | DRP | CSO, Parks, DOC, Fire | | <ul style="list-style-type: none"> • Total acres of natural habitats conserved • Easements established; percentage of easements within climate-hazard areas or SEAs | Short to long term (2024–2045) | \$–\$\$\$ | County General Fund |
| A1.2 | Employ ecosystem-appropriate vegetation management of wildlands based on the best available science to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Leverage tools such as the Unified Land Management Plan and the Countywide Community Wildfire Prevention Plan. | Agricultural Commissioner/Weights and Measures, Fire | DRP, CSO, Parks, DOC | | <ul style="list-style-type: none"> • Acres of wildlands managed for wildfire risk reduction and carbon stock savings | Short to long term (2024–2045) | \$–\$\$\$ | Grants through CAL FIRE |
| Strategy 10: Sequester Carbon and Implement Sustainable Agriculture | | | | | | | | |
| A2 | Support Regenerative Agriculture: Promote agricultural practices that sequester carbon and restore soil quality, biodiversity, ecosystems health, and water quality. | | | <ul style="list-style-type: none"> • Reduce the quantity of synthetic fertilizers used/applied. • Increase the number of acres of cover crops using regenerative agricultural techniques. | | | | |
| A2.1 | Create fallow and field resting incentives to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. Create a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture. | Agricultural Commissioner/Weights and Measures | CSO, ISD | | <ul style="list-style-type: none"> • Acres of bare-fallow land • Acres of land using regenerative agricultural techniques | Medium term (2030–2035) | \$–\$\$\$ | TBD |

| ID | STRATEGY/MEASURE/ACTION | LEAD | PARTNERS | PERFORMANCE OBJECTIVES | TRACKING METRICS | TIME FRAME | COST | FUNDING |
|-----------------|--|--|---|---|---|--------------------------------|--------|---|
| A2.2 | Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate. | Agricultural Commissioner/Weights and Measures | CSO, LACSD | | <ul style="list-style-type: none"> Tonnage of compost and/or non-synthetic fertilizer provided to those producing crops Quantity of synthetic fertilizers used/applied Number of acres of cover crops using regenerative agricultural techniques | Short term (2024–2030) | \$\$\$ | TBD |
| A3 ^a | Expand Unincorporated Los Angeles County’s Tree Canopy and Green Spaces: Create an Urban Forest Management Plan to plant trees, increase unincorporated Los Angeles County’s tree canopy cover, add green space, and convert impervious surfaces. Focus tree planting on frontline communities with insufficient tree cover and green spaces. | | | Plant new trees as follows:* <ul style="list-style-type: none"> 130,000 trees by 2030 200,000 trees by 2035 270,000 trees by 2045 Develop an Urban Forest Management Plan. * The performance objectives provided here serve as a general metric and may be refined upon completion of the Urban Forest Management Plan. | | | | |
| A3.1 | Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity. | CSO | DRP, PW, Parks, Agricultural Commissioner/Weights and Measures, DPH, Beaches and Harbors, LASD, Fire, CAL FIRE, ISD | | <ul style="list-style-type: none"> Tree count Tree canopy cover Green space area Area of impervious surface converted Neighborhood selection criteria | Short to long term (2024–2045) | \$\$ | New funds needed; CAL FIRE Urban and Community Forestry Grant |
| A3.2 | Expand tree planting on County property and in the public right-of-way within unincorporated Los Angeles County. Encourage tree planting on private property. | CSO | DRP, PW, Parks, DPH, Beaches and Harbors, LASD, Fire, CAL FIRE, ISD | | <ul style="list-style-type: none"> Number of trees planted Acres of tree canopy cover | Short to long term (2024–2045) | \$\$ | New funds needed; CAL FIRE Urban and Community Forestry Grant |
| A3.3 | Develop an ordinance requiring that all removed native trees be replaced by an equal or greater number of new trees. | CSO | DRP, PW, Parks | | <ul style="list-style-type: none"> Number of trees planted/replaced | Short term (2024–2030) | \$ | TBD |

Abbreviations: AB = Assembly Bill; Beaches and Harbors = Los Angeles County Department of Beaches & Harbors; Btu = British thermal units; BUILD = Building Initiative for Low Emissions Development; CAL FIRE = California Department of Forestry and Fire Protection; CalCAP = California Capital Access Program; CALeVIP = California Electric Vehicle Infrastructure Project; CALGreen = California Green Building Standards; CalRecycle = California Department of Resources Recycling and Recovery; Caltrans = California Department of Transportation; CARB = California Air Resources Board; CCS = capture and carbon and sequestration; CDFA = California Department of Food and Agriculture; CEC = California Energy Commission; CIFIA = Carbon Dioxide Transportation Infrastructure Finance and Innovation; County = County of Los Angeles government; CPA = Clean Power Alliance; CPUC = California Public Utilities Commission; CSO = Chief Sustainability Office; DOC = California Department of Conservation; DOE = U.S. Department of Energy; DPH = Department of Public Health; DRP = Department of Regional Planning; DU = dwelling unit; EV = electric vehicle; EVCS = electric vehicle charging station; EVSE = electric vehicle supply equipment; Fire = Los Angeles County Fire Department; Food DROP = Food Donation & Recovery Outreach Program; GHG = greenhouse gas; GPCD = gallons per capita per day; GWP = global warming potential; HQTA = high quality transit area; ISD = Internal Services Department; kBtu = thousand British thermal units; kW = kilowatts; LA100 = The Los Angeles 100% Renewable Energy Study; LACDA = Los Angeles County Development Authority; LACSD = Los Angeles County Sanitation Districts; LASD = Los Angeles County Sheriff’s Department; LEAP = Local Early Action Planning; LEED = Leadership in Energy and Environmental Design; Metro = Los Angeles County Metropolitan Transportation Authority; MSRC = Mobile Source Air Pollution Reduction Review Committee; MW = megawatts; MWD = Metropolitan Water District of Southern California; MWh = megawatt-hours; NG = natural gas; NO_x = oxides of nitrogen; NRDC = Natural Resources Defense Council; Parks = Los Angeles County Department of Parks and Recreation; PV = photovoltaic; PW = Department of Public Works; SASH = Single-Family Affordable Solar Homes; SB = Senate Bill; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SCE = Southern California Edison; SEA = Significant Ecological Area; SoCalGas = Southern California Gas Company; SoCalRen = Southern California Regional Energy Network; SOON = Surplus Off-Road Opt-In for NO_x; TBD = to be determined; TDM = transportation demand management; TECH = Technology and Equipment for Clean Heating; TIP = Transportation Improvement Program; U.S. EPA = U.S. Environmental Protection Agency; USDA = U.S. Department of Agriculture; VMT = vehicle miles traveled; WDACS = County Workforce Development, Aging and Community Services; ZEV = zero-emission vehicle

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APPENDIX F

2045 Climate Action Plan CEQA Streamlining Checklist

Purpose

The 2045 Climate Action Plan CEQA Streamlining Checklist (referred to herein as the “2045 CAP CEQA Streamlining Checklist”) can be used to provide a voluntary streamlined review process for analyzing the impacts of GHG emissions resulting from proposed discretionary projects that are subject to CEQA.

The 2045 CAP CEQA Streamlining Checklist may be updated administratively to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or local, state, or federal law.

Appendix F Organization

This appendix is organized into the following four sections:

Section F.1: Background

This section describes the rationale for the checklist and explains how it provides the mechanism for projects that wish to streamline environmental review of their GHG impacts using the 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b).

Section F.2: Checklist Instructions

This section includes the submittal requirements for applicants, the applicability of the 2045 CAP CEQA Streamlining Checklist, and instructions for completing the 2045 CAP CEQA Streamlining Checklist.

Section F.3: 2045 CAP CEQA Streamlining Checklist

This section includes the 2045 CAP CEQA Streamlining Checklist itself along with a table for reporting and documenting alternative project emissions reduction measures and additional GHG reductions.

Section F.4: Offsite GHG Reduction Program Framework

This section includes a framework for the County's forthcoming Offsite GHG Reduction Program. This program will be available for project applicants to use as an alternative GHG reduction measure to the CEQA streamlining requirements, by allowing applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County.

F.1 Background

2045 CAP CEQA Streamlining Checklist

The growth projections outlined in the General Plan's Land Use and Housing Elements were used in the 2045 CAP to estimate unincorporated Los Angeles County's future emissions. Therefore, projects can use the 2045 CAP CEQA Streamlining Checklist if they are consistent with the Land Use Element. This consistency allows a project to streamline its analysis of GHG impacts by using the existing programmatic environmental review contained in the certified Final PEIR for the 2045 CAP. In doing so, pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to climate change resulting from the project's GHG emissions may be determined not to be cumulatively considerable. This approach is consistent with the recommendations of the California Air Resources Board (CARB) in the 2022 *Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) that "CEQA-qualified CAPs" can allow eligible projects to streamline their determination of significance for GHG emissions.¹ It is also consistent with the Association of Environmental Professionals Climate Change Committee's best practices for tiering from qualified GHG reduction plans that demonstrate substantial progress toward meeting the next milestone statewide planning reduction target (i.e., a 40 percent reduction below 1990 levels by 2030 as set forth by SB 32).²

This 2045 CAP CEQA Streamlining Checklist provides a mechanism for projects to specifically identify "those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project" per Section 15183.5(b)(2) of the CEQA Guidelines.

GHG emissions associated with the construction of projects, including demolition and decommissioning activities, are generally orders of magnitude lower than operational GHG emissions. This is primarily because construction emissions are typically short in duration compared to the project's overall lifetime. Typically, construction GHG emissions are amortized over 30 years and added to a project's 30-year lifetime emissions total; after this amortization, construction GHG emissions usually represent a small fraction of a project's total annual

¹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

² Association of Environmental Professionals. 2016. *Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. October 18, 2016. Available: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf.

emissions. It is generally difficult to enforce low-emission construction equipment because of the limited availability of zero-emission and near-zero-emission construction equipment, along with contracting requirements. In addition, the 2045 CAP quantifies GHG emissions from off-road construction activity at the unincorporated Los Angeles County level; these emissions are accounted for in the 2045 CAP's ability to achieve the 2030, 2035, and 2045 targets.

The 2045 CAP CEQA Streamlining Checklist also requires the use of electric and zero-emission construction equipment during project construction to the maximum extent feasible, to align with Measure T9. Therefore, construction emissions can be assessed qualitatively as part of related CEQA GHG emissions analysis. However, some projects may have long construction periods or entail substantial excavation and grading that could result in construction-related GHG emissions that may be considered significant. Thus, the County retains the discretion on a project-by-project basis to consider whether a project's construction-related GHG emissions could be cumulatively considerable and require a more detailed quantitative CEQA analysis and mitigation of GHG emissions.

Projects that elect not to use the 2045 CAP CEQA Streamlining Checklist for CEQA streamlining must prepare a comprehensive project-specific analysis of GHG emissions. The analysis must quantify existing and projected GHG emissions and it is strongly encouraged that the project incorporate all CEQA streamlining requirements in this 2045 CAP CEQA Streamlining Checklist, although this is not required. The 2045 CAP CEQA Streamlining Checklist may be updated to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or to local, state, or federal law.

2045 CAP Appendix B, *Emissions Forecasting and Reduction Methods*, provides the quantitative basis for CEQA streamlining requirements. This document demonstrates how, based on substantial evidence,³ implementing these CEQA streamlining requirements on a project-by-project basis will collectively achieve the 2045 CAP's target emissions level for projects by 2030 and 2035, as required by CEQA Guidelines Section 15183.5(b)(1)(D).

Alignment with the 2022 Scoping Plan

Appendix D of CARB's 2022 Scoping Plan provides guidance for local governments and lead agencies for how local climate action planning can support the State of California's climate goals.⁴ CARB reiterates that a CAP that has been adopted through the CEQA review process and meets the criteria specified in CEQA Guidelines Section 15183.5(b) for a "plan for the reduction of greenhouse gas emissions"—such as the 2045 CAP—is a "CEQA-qualified CAP" that can allow eligible projects to streamline their determination of significance for GHG emissions.

³ CEQA Guidelines Section 15384 defines *substantial evidence* as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

⁴ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

Streamlining CEQA GHG analysis for future projects by demonstrating consistency with a CAP involves evaluating whether a project demonstrates consistency with “all applicable GHG reduction measures identified in the CAP.” CARB notes that such consistency can be determined by using CAP compliance checklists, which can be “included as part of the proposed project’s CEQA analysis documenting the project’s consistency with the CEQA-qualified CAP.”

The 2045 CAP CEQA Streamlining Checklist is therefore consistent with CARB’s guidance in the 2022 Scoping Plan as a valid way for discretionary projects to streamline their analysis of GHG impacts.

Recommended Project Attributes for Residential and Mixed-Use Projects

Appendix D of the 2022 Scoping Plan includes a list of “key project attributes” for residential and mixed-use projects. CARB states that if a project incorporates these attributes, the project would “accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals” and would be “**clearly** consistent with the State’s climate goals.” Further, such projects would be “consistent with the Scoping Plan or other plans, policies, or regulations adopted for the purposes of reducing GHGs” and that therefore, “the GHG emissions associated with such projects may result in a less-than-significant GHG impact under CEQA.”

Alternative Project Emissions Reduction Measures and Offsite GHG Reduction Programs

As discussed below under *Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions*, project applicants may employ alternative GHG emissions reduction measures to serve as replacements for any CEQA streamlining requirement not feasible to implement at the project-level. Such replacement measures must meet specific criteria and be supported by substantial evidence that the measure would achieve the same or greater level of GHG emissions reductions as the CEQA streamlining requirement that it replaces.

CARB supports the idea of “off-site GHG mitigation” in Appendix D of the 2022 Scoping Plan for projects that have maxed out their on-site GHG reduction actions: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement **local**, off-site direct GHG reduction strategies.”⁵

As discussed further below, Action ES5.4 of the 2045 CAP would establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment.

CARB cautions that such off-site measures must directly “offset” a project’s GHG emissions and must not be unrelated off-site measures that would occur independently of the proposed project. Lead agencies and project applicants must provide substantial evidence that a specific off-site mitigation measure is not otherwise required by law or regulation and would not have

⁵ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

occurred “**but for** the requirement to mitigate a project’s GHG impacts.” CARB goes on to state the following:

There has been concern that GHG emission reductions from off-site GHG mitigation measures... may double count GHG emission reductions from California’s Cap-and-Trade program. However, off-site mitigation measures, such as EV [electric vehicle] charging or building efficiency retrofits, are viable options for mitigation under CEQA and would not be double counted, provided they are not otherwise required by law or regulation and would not have happened but for the mitigation requirements of the project. If the mitigation would have been implemented or required through another statute, regulation, existing local program, or requirement other than the project it is mitigating, then the project being mitigated may not also claim credit for the reductions.

F.2 Checklist Instructions

2045 CAP CEQA Streamlining Checklist Submittal Requirements

The 2045 CAP CEQA Streamlining Checklist shall accompany the project application for all projects and plans proposed within unincorporated Los Angeles County’s land use authority that are subject to CEQA. The 2045 CAP CEQA Streamlining Checklist is designed to assist in identifying the GHG emissions reduction actions and other applicable sustainability-focused requirements specific to a proposed project. However, it may be necessary to supplement the completed 2045 CAP CEQA Streamlining Checklist with supporting materials, calculations, or certifications to demonstrate compliance with all the applicable CEQA streamlining requirements in the 2045 CAP CEQA Streamlining Checklist. The 2045 CAP CEQA Streamlining Checklist shall be included in the respective project conditions of approval.

2045 CAP CEQA Streamlining Checklist Applicability

The 2045 CAP CEQA Streamlining Checklist allows for streamlined project-specific CEQA GHG analysis. The 2045 CAP CEQA Streamlining Checklist is only required if a project applicant wants to use CEQA streamlining for GHG impacts; it is not required if a project-level environmental analysis of GHG impacts is conducted. As such, the 2045 CAP CEQA Streamlining Checklist is voluntary. The 2045 CAP CEQA Streamlining Checklist cannot be used for projects requiring a General Plan amendment associated with land use density increases. Ministerial projects and projects that otherwise are exempt from CEQA are deemed to be consistent with the 2045 CAP, and no further review is necessary, with the exception of the residential infill categorical exemption (CEQA Guidelines Section 15195), for which projects are required to demonstrate consistency with the 2045 CAP through the 2045 CAP CEQA Streamlining Checklist if the applicant elects to use CEQA streamlining for GHG impacts. All projects using the 2045 CAP CEQA Streamlining Checklist for CEQA streamlining must demonstrate consistency with the General Plan growth projections. **If a project is not consistent with the General Plan growth projections, then the 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining.**

2045 CAP CEQA Streamlining Checklist Instructions

Project applicants shall complete the following **four steps** to demonstrate compliance with the 2045 CAP for a proposed project.

Step 1. Demonstrate consistency with the General Plan growth projections (**Table F-1**).

Step 2. Determine whether the project screens out of certain CEQA streamlining requirements (Table F-1).

Step 3. Complete the 2045 CAP CEQA Streamlining Checklist (Table F-1).

Step 4. Identify alternative project emissions reduction measures and additional GHG reductions (**Table F-2**), as needed.

All projects must complete **Step 1: Demonstrate Consistency with the General Plan Growth Projections** and **Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements**. Projects that do not meet the screening criteria must complete **Step 3: Complete the 2045 CAP CEQA Streamlining Requirements**. Projects that cannot meet all CEQA streamlining requirements shown in Table F-1 must also complete **Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions** (Table F-2) to describe alternative GHG emissions reduction measures that serve as replacements to any CEQA streamlining requirements not met by the project.

The following process, illustrated in **Figure F-1**, explains how to demonstrate consistency of a project with the 2045 CAP's GHG emissions reduction measures and actions, and thereby streamline the project's GHG impacts analysis by tiering from the certified Final PEIR for the 2045 CAP.

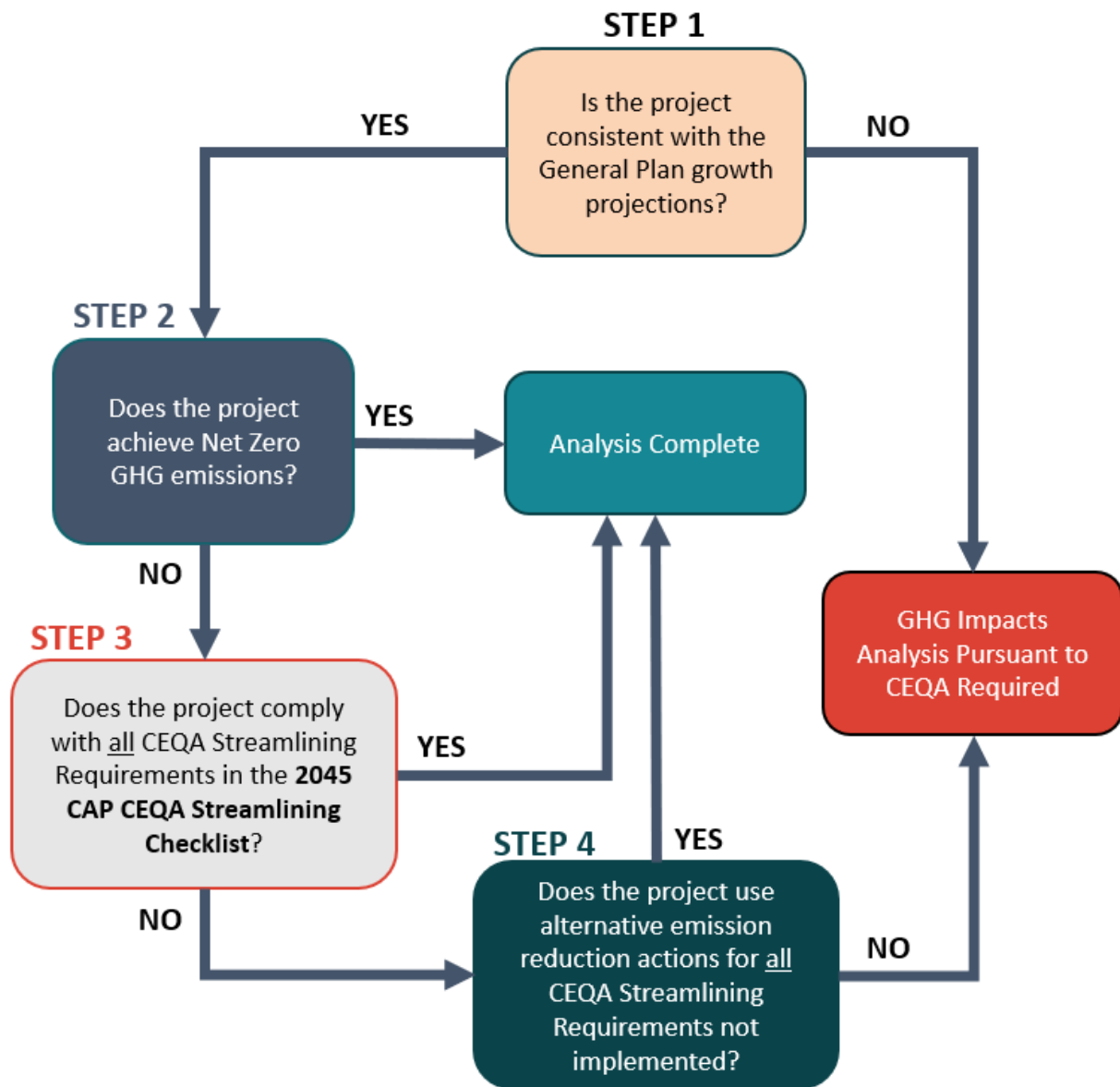


Figure F-1: Determining Consistency with the 2045 CAP for CEQA Streamlining

Step 1: Demonstrate Consistency with the General Plan Growth Projections

All projects must demonstrate consistency with the General Plan growth projections. **If a project is not consistent with the General Plan growth projections, then the 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining.** Complete the *General Plan Consistency* section of **Table F-1, General Plan and CEQA Streamlining Requirement Checklist**, below.

The options for determining General Plan consistency (included in Table F-1) are as follows:

- Is the proposed project consistent with the General Plan growth projections? If yes, move to **Step 2** below. If no, the proposed project may not streamline its GHG impacts analysis by using the 2045 CAP's EIR, and instead must prepare a comprehensive project-specific analysis of GHG emissions and impacts pursuant to CEQA. Such projects are also encouraged to incorporate all the CEQA streamlining requirements in the 2045 CAP CEQA Streamlining Checklist.

Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements

Certain projects may screen out of compliance with certain CEQA streamlining requirements contained in Table F-1 if such projects meet specific criteria. These criteria are designed to ensure high efficiency and low GHG emissions and describe projects that would generally comply with the 2045 CAP.

2045 CAP CEQA Streamlining Checklist Screening Criterion: Projects may skip the *Demonstrate Compliance with the CEQA Streamlining Requirements* section of Table F-1 below if they meet the following criterion:

- If the project would achieve **net-zero GHG emissions**, the project is considered to comply with the 2045 CAP and the analysis is complete.

Net-zero GHG emissions means that the project's GHG emissions from construction and operational activities occurring at full buildout would result in zero total GHG emissions on an annual basis. In other words, all GHGs emitted the atmosphere during construction and operation by a project are balanced completely by GHG sequestration and removal over each calendar year period. Construction GHG emissions should be amortized for the project (typically 30 or 40 years) and added to the annual full buildout operational emissions to determine total annual emissions. Net-zero GHG emissions for a project does not consider GHG emissions from existing conditions or existing uses at the project site. For example, if a project emits 1,500 metric tons of carbon dioxide equivalent (MTCO₂e) per year for both construction and operations but includes the planting of enough new trees to sequester 1,500 MTCO₂e per year, the project would achieve net-zero GHG emissions.

To demonstrate that the project achieves net-zero GHG emissions, the applicant must submit a comprehensive quantitative project-specific analysis of all GHG emissions, sinks, and removals from construction and full buildout operations, consistent with CEQA guidelines and standard practice for modeling GHG emissions for projects. If the project meets this criterion, the project does not need to complete **Table F-1** below and the analysis is complete.

Transportation Screening Criteria: Projects may skip CEQA streamlining requirements #3, #4, #5, #11, and #12 of the *Demonstrate Compliance with the CEQA Streamlining Requirements*

section of Table F-1 below if they meet the following criteria (based on the 2020 Los Angeles County Department of Public Works Transportation Impact Analysis Guidelines⁶):

1. For development projects⁷:
 - a. If the project does not have a retail component, and the project generates a net increase of less than 110 daily vehicle trips,⁸ then it screens out.
 - b. If the project has a retail component, and it contains retail uses that do not exceed 50,000 square feet of gross floor area,⁹ then it screens out.
 - c. If the project has a residential component, and 100 percent of the units, excluding manager's units, are set aside for lower income households,¹⁰ then it screens out.
 - d. If the project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor¹¹ and meets all of the following criteria, then it screens out:
 - i. Has a Floor Area Ratio greater than 0.75.¹²
 - ii. Provides less parking than required by the Los Angeles County Code.¹³
 - iii. Is consistent with the Southern California Associated of Governments' Regional Transportation Plan/Sustainable Communities Strategy.¹⁴
 - iv. Does not replace residential units set aside for lower income households with a smaller number of market-rate residential units.
2. For transportation projects:¹⁵
 - a. If the project would not include the addition of through traffic lanes on existing or new highways, including general-purpose lanes, high-occupancy vehicle lanes, peak-period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than 1 mile in length designed to improve roadway safety),¹⁶ then it screens out.
 - b. If the project would reduce roadway capacity and VMT,¹⁷ then it screens out.

⁶ Los Angeles County Department of Public Works. 2020. *Transportation Impact Analysis Guidelines*. July 2020. Available: <https://dpw.lacounty.gov/traffic/trafficreportmsg.cfm>. Accessed February 2022.

⁷ The Transportation Impact Analysis (TIA) Guidelines provide a list of development project types, which include residential, office, manufacturing, institutional, and retail project types. For a complete list, see page 11 of the TIA Guidelines.

⁸ As referenced in: Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

⁹ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁰ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹¹ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹² Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹³ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁴ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁵ The TIA Guidelines describe transportation projects as projects that would increase vehicular/roadway capacity.

¹⁶ As noted above, the TIA Guidelines describe transportation projects as projects that would increase vehicular/roadway capacity.

¹⁷ A list of transportation projects that are not likely to lead to a substantial or measurable increase in vehicle miles travelled are included in the County's TIA Guidelines, pp. 17–19.

If the project meets the above criteria, it may skip certain transportation portions of the 2045 CAP CEQA Streamlining Checklist (see Table F-1 for details).

Step 3: Demonstrate Compliance with the 2045 CAP CEQA Streamlining Requirements

Table F-1 identifies the CEQA streamlining requirements for projects. Projects must demonstrate compliance with the 2045 CAP CEQA streamlining requirements listed in Table F-1 or document why the requirements are not applicable or are infeasible.¹⁸ The corresponding 2045 CAP measures and actions are indicated in the table to provide additional context. The full text of the 2045 CAP measures and actions is provided in the 2045 CAP (see Chapter 3 and Appendix E).

All applicants shall complete the following steps for the *Transportation, Building Energy and Water, Waste, and Agriculture, Forestry, and Other Land Use (AFOLU)* sections of **Table F-1** below (unless the project meets the transportation screening criteria identified in Step 1 above, in which case the project may skip completion of certain sections of the *Transportation* section of Table F-1):

- Step 3a.** Review the CEQA streamlining requirements described in the column titled “2045 CAP Streamlining Requirement.”
- Step 3b.** Use the check boxes in the column titled “Project Complies” to indicate whether the “Project Complies,” the requirement is “Not Applicable,” or the “Project Does Not Comply and Alternative Measure Proposed.”
- Step 3c.** Provide a qualitative analysis of the proposed project’s compliance with the CEQA streamlining requirements in the column titled “Description of Project Measure(s)/Documentation of Compliance.” This will be the basis for the CEQA analysis to demonstrate compliance with the 2045 CAP, and by extension, with SB 32. The qualitative analysis should provide:
 - i. A description of which streamlining requirements are included as part of the proposed project; or
 - ii. A description of why the streamlining requirement is not applicable to the proposed project; or
 - iii. A description of why the streamlining requirements are infeasible. If applicants select “Project Does Not Comply” or “Alternative Measure Proposed,” they must complete Table F-2 to document what alternative project measures will be implemented to achieve a similar level of GHG reduction and how those GHG emissions reduction estimates were calculated.
- Step 3d.** Provide specific project design criteria and/or reporting metrics to support the proposed project’s compliance with each CEQA streamlining requirement. Specific information is requested for each respective item in the 2045 CAP CEQA Streamlining Checklist.

Regarding item #2 above, the project applicant can only select “Not Applicable” if the requirement is not relevant to the project. The project applicant should only select “Project Does Not Comply and Alternative Measure Proposed” if it is infeasible, as defined by the CEQA Guidelines, for the

¹⁸ Please note that the CEQA streamlining requirements are not mitigation measures as defined by CEQA.

project to comply with the checklist requirement. Sufficient documentation of such infeasibility must be supplied to the County to support such a determination. The County retains ultimate discretion for determining the feasibility of the checklist requirement for the proposed project. Further, if “Project Does Not Comply and Alternative Measure Proposed” is selected for a specific checklist requirement, then the project applicant **must** identify an alternative measure to achieve the same or greater level of GHG emissions reduction as the CEQA streamlining requirement with which the project does not comply.

If the project applicant cannot fully complete these requirements, then the 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining of GHG emissions impacts. See the *Projects That Are Not Eligible for CEQA Streamlining* section for additional instructions.

The 2045 CAP CEQA streamlining requirements are listed as either “Tier 1” or “Tier 2.” These two levels are defined as follows:

Tier 1: Required for all discretionary projects in order to use CEQA streamlining for GHG impacts.

Tier 2: Encouraged for all discretionary projects. Although these measures are not required, projects are strongly encouraged to implement them. In Table F.1 below, these voluntary items are colored with gray shading.

In general, Tier 1 requirements were quantified in the 2045 CAP for GHG emissions reductions needed to achieve the 2030, 2035, and 2045 emissions reduction targets. Because these measures were quantified, they would be required for the 2045 CAP to achieve its full emissions reduction potential. Some Tier 1 measures were not quantified, but they either are required through other code or ordinance (such as compliance with the Transportation Demand Management Ordinance) or are deemed essential for the overall success of the 2045 CAP. Tier 2 requirements were identified as supporting actions but are not deemed essential for the overall success of the 2045 CAP.

Some Tier 1 and Tier 2 requirements point to future County regulations or ordinances that have not yet been developed, such as the forthcoming building decarbonization ordinance. In these instances, projects using the Checklist must only comply with currently adopted ordinances and requirements at the time of project approval.

The 2045 CAP CEQA Streamlining Checklist includes the following Tier 1 and Tier 2 requirements, organized by strategy area:

Energy Supply

1. Tier 1: Sunset Oil and Gas Operations
2. Tier 1: Utilize 100% Zero-Carbon Electricity

Transportation

3. Meets Transportation Screening Criteria
4. Tier 1: Increase Density Near High-Quality Transit Areas
5. Tier 1: Incorporate Bicycle and Pedestrian Infrastructure
6. Tier 1: Comply with the County Transportation Demand Management (TDM) Ordinance

7. Tier 1: Comply with the County's Transportation Impact Guidelines
8. Tier 1: Incorporate Electric Vehicle Charging Infrastructure
9. Tier 1: Decarbonize Trucks
10. Tier 1: Incorporate Zero-Emission Technologies for Off-Road Vehicles & Equipment
11. Tier 1: Electrify County Fleet Vehicles (for municipal projects only)
12. Tier 2: Achieve a High Jobs/Housing Balance
13. Tier 2: Encourage Transit, Active Transportation, and Alternative Modes of Transportation
14. Tier 2: Implement Parking Limitations

Building Energy and Water

15. Tier 2: Decarbonize Existing Buildings
16. Tier 2: Decarbonize New Buildings
17. Tier 1: Increase Building Energy Efficiency
18. Tier 1: Implement Water Use Efficiency and Water Conservation
19. Tier 2: Reduce the Life-Cycle Carbon Intensity of Building Materials and Phase Out the Use of High-Global Warming Potential (GWP) Refrigerants
20. Tier 2: Use Energy Storage and Microgrids
21. Tier 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture

Waste

22. Tier 1: Compost Organic Materials
23. Tier 1: Recycle Recyclable Materials
24. Tier 2: Incorporate On-site Composting, Mulching, and/or Anaerobic Digestion

Agriculture, Forestry, and Other Land Use

25. Tier 1: Incorporate Tree Plantings and Expand Urban Forest Cover
26. Tier 2: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands
27. Tier 2: Implement Regenerative Agricultural Practices

2045 CAP Appendix B, *Emissions Forecasting and Reduction Methods*, provides the quantitative basis for the CEQA streamlining requirements.

Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions

Projects that propose alternative GHG emissions reduction measures to those identified in Table F-1 or propose to include additional GHG emissions reduction measures beyond those described in Table F-1 shall provide a summary explanation of the proposed measures and demonstrate

GHG reductions achievable through the proposed measures.¹⁹ Documentation for these alternative or additional project measures shall be documented in **Table F-2, Applicant Proposed Alternative Project Emissions Reduction Measures**. Any applicants who select “Project Does Not Comply and Alternative Measure Proposed” in Table F-1 must complete the following steps for Table F-2.

- Step 4a.** In the column titled “Description of Alternative Measure,” provide a qualitative description of what measure will be implemented, why it is proposed, and how it will reduce GHG emissions.
- Step 4b.** In the column titled “Description of GHG Reduction Estimate,” demonstrate how the alternative project measure would achieve the same or greater level of GHG emissions reductions as the CEQA streamlining requirement that it replaces. Documentation and calculation files must be attached separately.

An example alternative project measure may be installing additional EV charging infrastructure beyond what is required by the California Green Building Standards Code (CALGreen Code), County ordinance, or requirements in the forthcoming Zero Emission Vehicle Master Plan, to support zero-emission vehicles beyond what is specified in the 2045 CAP’s performance objectives for Measure T6 (Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales). The applicant would then demonstrate how this would achieve the same or greater level of GHG emissions reductions as the checklist requirement for which it serves as an alternative.

Carbon offset credits are not permitted to be used as alternative project emissions reduction measures.

Guidance for Quantifying GHG Reductions from Alternative Measures

In order to use alternative GHG emissions reduction measures to replace a CEQA streamlining requirement in Table F-1 below, project applicants must use the three-step process outlined below to quantitatively demonstrate how the alternative project measure would achieve the same or greater level of GHG emissions reductions as the CEQA streamlining requirement (or requirements) that it replaces.

Project applicants should follow these three steps:

- Step 4c.** Prepare a detailed quantified GHG emissions inventory for the project taking into consideration all GHG-reducing project features and 2045 CAP CEQA Streamlining Checklist items included as part of the project (including proposed mitigation measures, project design features, strategies being implemented, and other County requirements).

Project applicants shall prepare a detailed quantified GHG emissions inventory for the project taking into consideration all GHG-reducing project features and CEQA streamlining requirements included as part of the project (including proposed mitigation measures, project design features, strategies being implemented, and other County requirements), **except** for the alternative GHG emissions reduction measures proposed by the applicant to replace any Tier 1 CEQA streamlining requirement (as

¹⁹ Please note that the alternative GHG emissions reduction measures are not mitigation measures as defined by CEQA.

described in Step 4e). Applicants should use the California Emissions Estimator Model (CalEEMod), CARB's Emission FACTor model (EMFAC),²⁰ the California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, and other commonly accepted GHG modeling methods and protocols.

Step 4d. For each Tier 1 CEQA streamlining requirement that the project will not meet, include a quantified calculation of the additional GHG emission reductions that would have occurred had the project implemented the Tier 1 Checklist streamlining requirement.

Project applicants shall, for all Tier 1 CEQA streamlining requirements that the project will not meet, a quantified calculation of the additional GHG emission reductions that would have occurred had the project implemented those Tier 1 CEQA streamlining requirements. In order to do this, applicants shall prepare a project model run assuming the implementation of all Tier 1 CEQA streamlining requirement that the project will not meet. Applicants should then compare the project's GHG emissions from this scenario with the project's GHG emissions from Step 4c above. The difference in GHG emissions between the two scenarios represents the GHG emission reductions that would have occurred had the project implemented all Tier 1 CEQA streamlining requirements; this is the amount of GHG emissions required to be reduced in total by the alternative GHG emissions reduction measures.

Step 4e. Propose an alternative measure (or set of measures) and demonstrate quantitatively that the alternative measures would achieve a GHG emission reduction equivalent to the GHG emission reduction that would have resulted from complying with the Tier 1 CEQA streamlining requirement.

Project applicants shall provide a quantified measure or set of measures that closes the gap between the two scenarios as quantified in Step 4c and Step 4d. In order to do this, applicants shall prepare a project model similar to Step 4c but include all alternative GHG emissions reduction measures proposed by the applicant. The resulting GHG emissions from this model run must equal or be less than the GHG emissions resulting from the project model run in Step 4d above which assumes the implementation of all Tier 1 CEQA streamlining requirements. In other words, the GHG emission reductions achieved by the alternative measures must meet or exceed the GHG emission reductions achieved by the Tier 1 CEQA streamlining requirements.

Project applicants shall submit documentation to the City demonstrating all three steps above. This can include model run inputs and/or outputs, excel calculation files, or other documentation of the emission calculations.

Potential alternative GHG emissions reduction measures to be considered include, but are not be limited to, measures recommended in the South Coast Air Quality Management District's latest CEQA Air Quality Guidelines, the CARB Scoping Plan (December 2022, as may be revised), the CAPCOA *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (December 2021, as may be revised), the

²⁰ California Air Resources Board. 2022. EMFAC2021 Model. Version v1.0.2. Available: <https://arb.ca.gov/emfac/>. Accessed June 2023.

CAPCOA CalEEMod, the California Attorney General's *Mitigation for Greenhouse Gas Emissions* guidance, and Reference Guides on Leadership in Energy and Environmental Design (LEED) published by the U.S. Green Building Council.

As for any project design features or mitigation measures implemented via the County's project approval and CEQA review process, the project applicant shall implement all alternative GHG emissions reduction measures proposed. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits and implemented during construction. For operational GHG reduction measures to be incorporated into the project, the measures shall be implemented on ongoing basis.

Projects That Are Not Eligible for CEQA Streamlining

In some cases, a project may not be able to comply with all of the 2045 CAP CEQA streamlining requirements. This may be because the project is inconsistent with the General Plan's growth projections as described in Step 1. Or a project may not be able to feasibly incorporate all CEQA streamlining requirements as identified in Table F-1 and discussed in Step 3; such a project may further be unable to adequately identify alternative project measures to achieve a similar level of GHG reduction to each CEQA streamlining requirement with which a project cannot comply. Such projects are not eligible to streamline environmental review of their GHG impacts using the 2045 CAP's PEIR and may be required to prepare a comprehensive project-specific analysis of GHG emissions pursuant to the CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist).

A comprehensive project-specific analysis of GHG emissions must be prepared for any project that elects not to use the Checklist for CEQA streamlining by completing Table F-1 and (if applicable) Table F-2. Such an analysis shall quantify existing and projected GHG emissions and evaluate potential impacts pursuant to the CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist). It is strongly encouraged that the project incorporate all the CEQA streamlining requirements in the 2045 CAP CEQA Streamlining Checklist, though this is not required.

F.3 2045 CAP CEQA Streamlining Checklist

Table F-1, *General Plan and 2045 CAP CEQA Streamlining Checklist*, allows the applicant to demonstrate compliance with the 2045 CAP's GHG emissions reduction measures and actions. This table addresses **Step 1: Demonstrate Consistency with the General Plan Growth Projections**; **Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements**; and **Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements**. This checklist must be completed for all applicable projects electing to streamline their CEQA GHG analysis.

Table F-2, *2045 CAP Greenhouse Gas Emissions Reduction Alternative Measures*, allows the project applicant to document alternative GHG emissions reduction measures used to demonstrate compliance with the Table F-1 CEQA streamlining requirements. This table addresses **Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions**. This checklist is required only for projects that propose to use alternative GHG emissions reduction measures.

Table F-1: General Plan and 2045 CAP CEQA Streamlining Checklist

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|--|--|
| Step 1: Demonstrate Consistency with the General Plan Growth Projections | | |
| <p>1. The Project is Consistent with the General Plan Growth Projections</p> <p>The growth projections included in the General Plan were used in the 2045 CAP to estimate unincorporated Los Angeles County GHG emissions over time. Therefore, projects must be consistent with the General Plan to comply with the CEQA streamlining requirements. To determine a project’s consistency with the General Plan growth projections, please answer the following question and provide an explanation with supporting documentation.</p> <p>Is the proposed project consistent with the existing land use designation of the Land Use Element and the 2021 Housing Element Update?</p> <p>If “Yes,” proceed to Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements below.</p> <p>If “No,” the proposed project may not streamline its GHG impacts analysis by using the 2045 CAP’s EIR and must prepare a comprehensive project-specific analysis of GHG emissions and impacts pursuant to CEQA.</p> | <p><i>Describe how the project is consistent with the General Plan growth projections. Provide additional supporting documentation as an attachment as needed.</i></p> <p><i>OR,</i></p> <p><i>Explain why the project is not consistent with the General growth projections, and whether the project would include a General Plan amendment. If the project includes a General Plan amendment, STOP HERE.</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| Step 2: Determine Whether the Project Screens Out of the CEQA Streamlining Requirements | | |
| <p>Certain projects may screen out of the 2045 CAP CEQA Streamlining Requirements if they meet the following screening criterion.</p> <p>Does the project achieve net-zero GHG emissions? The project must conduct a comprehensive project-specific analysis of all GHG emissions, sinks, and removals, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for projects, to demonstrate that the project achieves net-zero GHG emissions.</p> <p>If “Yes,” the project would comply with the CEQA streamlining requirements and no additional analysis is needed (no project-specific GHG impact analysis would be required).</p> <p>If “No,” proceed to Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements below.</p> | <p><i>If “Yes,” attach to this checklist the estimated project GHG emissions. Provide supporting calculation files and documentation for this analysis. If the proposed project is determined to result in net-zero GHG emissions, STOP HERE.</i></p> <p><i>If “No,” proceed to Step 3 below.</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements | | |
| Energy Supply | | |
| <p>1. TIER 1: Sunset Oil and Gas Operations For any project involving the decommissioning, replacement, retrofit, or redesign of infrastructure or facilities associated with the oil and gas industry, including energy generation (i.e., cogen), the project must:</p> <ul style="list-style-type: none"> A) Comply with the Oil Well Ordinance (Title 22). B) Reduce fossil fuel–based emissions by at least 80% compared to existing conditions. C) If the project site includes existing active and abandoned oil wells, examine all wells for fugitive emissions of methane. Reduce such existing emissions by a minimum of 80%. D) To reduce any residual fossil fuel–based emissions generated by the project, incorporate carbon removal technologies including direct air capture and carbon and sequestration, as feasible. <p>Supports 2045 CAP Measures (and Actions): ES1 (ES1.1, ES1.2, ES1.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below).</i> <i>IN ADDITION, provide documentation of the project’s ability to reduce fossil fuel–based emissions, including fugitive methane emissions.</i> <i>Provide the number of oil and gas operations/wells closed. Provide documentation of any carbon removal technologies incorporated at the project site.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>2. TIER 1: Utilize 100% Zero-Carbon Electricity The project must utilize 100% zero-carbon electricity on-site. The project must comply with one of the following options:</p> <ul style="list-style-type: none"> A) Install on-site renewable energy systems or participate in a community solar program to supply 100% of the project’s estimated energy demand to the maximum extent feasible. B) Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until SCE provides 100% carbon-free electricity for all accounts by default. C) Participate in the Clean Power Alliance at the Clean Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until CPA provides 100% carbon-free electricity for all accounts by default. D) A combination of #1, #2, and #3 above such that 100% of the project’s electricity consumption is supplied by zero-GHG emission sources of power generation, whether by utilities or by on-site electricity generation or both. <p>Supports 2045 CAP Measures (and Actions): ES2 (ES2.1, ES2.2), ES3 (ES3.1, ES3.2, ES3.3, ES3.4, ES3.5, ES3.6)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i> <i>IN ADDITION, provide the project’s anticipated electricity demand, the project’s participation and opt-out rates for SCE’s Green Rate and CPA’s Clean Rate electricity rate options used by tenants; and the total kW of solar PV panels installed at the project site.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| Transportation | | |
| <p>3. Meets Transportation Screening Criteria</p> <p>For <u>development projects</u>, does the project:</p> <p>A) have no retail component and generate a net increase of less than 110 daily vehicle trips?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to item (B) below.</p> <p>For <u>development projects</u>, does the project:</p> <p>B) have a retail component and contains retail uses that do not exceed 50,000 square feet of gross floor area?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below. If the project contains retail and is mixed use, proceed to item (C) below.</p> <p>If “No,” proceed to item (C) below.</p> <p>For <u>development projects</u>, does the project:</p> <p>C) have a residential component and 100% of the units, excluding manager’s units, are set aside for lower income households?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below. If the project contains retail and is mixed use, proceed to item (D) below.</p> <p>If “No,” proceed to item (D) below.</p> <p>For <u>development projects</u>:</p> <p>D) Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor <u>and</u>:</p> <ul style="list-style-type: none"> i. has a Floor Area Ratio greater than 0.75? ii. provides less parking than required by the Los Angeles County Code? iii. is consistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS)? iv. does not replace residential units set aside for lower income households with a smaller number of market-rate residential units? <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to streamlining requirement #3 below.</p> <p>For <u>transportation projects</u>, does the project meet <u>one</u> of the following transportation screening criteria?</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure(s) proposed as an alternative strategy (provide additional documentation as necessary).</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

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| <p>A) The project would not include the addition of through traffic lanes on existing or new highways, including general-purpose lanes, high-occupancy vehicle (HOV) lanes, peak-period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than 1 mile in length designed to improve roadway safety).</p> <p>B) The project would reduce roadway capacity and VMT.</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to streamlining requirement #4 below.</p> <p>Supports 2045 CAP Measures (and Actions): T1 (T1.1, T1.2)</p> | | |
| <p>4. TIER 1: Increase Density Near High-Quality Transit Areas</p> <p>If the project is located within a High Quality Transit Area (HQTA), it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Rezoning Program.</p> <p>If the project is not located within an HQTA, it must locate residential and employment centers within 1 mile of an HQTA.</p> <p>Supports 2045 CAP Measures (and Actions): T1 (T1.1, T1.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below).</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>5. TIER 1: Incorporate Bicycle and Pedestrian Infrastructure</p> <p>The project must incorporate pedestrian and bicycle infrastructure into its design:</p> <p>A) Provide pedestrian facilities and connections to public transportation consistent with the Pedestrian Action Plan, Active Transportation Plans, and Vision Zero Action Plan, and any other relevant governing plan.</p> <p>B) Provide bicycle facilities consistent with the Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan, and any other relevant governing plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen Code.</p> <p>C) Increase sidewalk coverage to improve pedestrian access.</p> <p>D) Improve degraded or substandard sidewalks.</p> <p>E) Incorporate best practices to ensure pedestrian infrastructure is contiguous and links externally with existing and planned pedestrian facilities; best practices include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety.</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)</i></p> <p><i>IN ADDITION, provide the length and/or amount of bicycle and pedestrian infrastructure incorporated, such as feet or miles of bikeways.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>F) Minimize barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings.</p> <p>G) Provide bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added off-street vehicle parking spaces.</p> <p>H) Provide short- and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity and nothing less than CALGreen Code requirements, whichever is more restrictive.</p> <p>I) Support the County’s goal to increase bikeway miles by 300 percent by 2030 (including Class I bike paths, Class II bike lanes, and Class III bike routes).</p> <p>Supports 2045 CAP Measures (and Actions): T3 (T3.1, T3.2, T3.3)</p> | | |
| <p>6. TIER 1: Comply with the County Transportation Demand Management (TDM) Ordinance</p> <p>The Project must comply with the TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. Comply with any applicable VMT reduction target and incorporate any required monitoring mechanisms for development, subject to the ordinance.</p> <p>Supports 2045 CAP Measures (and Actions): T4 (T4.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i></p> <p><i>IN ADDITION, provide the number of employers participating in the TDM program, the total trip reduction goals for the project’s TDM program, and the total trips and VMT reduced via the project’s TDM program.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>7. TIER 1: Comply with the County’s Transportation Impact Guidelines</p> <p>The project must comply with the County’s current Transportation Impact Analysis (TIA) Guidelines. Projects may screen out if they meet certain criteria, such as being located in a transit priority area or local-serving retail development less than 50,000 square feet. Projects that do not screen out must meet the VMT efficiency metrics identified by the TIA Guidelines (e.g., daily VMT per capita for residential projects that is 16.8% below the existing residential VMT per capita for the Baseline Area in which the project is located) and quantitatively demonstrate how these metrics are achieved, pursuant to the TIA Guidelines requirements.</p> <p>Supports 2045 CAP Measures (and Actions): T1, T2, T3, T4, T5</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed strategy (provide additional documentation as described below).</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>8. TIER 1: Incorporate Electric Vehicle Charging Infrastructure The project must incorporate zero-emission vehicle (ZEV) infrastructure and incentives into its design as follows:</p> <ul style="list-style-type: none"> A) Comply with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of electric vehicle (EV) charging infrastructure (EVCSs) and readiness. This may include minimum requirements for EV charging stations, EV-capable parking spaces, and EV-ready parking spaces. B) Comply with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan.¹ C) Include electric options for promoting active transportation, such as electric scooters and e-bikes. D) Provide education and outreach to tenants and occupants about the benefits of ZEVs and the project’s EV infrastructure. <p>Supports 2045 CAP Measures (and Actions): T6 (T6.1, T6.2, T6.3, T6.4, T6.5, T6.6, T6.7)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i> <i>IN ADDITION, provide the number of ZEVs in the project’s tenant’s and vendor fleet, if available; the number of public and private EVCSs installed; and the number of scooters/e-bikes available to tenants.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed |
| <p>9. TIER 1: Decarbonize Trucks For projects that include goods movement facilities and/or warehouses, the project must incorporate freight decarbonization technologies and infrastructure, including:</p> <ul style="list-style-type: none"> A) Comply with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness for goods movement facilities and trucks. B) Provide EVCSs at all new warehouse loading docks. C) Comply with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan related to goods movement. D) Implement freight decarbonization technologies along highway corridors. E) For all goods movement facilities, install alternative fueling infrastructure such as EVCSs, green hydrogen fueling stations, and/or biomethane fueling stations. F) Comply with any established zero-emission delivery zones. <p>Supports 2045 CAP Measures (and Actions): T8 (T8.1, T8.2, T8.3, T8.4, T8.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide the number of ZEV trucks in the project’s tenant’s and vendor fleet if available and the number EVCS installed.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed |

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| <p>10. TIER 1: Incorporate Zero-Emission Technologies for Off-Road Vehicles & Equipment</p> <p>The project must:</p> <ul style="list-style-type: none"> A) Prohibit the use of small equipment powered by gasoline, diesel, propane, or other fossil fuels, including lawn and garden equipment and outdoor power equipment, for all tenants and owners. B) Provide educational materials to tenants regarding the SCAQMD Electric Lawn and Garden Equipment Incentive and Exchange Program, Commercial Lawn & Garden Battery Buy-Down Rebate Program, the Residential Lawn Mower Rebate Program, the new requirements of AB 1346, and any other available options and incentives for purchasing zero-emission equipment, including rebates and subsidies offered by CARB, the County, or other agencies and entities. C) Use electric and zero-emission construction equipment during project construction to the maximum extent feasible. Such equipment shall include forklifts, manlifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers, and other small equipment. At minimum, the project must use off-road construction equipment that meet CARB Tier 4 Final engine emission standards. D) Use electric and zero-emission agriculture and manufacturing equipment to the maximum extent feasible. <p>These requirements must be stipulated in the contract specifications for the project's construction and for the project's future tenants and any landscaping contracts for the property or tenants.</p> <p>Supports 2045 CAP Measures (and Actions): T9 (T9.1, T9.2, T9.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide off-road vehicle and equipment fleet count, type, and fuel type, as available.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>11. TIER 1: Electrify County Fleet Vehicles (for municipal projects only)</p> <p>For all new municipal projects and facilities that include the purchase or operation of new fleet vehicles, including public transit buses and shuttles, all such fleet vehicles must be ZEVs.</p> <p>Supports 2045 CAP Measures (and Actions): T7 (T7.1, T7.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the number of new ZEV buses and the total ZEV percentage of the project's fleet.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>12. TIER 2: Achieve a High Jobs/Housing Balance For projects with nonresidential development, the Project must incorporate the following design elements: A) Support the County’s goal to achieve a job density of 300 jobs per acre. Supports 2045 CAP Measures (and Actions): T2 (T2.1)</p> | <p><i>Describe how the project will achieve a job density of 300 jobs per acre.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR <i>Describe why such actions are not incorporated into your project.</i> IN ADDITION, provide the job density of the project in terms of jobs per acre.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |
| <p>13. TIER 2: Encourage Transit, Active Transportation, and Alternative Modes of Transportation For transit projects only, incorporate the following: A) Expand and improve frequency of existing network of County shuttles. B) Install bus-only lanes and signal prioritization along major thoroughfares. C) Install full bus rapid transit infrastructure along priority corridors. For all other projects, incorporate the following: A) Provide new mobility services, such as micro transit, autonomous delivery vehicles, and on-demand autonomous shuttles, in unincorporated Los Angeles County. B) Offer free transit passes for students, youth, seniors, disabled, and low-income populations. C) Implement telecommuting by project tenants and residents. D) Establish temporary and permanent car-free areas at the project site. Supports 2045 CAP Measures (and Actions): T4 (T4.1, T4.2, T4.3, T4.6, T4.7, T4.8, T4.10)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are not incorporated into your project.</i> IN ADDITION, for transit projects, provide the size of area served by transit, the number of employees and residents served by transit, the transit service frequency and headways, the increase in headways or frequencies provided by the project, total transit service hours provided by transit, the number and length of bus-only lanes, and information on signal prioritization on transit routes implemented by the project. For non-transit projects, provide the number of residents within one-half mile of bus or active transportation services; information on any new mobility services offered, information on free transit passes offered, the number of employers participating in telecommuting programs, and the number and location of car-free areas provided by the project.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |
| <p>14. TIER 2: Implement Parking Limitations Projects should include the following characteristics: A) Shared and reduced parking strategies, such as shared parking facilities, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces, and reduced parking below allowable amount B) Minimum amount of required parking C) Unbundled parking costs to reflect cost of parking D) Parking pricing to encourage “park-once” behavior E) Compliance with all County parking reform strategies and policies Supports 2045 CAP Measures (and Actions): T5 (T5.1)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions not incorporated into your project.</i> IN ADDITION, provide the total number of parking spaces, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces; information on parking costs and unbundling; and parking prices.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| Building Energy and Water | | |
| <p>15. TIER 2: Decarbonize Existing Buildings This action applies only to projects that include a retrofit, remodel, or redesign of an existing building. If the proposed project does not include a retrofit, remodel, or redesign, select "Not Applicable" in the <i>Project Complies</i> column. The project must incorporate the following design elements: A) Achieve zero GHG emissions for on-site energy use. B) Comply with all applicable Building Performance Standards.² C) Comply with all building carbon intensity limits.³ D) If the project is a major renovation, achieve ZNE and/or comply with the City's ZNE ordinance.⁴ Supports 2045 CAP Measures (and Actions): E1 (E1.1, E1.2, E1.3, E1.4, E1.5, E1.6)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the project's anticipated GHG emissions associated with on-site energy consumption (i.e., natural gas use and electricity use) and the number of existing buildings transitioned to zero-GHG buildings.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>16. TIER 2: Decarbonize New Buildings For projects under construction before 2030, the project must achieve zero GHG emissions for on-site energy use, and/or comply with the County's building decarbonization ordinance, unless the project meets specific exemptions identified in the ordinance.⁵ For projects under construction after 2030, the project must be zero-net-energy (ZNE) and achieve zero GHG emissions for on-site energy use, and/or comply with the County's ZNE ordinance, unless the project meets specific exemptions identified in the ordinance.⁶ Supports 2045 CAP Measures (and Actions): E2 (E2.1, E2.2, E2.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the number and square footage of zero GHG emission buildings built, all ZNE buildings built, and the total GHG emissions anticipated for all buildings.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>17. TIER 1: Increase Building Energy Efficiency This action applies only to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the <i>Project Complies</i> column. The project shall incorporate the following energy efficiency measures into the design:</p> <ul style="list-style-type: none"> A) Comply with all applicable building performance standards.⁷ B) Incorporate strategic energy management programs to reduce building energy demands. C) Conduct an energy audit or benchmarking analysis to identify potential energy savings opportunities and implement such opportunities. D) Achieve CALGreen Code Tier 2 or voluntary building energy measures as they apply to the retrofit. E) Replace existing appliances with higher-efficiency models. F) Install heat-trapping surfaces to cool or green surfaces, as feasible. G) Participate in SoCalREN, SCE, CPA, or other energy efficiency programs. H) Conduct other energy efficiency retrofits. I) Achieve zero-net-energy, if feasible. <p>Supports 2045 CAP Measures (and Actions): E4 (E4.1, E4.2, E4.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide the total number of energy retrofits performed, the building size (square footage) retrofit, the total project energy use and anticipated energy savings through retrofits, and the number and area of cool and green roofs installed.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>18. TIER 1: Implement Water Use Efficiency and Water Conservation The project must comply with the current water conservation ordinance in place, including any requirements for LEED or Sustainable SITES standards.⁸ The project must also incorporate water use efficiency and conservation measures, including:</p> <ul style="list-style-type: none"> A) High-efficiency appliances/fixtures to reduce water use, and/or include water-efficient landscape design B) CALGreen Code Tier 1 and Tier 2 voluntary water conservation measures C) Low-flow or high-efficiency water fixtures D) Water-efficient landscapes with lower water demands than required by the DWR 2015 Model Water Efficient Landscape Ordinance E) Drought-tolerant and native plant species only F) A comprehensive water conservation strategy G) Educational materials provided to future tenants and building occupants about water-saving behaviors and water-conserving landscaping | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide the project's estimated total water consumption (in GPCD or total gallons), the square footage of buildings that are water-neutral, and the project's building size (square footage).</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>Supports 2045 CAP Measures (and Actions): E6 (E6.1, E6.2, E6.3, E6.4, E6.5)</p> | | |
| <p>19. TIER 2: Reduce the Life-Cycle Carbon Intensity of Building Materials and Phase Out the Use of High-GWP Refrigerants</p> <p>The project must incorporate the following design elements to the maximum extent feasible:</p> <ul style="list-style-type: none"> A) For projects that are not fully electric, incorporate biomethane into the natural gas mix in place of traditional natural gas. B) Use negative-carbon concrete for all construction. C) Use low-GWP refrigerants and fire suppression equipment for all uses on-site. D) Comply with all County codes and ordinances regarding building material carbon intensity and high-GWP refrigerants and other gases. <p>Supports 2045 CAP Measures (and Actions): E3 (E3.1, E3.2, E3.3, E3.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the amount of biomethane used by the project, the quantity of negative-carbon concrete for construction, and the quantity of low-GWP refrigerants and fire suppression equipment used.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply |
| <p>20. TIER 2: Use Energy Storage and Microgrids</p> <p>The project must incorporate the following design elements to the maximum extent feasible:</p> <ul style="list-style-type: none"> A) Install energy storage systems. B) Use a building-scale or community microgrid to support demand management and peak shaving. <p>Supports 2045 CAP Measures (and Actions): ES4 (ES4.1, ES4.2, ES4.3, ES4.4, ES4.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are not incorporated into your project</i></p> <p><i>IN ADDITION, provide the total kW of energy storage capacity installed and operational information for any microgrids utilized, if applicable.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply |
| <p>21. TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture</p> <p>The project must implement water reuse strategies onsite through the following design elements:</p> <ul style="list-style-type: none"> A) Require use of reclaimed/recycled water and/or graywater for outdoor uses. B) Install residential graywater systems that meet appropriate regulatory standards. C) Install rainfall capture systems. D) Install dual plumbing for the use of recycled water. <p>Supports 2045 CAP Measures (and Actions): E5 (E5.1, E5.2, E5.3, E5.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are not incorporated into your project</i></p> <p><i>IN ADDITION, provide the amount of reclaimed/recycled water and/or graywater used by the project.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|--|--|
| Waste | | |
| <p>22. TIER 1: Compost Organic Materials</p> <p>The project must comply with all state and local requirements for composting and organic waste collection, including but not limited to Chapter 20.91 (Mandatory Organic Waste Disposal Reduction Ordinance) of the Los Angeles County Code, including all County requirements pursuant to AB 1826 and SB 1383. The project must also:</p> <ul style="list-style-type: none"> A) Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick-up of collection containers to meet the needs of the occupants. B) Include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. Provide educational material and training to occupants and tenants in how to properly separate organics from all other solid waste and place organics in a separate container designated for organics. C) Ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting. D) Require that all single-use food service ware (plates, bowls, cups) and accessories (straws, utensils, condiment cups) used by tenants at the project site be BPI certified compostable fiber, except where certain materials may be deemed medically necessary or necessary to ensure equal access for persons with disabilities. E) Require that any single-use accessories (straws, utensils, condiment cups) be only available on demand. F) Ensure that containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the County as requested. G) Work with the waste hauler to provide educational materials to tenants on at least an annual basis. H) Provide compliance data to the County as required for any current auditing program. <p>Supports 2045 CAP Measures (and Actions): W1 (W1.1, W1.2) and W2 (W2.1, W2.2, W2.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the project's estimated organic waste generation (tons), the amount of organic waste sent to landfills, and the amount of organic waste generated by the project which is diverted from landfills.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|--|---|
| <p>23. TIER 1: Recycle Recyclable Materials</p> <p>The project must comply with all state and local requirements for recycling, also including but not limited to Section 20.72.170 (Recyclable Materials Collection Program) of the Los Angeles County Code and all County requirements pursuant to AB 341 and AB 1826. The project must also:</p> <ul style="list-style-type: none"> A) Comply with any zero waste ordinance in place at the time of project approval. B) Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse). C) Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick-up of collection containers to meet the needs of the occupants. D) Include space for multi-stream collection containers in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. Provide educational materials and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling. E) Ensure that all project occupants and tenants separate recyclables from all other refuse and place recyclables in a separate container designated for recycling. F) Require that all single-use food service ware (plates, bowls, cups) and accessories (straws, utensils, condiment cups) used by tenants at the project site be BPI certified compostable fiber, except where certain materials may be deemed medically necessary or necessary to ensure equal access for persons with disabilities. G) Require that any single-use accessories (straws, utensils, condiment cups) be only available on demand. H) Ensure that containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the County as requested. I) Work with the waste hauler to provide educational materials to tenants on at least an annual basis. J) Provide compliance data to the County as required for any current auditing program. <p>Supports 2045 CAP Measures (and Actions): W1 (W1.1, W1.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the total C&D tonnage recycled and/or diverted from landfills, the project's estimated recyclable waste generation (tons), the amount of recyclable waste sent to landfills, and the amount of recyclable waste generated by the project which is diverted from landfills.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>24. TIER 2: Incorporate On-Site Composting, Mulching, and/or Anaerobic Digestion</p> <p>The project may incorporate organic waste processing capabilities, such as composting, mulching, or anaerobic digestion facilities (where applicable). Collaborate with PW and waste agencies to share organic processing information with interested parties.</p> <p>Supports 2045 CAP Measures (and Actions): W2 (W2.2, W2.3, W2.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide information on any anaerobic digestion facilities constructed including their capacity and the amount of organic waste digested and converted to electricity, and the project's total energy generation from organic waste.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| Agriculture, Forestry, and Other Land Use (AFOLU) | | |
| <p>25. TIER 1: Incorporate Tree Plantings and Expand Urban Forest Cover</p> <p>The project must:</p> <ul style="list-style-type: none"> A) Enhance and expand urban forest cover and vegetation by planting trees and other vegetation. All trees and vegetation planted must be drought-tolerant or California native trees and plants. B) Comply with the Urban Forest Management Plan. C) Replace all native trees removed by the project with an equal or greater number of new trees. D) To the extent feasible, incorporate equitable urban forest practices and prioritize: <ul style="list-style-type: none"> i. Tree- and park-poor communities ii. Climate and watershed-appropriate and drought/pest-resistant vegetation iii. Appropriate watering, maintenance, and disposal practices iv. Shading v. Biodiversity <p>Supports 2045 CAP Measures (and Actions): A3 (A3.1, A3.2, A3.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the total number of trees planted, the total tree canopy cover, the project's total green space area, and the area of impervious surface converted to pervious surfaces.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>26. TIER 2: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands</p> <p>For all projects involving the preservation, conservation, and restoration of agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County, the project may:</p> <ul style="list-style-type: none"> A) Support the use of public and private land for urban and peri-urban agriculture, such as community gardens, and including urban vertical surfaces. B) Conserve and restore natural forest lands, wetlands and wildlands through land acquisitions and conservation easements. C) Preserve existing agricultural and farmlands, including those mapped as Agricultural Resource Areas. Expand adjoining areas to enlarge farmland area. D) Actively manage forests to reduce wildfire risk and prevent carbon loss in forest lands. <p>Supports 2045 CAP Measures (and Actions): A1 (A1.1 and A1.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the total number of acres preserved, conserved, and restored by land type, the number and size of community gardens added, the amount of vertical surface converted, and the acres of forest land managed for wildfire risk reduction and carbon stock savings if applicable.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| <p>27. TIER 2: Implement Regenerative Agricultural Practices</p> <p>For all agricultural projects, the project may:</p> <ul style="list-style-type: none"> A) Utilize fallow and field resting practices to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. B) Implement a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture. C) Use compost and/or organic fertilizer. <p>Supports 2045 CAP Measures (and Actions): A2 (A2.1, A2.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the quantity of synthetic fertilizers and compost used / applied, the number of acres of cover crops using regenerative agricultural techniques, the tonnage of fertilizer/compost produced each year.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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NOTES:

Abbreviations: 2045 CAP = 2045 Los Angeles County Climate Action Plan; AB = Assembly Bill; AFOLU = Agriculture, Forestry, and Other Land Use; C&D = Construction & Demolition; CALGreen Code = California Green Building Standards Code; CAP = Climate Action Plan; CARB = California Air Resources Board; CEQA = California Environmental Quality Act; County = County of Los Angeles; CPA = Clean Power Alliance; DU = dwelling unit(s); DWR = California Department of Water Resources; EIR = environmental impact report; EV = electric vehicle; EVCS = electric vehicle charging station; General Plan = Los Angeles County General Plan 2035; GHG = greenhouse gas; GWP = global warming potential; HOV = high-occupancy vehicle; HQTA = High Quality Transit Area; kW = kilowatts; LEED = Leadership in Energy and Environmental Design; MWELO = Model Water Efficient Landscape Ordinance; PV = photovoltaic; PW = Los Angeles County Department of Public Works; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SCE = Southern California Edison; SoCalREN = Southern California Regional Energy Network; TDM = transportation demand management; TIA = Transportation Impact Analysis; VMT = vehicle miles traveled; WUI = wildland urban interface; ZEV = zero-emission vehicle; ZNE = zero net energy.

- ¹ *Although the County has not yet developed the Zero Emission Vehicle Master Plan, the County will develop such a Plan before 2030, pursuant to Implementing Action T6.1 in the 2045 CAP.*
- ² *Although the County has not yet developed building performance standards, the County will develop such a standard before 2030, pursuant to Implementing Action E1.1 in the 2045 CAP.*
- ³ *Although the County has not yet developed carbon intensity limits, the County will develop such a standard before 2030, pursuant to Implementing Action E1.2 in the 2045 CAP.*
- ⁴ *Although the County has not yet developed a ZNE ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E1.3 in the 2045 CAP.*
- ⁵ *Although the County has not yet developed a building decarbonization ordinance, the County will develop such an ordinance before 2030, pursuant to Implementing Action E2.1 in the 2045 CAP.*
- ⁶ *Although the County has not yet developed a ZNE ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E2.2 in the 2045 CAP.*
- ⁷ *Although the County has not yet developed building performance standards, the County will develop such a standard before 2030, pursuant to Implementing Action E4.1 in the 2045 CAP.*
- ⁸ *Although the County has not yet developed a net-zero water ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E6.1 in the 2045 CAP.*
- ⁹ *Although the County has not yet developed building performance standards for building material carbon intensity and high-GWP refrigerants, the County will develop standards before 2030, pursuant to Implementing Actions E3.3 and E3.4 in the 2045 CAP.*

Table F-2: 2045 CAP Greenhouse Gas Emissions Reduction Alternative Measures

| DESCRIPTION OF PROPOSED ALTERNATIVE MEASURE | DESCRIPTION OF GHG REDUCTION ESTIMATE |
|--|--|
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |

F.4 Offsite GHG Reduction Program Framework

Introduction

Action ES5.4 of the 2045 CAP would establish an Offsite GHG Emissions Reduction Program (Offsite Program) for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would allow new development to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions. Future projects that cannot achieve net-zero GHG emissions or are unable to comply with all CEQA streamlining requirements would have the option to participate in the Offsite Program. The Offsite GHG Reduction Program could be used for projects that propose alternative GHG emissions reduction measures to those identified in Table F-1, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1. This program would allow project applicants to implement local projects that reduce GHG emissions in unincorporated Los Angeles County (referred to herein as *offsite projects*). Such offsite projects must not otherwise be required by law or regulation and would not have happened but for the requirements placed on the project by the 2045 CAP CEQA Streamlining Checklist.

Once the County has instituted the Offsite GHG Reduction Program, project applicants will be able to use the program to complete Table F-2. Once established, the Offsite GHG Reduction Program should only be used after all feasible on-site GHG reduction measures are implemented at the project site to demonstrate compliance with the CEQA streamlining requirements.

This section represents a *framework* for the forthcoming Offsite Program; the actual program will be developed after the 2045 CAP is adopted.

CARB Guidance on Offsite GHG Reductions

As discussed in Section F.1, CARB supports “off-site GHG mitigation” in Appendix D of the 2022 Scoping Plan for projects that have implemented all feasible on-site GHG reductions: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement **local**, off-site direct GHG reduction strategies.”²¹ The Offsite Program would achieve these goals.

Relationship to 2045 CAP Measures and Actions

The offsite projects that will be allowed in the program fall into two general categories:

1. Offsite projects *included* in the 2045 CAP’s measures and actions.
2. Offsite projects *not included* in the 2045 CAP’s measures and actions.

Offsite Projects Included in the 2045 CAP

This category represents projects (and the GHG emissions reductions they create) that *are* already included in the 2045 CAP’s measures and actions. An allowable offsite project could

²¹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

involve, for example, accelerating measures, actions, and/or programs that are already identified in the 2045 CAP by providing additional funding to that program. Such projects would not add new programs or actions not already included in the 2045 CAP; they would expand upon and/or accelerate these programs and actions. Example projects are discussed below.

Offsite Projects Not Included in the 2045 CAP

This category represents projects (and the GHG emissions reductions they create) that are *not* already included in the 2045 CAP's measures and actions. An allowable offsite project could involve, for example, creating or funding programs for implementing new technologies (e.g., zero-emission construction equipment) or implementing new emissions reduction measures or actions not considered in the 2045 CAP. Example projects are discussed below.

Offsite Projects Not Eligible

Offsite projects that are implementing planned 2045 CAP measures and actions on the 2045 CAP's identified timeline are not eligible for the Offsite Program. Additionally, an offsite project activity that would be mandated by any current or future ordinance (such as a future ZNE ordinance for new buildings) cannot be used in the Offsite Program.

Carbon offset credits are not permitted to be used as offsite projects. In other words, projects that generate carbon offset credits to be traded on a voluntary market registry are not permitted to be used in this program.

Location

All offsite projects must be located within the jurisdictional boundaries of unincorporated Los Angeles County. Therefore, emissions reductions achieved by such offsite projects will be accounted for in future GHG inventory updates and will contribute toward the emissions reduction targets, which are based on the jurisdictional boundaries of unincorporated Los Angeles County. See 2045 CAP Appendix A for a discussion of the inventory and forecast boundaries.

Offsite projects shall be in the following locations, in order of priority, to the extent available: (1) Within the neighborhood surrounding the project site; (2) within the greater surrounding community (i.e., town); (3) within the same Planning Area; and (4) in other Planning Areas, but within unincorporated Los Angeles County.

Standards

All offsite projects must achieve **six specific standards** to ensure that the GHG reductions produced by offsite projects are environmentally sound; namely that the GHG reductions be real, permanent, quantifiable, verifiable, enforceable, and additional, defined as follows:

- **Real** means that the offsite project's GHG reductions are the direct result of complete emissions accounting. In other words, *real* means that GHG reductions or GHG enhancements result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG

emissions sources, GHG sinks, and GHG reservoirs within the offsite project boundary and account for uncertainty.²²

- **Permanent** means either that GHG reductions and GHG removal enhancements are not reversible, or that when GHG reductions and GHG removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG emissions reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years.
- **Quantifiable** means the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to an offsite project's baseline in a reliable and replicable manner for all GHG emissions sources, GHG sinks, or GHG reservoirs included within the offsite project boundary, while accounting for uncertainty. GHG emissions reductions from an activity must be rigorously quantified, and such GHG reductions would only be permitted in an amount that corresponds to the GHG emissions that have been quantified. GHG emissions accounting must be accurate and adhere to standardized quantification methodologies, which are discussed further below.
- **Verifiable** means that an offsite project's assertion of GHG emissions reductions is well documented and transparent, such that it lends itself to an objective review by an accredited verification body. The forthcoming Offsite Program itself may require third-party verification.²³
- **Enforceable** means the authority of the County to hold a particular party responsible to take appropriate action if any of the provisions of the Offsite Program are violated.
- **Additional** means that the offsite project is not otherwise required by law, regulation, or legally binding mandate, and none of the offsite project's GHG emissions reductions would otherwise occur. In other words, an offsite project activity is additional if it can be demonstrated that the activity would result in emissions reductions or removals exceeding what would be achieved in the absence of the incentive provided by the proposed project and the 2045 CAP CEQA Streamlining Checklist. Additionality is an important characteristic the Offsite Program because it indicates that the GHG reductions represent a net environmental benefit and a real reduction of GHG emissions and can thus be used to offset a project's new GHG emissions.

Proposed Process

If an applicant selects to use the Offsite Program as an alternative GHG emissions reduction measure beyond those described in Table F-1, a specific process must be followed. The process will consider the following topics, which are subject to modification by the County in the forthcoming Offsite Program.

Quantification: Project applicants shall provide evidence to the County showing that the offsite project(s) proposed achieve the amount of GHG emissions reductions required. Examples of

²² In general, uncertainty should be accounted for by using conservative assumptions and/or parameter values that tend to underestimate, rather than overestimate, total GHG emissions reductions.

²³ Generally, third-party verification includes a review of all documentation, monitoring data, and procedures used to estimate GHG reductions, and culminate in the verification body's issuance of a report and statement that identifies the quantity of GHG reductions that can be issued to the offsite project. As part of the report and statement, the independent third party verifies that the offsite project has adhered to the pertinent protocol or methodology, to confirm that the offsite project's GHG reductions are real, permanent, quantifiable, enforceable, and additional.

such evidence include applicable methodologies associated with the GHG emissions reductions, quantification calculations, and supporting documentation.

Standards: Project applicants must demonstrate, with substantial evidence, that all six of the offsite project standards are met: *real, permanent, quantifiable, verifiable, enforceable, and additional*.

Enforcement: Project applicants shall obtain all necessary permits and approvals for implementation of the offsite project implementation and such materials shall be submitted to the County for review and approval before project approval.

Timing: Project applicants shall submit documentation to the County identifying the quantity of GHG emissions reductions required by the offsite project over a specific time frame to be identified in the Offsite Program (e.g., before project approval or permit issuance, over the course of buildout of the project).

Monitoring: Project applicants shall submit regular reports documenting the offsite project's achieved GHG emissions reductions over a specified time period (such as the previous or current calendar year).

Example Offsite Projects

- **Local building electrification programs:** Programs that target existing residential and commercial buildings in the project's vicinity for electrification, provided that such electrification actions are not already required by law or regulation, County building performance standards, or reach code requirements. For example, replacing a natural gas-fired heating, ventilation, and air conditioning system with an electric heat pump or replacing a gas stove with an induction cooktop.
- **Off-site EV chargers:** Programs that install EV charging stations, provided that such installations are not already required by law or regulation, or County reach code requirements and the forthcoming Zero Emission Vehicle Master Plan (Measure T6). For example, funding or directly installing EV chargers in multi-unit dwellings in disadvantaged or low-income areas, public locations (schools, libraries, city centers), workplaces, and key destinations (e.g., parks, recreation areas, sports arenas).
- **Local building solar programs:** Programs that target existing residential and commercial buildings in the project's vicinity for rooftop solar photovoltaic installations, provided that such installations are not already required by law or regulation, County building performance standards, or reach code requirements. For example, funding or directly installing rooftop solar installations or community solar systems.
- **Energy storage and microgrids:** Funding for or direct implementation of a microgrid to balance generation from non-controllable renewable power sources, such as solar, with distributed, controllable generation, such as natural gas-fueled combustion turbines; or a strategically deployed battery storage system to make the grid more flexible by unlocking renewable energy and replacing fossil fuel-generated electricity, especially during peak hours. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.
- **Truck and bus electrification programs:** Funding for the purchase of zero-emission vehicle trucks and buses to replace existing fossil fuel-powered trucks and buses;

coordination with local transportation agencies and school districts and replacement of diesel- or gasoline-fueled buses with less-polluting technologies such as compressed natural gas, electric, hybrid-electric, fuel cell, or other commercially available technologies. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.

- **Hydrogen fuel:** Funding for or programs that provide renewable hydrogen fueling stations to nearby truck fleets, such as at logistics warehouses, or other uses of renewable hydrogen fuel as a replacement for fossil fuels. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.

Environmental Impacts Pursuant to CEQA

Project applicants' CEQA documents would be required to disclose the impacts of any offsite projects that are proposed for funding or implementation. The Final PEIR for the 2045 CAP evaluates the potential environmental impacts of the 2045 CAP's measures and actions. For any offsite projects implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the 2045 CAP's measures and actions, the resulting environmental impacts would be expected to be similar to those disclosed in the Final PEIR. Project applicants' CEQA documents may rely on the Final PEIR impact analysis for an offsite project similar to those contemplated by the 2045 CAP, unless a specific offsite project causes a new or substantially more severe impact for that project type not addressed in the Final PEIR.

Next Steps and Additional Guidance

This section represents a *framework* for the Offsite Program. The actual Offsite Program will be developed separately after the 2045 CAP is formally adopted and the Final PEIR is certified. Once the formal Offsite Program is developed, project applicants may use it to demonstrate compliance with the CEQA streamlining requirements as indicated above.

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APPENDIX G

Funding Sources

Table G-1 provides a list of potential funding sources for implementing the *2045 Los Angeles County Climate Action Plan (2045 CAP)*. Programs and funding sources for implementing greenhouse gas (GHG) emissions reduction programs are developing rapidly and may change substantially from year to year. These include but not limited to the various grant programs that fall under the umbrella of [California Climate Investments](#) (funded from cap-and-trade revenues), and organizations like Southern California Regional Energy Network (SoCalREN) that provide financial assistance for energy efficiency improvements to residents, businesses, and public agencies.

The State of California offers a [Funding Wizard](#) that let users search for grants and other funding sources, using keywords and sector-based searches (e.g., transportation, energy, solid waste, urban greening, local agriculture, urban development, waste management, and water). A similar resource is the [UpLift Resource Finder](#), which provides a searchable database of funding opportunities available to individuals, community groups, and local governments that are oriented toward benefits to disadvantaged communities. UpLiftCA was created by The Greenlining Institute in partnership with the California Climate Equity Coalition, comprising the Asian Pacific Environmental Network, Coalition for Clean Air, The Greenlining Institute, Public Advocates, and SCOPE.

Table G-1: Potential Funding Sources to Support CAP Implementation

| PROGRAM | DESCRIPTION |
|---|---|
| Federal Programs | |
| Carbon Dioxide Transportation Infrastructure Finance and Innovation (CIFIA) Program | Administered by the U.S. Department of Energy, the CIFIA program extends loans and loan guarantees to support projects that involve the delivery of infrastructure (i.e., pipeline, shipping, rail, or other infrastructure) and associated equipment for the transportation of carbon dioxide. Eligible CIFIA projects must have project costs in excess of \$100 million, and while project proposals must be submitted by a public entity, contracts are with private entities through public-private partnership arrangements. |
| Energy Efficient Mortgages | The Federal Housing Administration (FHA) offers an Energy Efficient Mortgage (EEM) Loan program that helps current or future homeowners save money on their utility bills by enabling borrowers who might not otherwise qualify for conventional loans on affordable terms to finance energy efficient improvements with their FHA mortgage. Qualified homebuyers or homeowners are automatically pre-approved for an additional 5–15% of their approved loan to do energy-efficient repairs to their homes without adding to their debt-to-income ratios. The EEM program recognizes that an energy-efficient home will have lower operating costs, making it more affordable for the homeowner. |
| ENERGY STAR® Portfolio Manager® | Portfolio Manager is a free tool supported by U.S. EPA that measures a building's energy performance and compares it to other similar buildings. It allows building owners and managers to track energy use and verify improvements. Approximately 40% of U.S. commercial building space is benchmarked in Portfolio Manager—making it the industry-leading benchmarking tool. |
| Federal Infrastructure Investment and Jobs Act | <p>The Federal Infrastructure Investment and Jobs Act, passed in 2021, authorizes approximately \$550 billion in new federal investment in America's transportation, communication, and water infrastructure, with much of the funding geared toward the clean energy transition and to increasing resilience to climate change. The legislation includes the following:</p> <ul style="list-style-type: none"> • \$39 billion of new investment to modernize transit and improve accessibility for the elderly and people with disabilities. • \$7.5 billion to build a national network of electric vehicle chargers. • \$73 billion for power infrastructure and the clean energy transmission. • \$110 billion for roads, bridges, and other major projects. • \$11 billion in transportation safety programs. • \$39 billion in transit modernization and improved accessibility. |
| Federal Solar Investment Tax Credit | The federal residential solar energy credit is a tax credit that can be claimed on federal income taxes for a percentage of the cost of a solar PV system. The system must be placed in service during the tax year and generate electricity for a home located in the United States. In December 2020, Congress passed an extension of the investment tax credit, which provides a 26% tax credit for systems installed in 2020–2022 and 22% for systems installed in 2023. (Systems installed before December 31, 2019, were eligible for a 30% tax credit.) The tax credit expires starting in 2024 unless Congress renews it. |
| Federal Inflation Reduction Act | <p>The Inflation Reduction Act, signed into law in August 2022, includes nearly \$400 billion in climate-related funding and nearly \$370 billion in investments in disadvantaged communities, prioritizing projects that repurpose retired fossil fuel infrastructure and employ displaced workers. The Inflation Reduction Act builds on the initial climate funding opportunities passed into law in the Infrastructure Investment and Jobs Act to support projects across EV charging, power infrastructure, and climate resilience. This law includes the following:</p> <ul style="list-style-type: none"> • Energy Cost Investments: <ul style="list-style-type: none"> ○ \$9 billion in consumer home energy rebate programs, focused on low-income consumers, to electrify home appliances and for energy efficient retrofits. ○ 10 years of consumer tax credits to make homes energy efficient and run on clean energy. ○ A \$4,000 consumer tax credit for lower/middle-income individuals to buy used clean vehicles, and an up to \$7,500 tax credit to buy new clean vehicles. ○ \$1 billion grant program to make affordable housing more energy efficient. |

| PROGRAM | DESCRIPTION |
|--|---|
| | <ul style="list-style-type: none"> • American Energy Security and Domestic Manufacturing: <ul style="list-style-type: none"> ○ Production tax credits to accelerate U.S. manufacturing of solar panels, wind turbines, batteries, and critical minerals processing, estimated to invest \$30 billion. ○ \$10 billion investment tax credit to build clean technology manufacturing facilities. ○ \$500 million in the Defense Production Act for heat pumps and critical minerals processing. ○ \$2 billion in grants to retool existing auto manufacturing facilities to manufacture clean vehicles. ○ Up to \$20 billion in loans to build new clean vehicle manufacturing facilities. ○ \$2 billion for National Labs to accelerate breakthrough energy research. • Economy Decarbonization: <ul style="list-style-type: none"> ○ Tax credits for clean sources of electricity and energy storage, and approximately \$30 billion in targeted grant and loan programs for states and electric utilities to accelerate the transition to clean electricity. ○ Tax credits and grants for clean fuels and clean commercial vehicles to reduce emissions from all parts of the transportation sector (see “Electric Vehicles Tax Credits [Inflation Reduction Act of 2022]”). ○ Grants and tax credits to reduce emissions from industrial manufacturing processes, including almost \$6 billion for a new Advanced Industrial Facilities Deployment Program to reduce emissions from the largest industrial emitters. ○ More than \$9 billion for federal procurement of American-made clean technologies, including \$3 billion for the U.S. Postal Service to purchase zero-emission vehicles. ○ A \$27 billion clean energy technology accelerator to support deployment of technologies to reduce emissions, especially in disadvantaged communities. ○ A methane emissions reduction program to reduce leaks from the production and distribution of natural gas. • Environmental Justice: <ul style="list-style-type: none"> ○ \$3 billion for environmental and climate justice block grants to invest in community-led projects in disadvantaged communities and community capacity building centers to address disproportionate impacts related to pollution and climate change. ○ \$3 billion for neighborhood access and equity grants to reconnect communities divided by existing infrastructure barriers, mitigate negative impacts of transportation facilities or construction projects on disadvantaged or underserved communities, and support equitable transportation planning and community engagement activities. ○ \$3 billion for grants to reduce air pollution at ports to support the purchase and installation of zero-emission equipment and technology at ports. ○ \$1 billion for clean heavy-duty vehicles, like school and transit buses and garbage trucks. • Farmers, Forestland Owners, and Resilient Rural Communities: <ul style="list-style-type: none"> ○ More than \$20 billion to support climate-smart agriculture practices. ○ \$5 billion in grants to support healthy, fire-resilient forests, forest conservation, and urban tree planting. ○ Tax credits and grants to support the domestic production of biofuels, and to build the infrastructure needed for sustainable aviation fuel and other biofuels. ○ \$2.6 billion in grants to conserve and restore coastal habitats and protect communities that depend on those habitats. |
| <p>Renewable Electricity Production Tax Credit</p> | <p>The renewable electricity production tax credit is a per-kWh federal tax credit included under Section 45 of the U.S. tax code for electricity generated by qualified renewable energy resources. It provides a corporate tax credit of 1.3 cents/kWh for electricity generated from landfill gas, open-loop biomass, municipal solid waste resources, qualified hydroelectric, and marine and hydrokinetic (150 kilowatts or larger). Electricity generation from wind, closed-loop biomass, and geothermal resources results in a corporate tax credit of as much as 2.5 cents/kWh.</p> |
| <p>Low-Income Solar and Wind Investment Tax Credit</p> | <p>This investment tax credit is currently a 30% federal tax credit claimed against the tax liability of residential (under Section 25D) and commercial and utility (under Section 48) investors in solar energy property. The Section 25D residential investment tax credit allows homeowners to apply the credit to their personal income taxes. This credit is used when homeowners purchase solar systems and have them installed on their homes. In the case of the Section 48 credit, the business that installs, develops, and/or finances the project claims the credit.</p> |

| PROGRAM | DESCRIPTION |
|--|---|
| Greenhouse Gas Reduction Fund | <p>The Inflation Reduction Act amended the Clean Air Act to create a new program: the Greenhouse Gas Reduction Fund. This first-of-its-kind program will provide competitive grants to mobilize financing and leverage private capital for clean energy and climate projects that reduce GHG emissions—with an emphasis on projects that benefit low-income and disadvantaged communities—and further the Biden-Harris Administration’s commitment to environmental justice. The Greenhouse Gas Reduction Fund provides \$27 billion to U.S. EPA for expenditure until September 30, 2024. This includes:</p> <ul style="list-style-type: none"> • \$7 billion for competitive grants to enable low-income and disadvantaged communities to deploy or benefit from zero-emission technologies, including distributed technologies on residential rooftops; • Nearly \$12 billion for competitive grants to eligible entities to provide financial and technical assistance to projects that reduce or avoid GHG emissions; and • \$8 billion for competitive grants to eligible entities to provide financial and technical assistance to projects that reduce or avoid GHG emissions in low-income and disadvantaged communities. |
| Energy-Efficient Commercial Buildings Tax Deduction | <p>The Energy-Efficient Commercial Buildings Tax Deduction incentivizes designers to meet or exceed an agency’s energy reduction requirements for new and existing buildings. The Energy Policy Act of 2005 allows building owners to receive a tax deduction (codified in U.S. Code Title 26, Section 179D) for expenses incurred for qualified energy-efficient building investments. In government-owned buildings, the government may allocate this deduction to the person(s) primarily responsible for designing the improvements. The deduction may be taken in the year the energy-efficient improvements are placed in service.</p> |
| Reconnecting Communities Pilot Program—Planning Grants and Capital Construction Grants | <p>The Bipartisan Infrastructure Law established the new Reconnecting Communities Pilot discretionary grant program, funded with \$1 billion over the next 5 years. It is the first-ever federal program dedicated to reconnecting communities that were previously cut off from economic opportunities by transportation infrastructure. Funding supports planning grants, capital construction grants, and technical assistance to restore community connectivity through the removal, retrofit, mitigation, or replacement of eligible transportation infrastructure facilities.</p> |
| Resilient and Efficient Codes Implementation | <p>\$225 million for the Infrastructure Investment and Jobs Act to advance state and local jurisdiction efficiency and resilience of building energy codes, as well as provide long-term sustainability of measures and savings, and address equity, energy, environmental justice, and resilience priorities. Funding is appropriated for “eligible entities to enable sustained cost-effective implementation of updated building energy codes” through a competitive grant process over five years (Fiscal Years 2022 through 2026). Awardees eligible for this funding must include a relevant state agency, and priority will be given to teams that include strategic partnerships, such as a local building code agency, codes and standards developers, associations of builders and design and construction professionals, and many others. Projects must be tied to an updated building energy code, which includes any amendment or code update resulting in increased energy efficiency as compared to the previously adopted code.</p> |
| Low Income Home Energy Assistance Program (LIHEAP) | <p>LIHEAP is a federal program administered by the U.S. Department of Health and Human Services that provides assistance to eligible low-income households to manage and meet their immediate home heating and/or cooling needs. LIHEAP offers several services to help low-income households meet their home energy needs:</p> <ul style="list-style-type: none"> • The Home Energy Assistance Program, which provides one-time financial assistance to help balance an eligible household’s utility bill. • The Energy Crisis Intervention Program, which provides assistance to low-income households that are in a crisis situation, such as households receiving a 24- to 48-hour disconnect notice or service termination by their utility company, or households facing an energy-related crisis that could be deemed potentially life-threatening, such as a combustible appliance. • LIHEAP Weatherization, which provides free energy efficiency upgrades to lower monthly utility bills and improve household health and safety. • Energy budget counseling, and education on basic energy efficiency practices and instruction on the proper use and maintenance of installed weatherization measures. |
| Pollution Prevention (P2) Grant Program | <p>P2 grants provide technical assistance to businesses to help them develop and adopt source reduction practices (also known as “pollution prevention” or “P2”). “P2” means reducing or eliminating pollutants from entering any waste stream or otherwise released into the environment prior to recycling, treatment, or disposal.</p> |

| PROGRAM | DESCRIPTION |
|---|---|
| Source Reduction Assistance Grant Program | Source reduction assistance grants can support research, experiments, surveys, demonstration projects, education, and training related to source reduction approaches, which is also known as “pollution prevention” or “P2.” |
| Justice40 Investments | Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, established the Justice40 Initiative, which directs 40% of the overall benefits of certain federal investments—including investments in clean energy and energy efficiency; clean transit; affordable and sustainable housing; training and workforce development; the remediation and reduction of legacy pollution; and the development of clean water infrastructure—to flow to disadvantaged communities. Through the President’s Inflation Reduction Act, Bipartisan Infrastructure Law, and the American Rescue Plan, federal agencies are making historic levels of investment to advance environmental justice. |
| Electric Vehicles Tax Credits (Inflation Reduction Act of 2022) | <p>The Inflation Reduction Act of 2022 extends tax credits for EVs and establishes new tax credits for used EVs and commercial EVs:</p> <ul style="list-style-type: none"> • Light Duty EV Tax Credit: Up to \$7,500 to switch to an EV, extended through 2032. • Used EV Tax Credit: For the first time, used EVs will be eligible for federal tax credits of up to \$4,000 or 30% of the sales price, whichever is lower. The sales price must be less than \$25,000 and the vehicle must be at least two years old. • Commercial EV and Fuel Cell EV Tax Credit: New tax credit available to businesses, up to 15% for plug-in hybrid EVs and up to 30% for EVs and fuel cell EVs. As of December 2022, the credit extends to commercial and tax-exempt entities, making government entities eligible to claim the credit. The credit is up to \$7,500 for vehicles under 14,000 pounds and up to \$40,000 for all other vehicles. • EV Charging Equipment Tax Credit: Federal tax credit on charging equipment in low-income or non-urban areas that has been extended through 2032. For individual/residential uses, the tax credit remains unchanged at 30%, up to \$1,000. For commercial uses, the tax credit is 6%, with a maximum credit of \$100,000 per unit. • Clean Heavy-Duty Vehicles: \$1 billion allocated to replace Class 6 and 7 heavy-duty vehicles with clean EVs. These rebates can be used for up to 100% of the costs for vehicles, infrastructure, training, and planning and technical activities to support electrification. • Diesel Emissions Reduction Act Program: \$60 million to fund grants and rebates that protect human health and improve air quality by reducing harmful emissions from diesel engines. • Domestic Manufacturing Conversion Grants: \$2 billion in cost-shared grants for domestic production of efficient hybrid, plug-in electric hybrid, plug-in electric drive, and hydrogen fuel cell EVs. • Advanced Technology Vehicle Manufacturing Program: \$3 billion to originate, underwrite, and service loans to eligible automotive manufacturers and component manufacturers to finance the cost of re-equipping, expanding, or establishing manufacturing facilities in the U.S. to produce Advanced Technology Vehicles and qualifying components. • Advanced Manufacturing Production Credit: A long-term extension of this tax credit for investments in manufacturing facilities for clean energy technologies. |
| Moving Ahead for Progress in the 21st Century (MAP-21) | Federal funding through the MAP-21 program is administered through the state and regional governments. MAP-21 funding is administered through the California Department of Transportation, metropolitan planning organizations (the Southern California Association of Governments in Southern California), and regional transportation planning agencies (the Riverside County Transportation Commission in Riverside County). Most of the funding programs are transportation versus recreation oriented, with an emphasis on reducing auto trips and providing an intermodal connection. In most cases, MAP-21 provides matching grants of 50–100%. |
| Safe Routes to Schools | Safe Routes to Schools is an international movement focused on increasing the number of children who walk or bike to school by funding projects that remove barriers to doing so. These barriers include a lack of infrastructure and non-infrastructure projects, safety, and limited programs that promote walking and bicycling. In California, separate Safe Routes to School programs are available at both the state and federal levels, and both programs fund qualifying infrastructure projects. |

| PROGRAM | DESCRIPTION |
|---|---|
| <p>U.S. Department of Energy (DOE)</p> | <p>The federal government, including DOE, provides grants and other financial incentives to local governments for renewable energy installations and alternative fuel vehicle and fueling infrastructure. Information regarding programs is available at http://www.grants.gov.</p> <p>DOE's Zero-Emission Transit Bus Tax Exemption exempts zero-emission transit buses from state sales and use taxes when the buses are sold to public agencies in California. Through the Hybrid and Zero Emission Truck and Bus Voucher Incentive Project and Low Oxides of Nitrogen (NOx) Engine Incentives, CARB provides vouchers to eligible fleets to reduce the incremental cost of qualified electric, hybrid, or natural gas trucks and buses at the time of purchase. Vouchers are available on a first-come, first-served basis.</p> <p>The DOE Loan Programs Office provides loan guarantees for innovative clean energy projects, fossil projects, nuclear projects, and energy infrastructure reinvestment projects under the Title 17 Innovative Clean Energy Loan Guarantee Program, authorized by the Energy Policy Act of 2005. Title 17 helps eliminate gaps in commercial financing for energy projects in the United States that utilize innovative technology to reduce, avoid, or sequester greenhouse gas emissions. Projects for funding include the following:</p> <ul style="list-style-type: none"> • <i>Renewable Energy and Efficiency Energy projects</i> finance catalytic, replicable, and market-ready renewable energy and efficient energy technologies with \$4.5 billion of available loan guarantees. Technology areas of interest include Advanced Grid Integration & Storage; Drop-In Biofuels; Waste-to-Energy; Enhancement of Existing Facilities; and Efficiency Improvements. • <i>Advanced Fossil Energy projects</i> have the potential to reduce carbon emissions in hard-to-decarbonize sectors. Eligible projects can utilize any fossil fuel and may come from across the spectrum of production and use, including resource development, energy generation, and end use. The four technology areas of interest are Advanced Resource Development, Carbon Capture, Low-Carbon Power Systems, and Efficiency Improvements. • <i>The Carbon Dioxide Transportation Infrastructure program</i> offers access to capital for large-capacity, common-carrier CO₂ transport projects (e.g., pipelines, rail, shipping, and other transport methods). |
| <p>U.S. Department of Housing and Urban Development</p> | <p>The Home Improvement Program supports the implementation of energy efficient upgrades to qualifying low-to-moderate income households in owner-occupied single-family homes. The program is funded by the U.S. Department of Housing and Urban Development through allocation of the HOME Investment Partnerships Program formula grants.</p> |
| <p>USDA Supplemental Nutrition Assistance Program-Education (SNAP-Ed)</p> | <p>SNAP-Ed is a federally funded grant program that supports evidence-based nutrition education and obesity prevention interventions and projects for persons eligible for SNAP through complementary direct education, multi-level interventions, and community and public health approaches to improve nutrition.</p> |
| <p>USDA Water & Waste Disposal Loan & Grant Program</p> | <p>This program provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and stormwater drainage to households and businesses in eligible rural areas. Eligibility includes most state and local governmental entities, private nonprofits, and federally recognized tribes.</p> |
| <p>WaterSense</p> | <p>WaterSense is a voluntary partnership program sponsored by U.S. EPA and is both a label for water-efficient products and a resource for helping residents and businesses save water.</p> |
| <p>State Programs</p> | |
| <p>CAL FIRE</p> | <p>The CAL FIRE Urban and Community Forestry Program focuses on the use of trees and associated vegetation to provide multiple-benefit solutions and to mimic the functions of natural forests in neighborhoods. CAL FIRE offers grants to eligible applicants on an annual basis, as funding permits. These grants are designed to assist communities in creating or implementing multi-benefit projects with a focus on GHG emissions and providing benefits to disadvantaged communities.</p> <p>The Urban and Community Forestry Grant is provided to communities and projects that achieve multiple objectives for community protection, including vegetation management, fire risk reduction, GHG reductions, and habitat improvement.</p> |

| PROGRAM | DESCRIPTION |
|---|---|
| California Air Resources Board (CARB) | <p>CARB offers several grants, incentives, and credits programs to reduce on-road and off-road transportation emissions. Residents, businesses, and fleet operators can receive funds or incentives depending on the program.</p> <ul style="list-style-type: none"> • The California Vehicle Rebate Program provides up to \$7,000 for recipients to purchase or lease a new plug-in hybrid EV, battery EV, or fuel cell EV. The program prioritizes low-income recipients. • The Car Sharing and Mobility Options Program provides funding for bikeshare options in low-income areas. • The Carl Moyer Program provides funding to replace older heavy-duty diesel vehicles and equipment with cleaner technologies, primarily in environmental justice and low-income communities. • Clean Mobility Options Voucher Pilot Program funds zero-emission mobility projects such as carsharing, bikesharing, vanpooling, ride-on-demand services, and innovative transit services in disadvantaged communities. • The Bus Replacement Grant Program offers grants for the purchase of new zero-emission buses to replace old gasoline, diesel, compressed natural gas, or propane buses. • The Hybrid and Zero Emission Truck and Bus Voucher Incentive Project accelerates commercialization by providing point-of-sale vouchers to make advanced vehicles more affordable. • The Clean Vehicle Assistance Program provides grants and affordable financing to help California residents with gross household incomes less than or equal to 400% of the federal poverty level to purchase a new or used hybrid vehicle or EV. • The Clean Cars 4 All Program (formerly known as the Enhanced Fleet Modernization Plus-Up Program) helps get lower-income consumers into cleaner technology vehicles by retiring their older, higher-polluting vehicles and upgrading to cleaner vehicles. Participants also have the option to replace their older vehicles for alternative mobility options such as public transit passes or electric bicycles. • The Clean Off-Road Equipment Voucher Incentive Project promotes the purchase of clean technology over internal combustion options, targeting commercial-ready off-road products that have not yet achieved a significant market foothold. • The \$1 billion Proposition 1B Goods Movement Emission Reduction Program is a partnership between CARB and local agencies, air districts, and seaports to quickly reduce air pollutant emissions and health risks from freight movement along California's trade corridors. • The Lower-Emission School Bus Program provides funds to purchase new buses to replace old, high-emitting public school buses. • The Air Quality Improvement Program (AB 118) is a voluntary incentive program administered by CARB to fund clean vehicle and equipment projects, research on biofuels production, and the air quality impacts of alternative fuels, and workforce training. • CARB provides the Low Carbon Transportation Investments and Air Quality Improvement Program which provides mobile source incentives to reduce GHG, criteria pollutant, and toxic air contaminant emissions through the deployment of advanced technology and clean transportation in the light-duty and heavy-duty sectors. |
| California Climate Investments (CCI) | <p>CCI uses proceeds from the cap-and-trade program to facilitate comprehensive and coordinated investments throughout California to further the state's climate goals. Through funding from the state's Greenhouse Gas Reduction Fund, CCI offers the following incentive programs:</p> <ul style="list-style-type: none"> • The California Vehicle Rebate Program provides funding for recipients to purchase or lease a new plug-in hybrid EV, battery EV, or fuel cell EV. • The Clean Vehicle Assistance Program provides grants and affordable financing to help low-income Californians purchase a new or used hybrid vehicle or EV. • Various programs promote clean energy and energy efficiency. |
| California Department of Community Services and Development | <p>The Low Income Weatherization Program supports owners and residents to lower their utility costs, save energy, and reduce GHG emissions from multifamily properties. This program is funded by the California Department of Community Services and Development and covers approximately 30–100% of energy efficiency upgrade costs for low-income residents in disadvantaged communities. The program also provides free property assessments, design assistance, and contractor coordination.</p> |

| PROGRAM | DESCRIPTION |
|--|---|
| California Department of Conservation | The Multibenefit Land Repurposing Program funds groundwater sustainability projects that reduce groundwater use, repurpose irrigated agricultural land, and provide wildlife habitat. The program seeks to increase regional capacity to repurpose agricultural land to reduce reliance on groundwater while providing community health, economic well-being, water supply, habitat, and climate benefits. |
| California Department of Fish and Wildlife (CDFW) | <p>CDFW implements a number of programs to support green infrastructure, parks, urban forestry, and agriculture, and ultimately reduce GHG emissions:</p> <ul style="list-style-type: none"> • Funding opportunities for multi-benefit ecosystem restoration and protection projects under both Proposition 1 and Proposition 68. Funding focuses on planning, implementation, and acquisition projects across multiple priorities. • The Wetlands Restoration for Greenhouse Gas Reduction Program, which restores wetland ecosystems to provide essential services to California’s people, wildlife, and fish. Wetlands have high carbon sequestration rates that can sequester carbon for decades. This program is part of CCI. |
| California Department of Motor Vehicles | California’s Motor Vehicle Registration Fee Program provides funding for projects that reduce air pollution from on- and off-road vehicles. Eligible projects include purchasing alternative fueled vehicles and developing alternative fueling infrastructure. Grant funding and distribution information is available from local air districts and on the program’s website. |
| California Department of Resources Recycling and Recovery (CalRecycle) | <p>CalRecycle grant programs allow jurisdictions to assist public and private entities in management of waste streams. Incorporated cities and counties in California are eligible for funds. Program funds are intended to:</p> <ul style="list-style-type: none"> • Reduce, reuse, and recycle all waste; • Reduce landfill disposal of organics, including food waste; • Encourage development of recycled-content products and markets; and • Protect public health and safety and foster environmental sustainability. <p>The Recycling Market Development Zone Program combines recycling with economic development to fuel new businesses, expand existing ones, create jobs, and divert waste from landfills. This program provides attractive loans, technical assistance, and free product marketing to businesses that use materials from the waste stream to manufacture their products and are located in a zone.</p> <p>The Farm & Ranch Solid Waste Cleanup and Abatement Grant Program provides funding to help cleanup and prevent illegal dumping on “farm and/or ranch” property. Funding includes reimbursement for administrative, recycling/disposal (tires), equipment, material, and personnel costs.</p> |
| California Department of Transportation (Caltrans) | <p>Caltrans offers funding programs to support implementation of bicycle and pedestrian infrastructure:</p> <ul style="list-style-type: none"> • The Active Transportation Program funds bike and pedestrian infrastructure projects, educational and promotional efforts, safe routes to school projects, and active transportation planning. The state awards half of the funds through a competitive grants process. Forty percent goes to metropolitan agencies to distribute and 10% goes to rural areas. At least 25% of all funds must benefit residents in disadvantaged communities. • Sustainable Communities Grants are issued to encourage local and regional planning that furthers state goals related to sustainability, preservation, mobility, safety, innovation, economy, health, and social equity. • The Strategic Partnerships Grants help to identify and address statewide, interregional, or regional transportation deficiencies on the state highway system in partnership with Caltrans. This program also funds transit-focused planning projects that address multimodal transportation deficiencies. • Transportation Development Act Article 3 (SB 821) funding, also known as the Local Transportation Fund, is used by cities for the planning and construction of bicycle and pedestrian facilities. |
| California Department of Food and Agriculture (CDFA) | <p>CDFA’s Alternative Manure Management Program provides financial assistance for the implementation of non-digester manure management practices to help reduce GHG emissions. The Fertilizer Research and Education Program funds research and education to advance the environmentally safe and agronomically sound use and handling of fertilizing materials.</p> |

| PROGRAM | DESCRIPTION |
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| <p>California Energy Commission (CEC)</p> | <p>The CEC funds both the California Capital Access Program and the CALeVIP program, which provide incentives for installation of vehicle charging infrastructure.</p> <p>The Southern California Incentive Project, part of CALeVIP, offers rebates of up to \$70,000 per DC fast EVSE installation at new sites and 75% of total project costs, and up to \$40,000 per DC fast EVSE installation at replacement or make-ready sites. Installations in disadvantaged communities are eligible for rebates for 80% of the total project cost, up to \$80,000 per DC fast EVSE, regardless of installation site type.</p> <p>The California Capital Access Program provides small business borrowers and lenders incentives to finance the design, development, purchase, and installation of EV charging stations in California.</p> <p>The CEC’s Clean Transportation Program (also known as Alternative and Renewable Fuel and Vehicle Technology Program) invests up to \$100 million annually to support innovation and accelerate the development and deployment of advanced transportation and fuel technologies.</p> <p>The CEC is also the primary funder of the state’s advanced microgrid projects, and to date has dedicated \$84.5 million in matching funding to develop 20 projects across the state.</p> <p>The CEC provides loan programs through the Energy Conservation Assistance Act (ECAA) that support energy efficiency and energy generation projects.</p> <ul style="list-style-type: none"> • The ECAA-Ed program provides zero-interest-rate loans to public school districts, charter schools, county offices of education, and state special schools. • The ECAA Low-Interest Loans program provides 1%-interest loans to local governments, special districts, public colleges and universities, public care institutions, and public hospitals for energy retrofits and some new construction projects. |
| <p>California Natural Resources Agency</p> | <p>The California Natural Resources Agency offers a variety of grant and loan programs within its departments and conservancies:</p> <ul style="list-style-type: none"> • The Urban Greening Grant Program funds projects that reduce GHG emissions by sequestering carbon, decreasing energy consumption, and reducing vehicle miles traveled. • The Environmental Enhancement & Mitigation Program funds projects that contribute to mitigation of the environmental effects of transportation facilities. These include urban forestry projects designed to offset vehicular CO₂ emissions. • The Urban Green Infrastructure Program provides funding for multi-benefit green infrastructure investments in or benefiting disadvantaged or severely disadvantaged communities. |
| <p>California Public Utilities Commission (CPUC)</p> | <p>CPUC administers several programs to incentivize electrification, reduce GHG emissions, and support lower income households:</p> <ul style="list-style-type: none"> • \$200 million for the Technology and Equipment for Clean Heating and Building Initiative for Low Emissions Development programs, to cut carbon emissions in buildings and low-income households from fossil fuel combustion. • The California Solar Initiative provides incentives to low-income customers installing solar PV systems and to all utility customers installing solar water heating systems. The California Solar Initiative has a Single-family Affordable Solar Homes Program, managed by GRID Alternatives, that provides qualified low-income homeowners fixed, upfront, capacity-based incentives to help offset the upfront cost of a solar electric system. • The Self-Generation Incentive Program provides incentives to support existing, new, and emerging distributed energy resources, with rebates for qualifying distributed energy systems installed on the customer’s side of the utility meter. Qualifying technologies include wind turbines, waste-heat-to-power technologies, pressure reduction turbines, internal combustion engines, microturbines, gas turbines, fuel cells, and advanced energy storage systems. • A \$1 billion investment has been made over five years for the statewide Transportation Electrification Program to help accelerate EV adoption, with 70% of the funds to go toward charging for medium- and heavy-duty vehicles and 30% to go toward light-duty charging at or near multiunit dwellings. The program offers rebates for customer-side (“behind-the-meter”) EV infrastructure investments at commercial, industrial, and residential sites beginning in 2025 and provides higher rebates for projects in underserved, disadvantaged, and tribal communities. • The California Alternate Rates for Energy (CARE) program offers up to 35% discounts on electric bills and a 20% discount on natural gas bills for qualifying lower-income households. • The Family Electric Rate Assistance Program offers an 18% discount on electricity bills for households whose income slightly exceeds CARE allowances. |

| PROGRAM | DESCRIPTION |
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| California State Board of Equalization | Section 73 of the California Revenue and Taxation Code allows a property tax exclusion for qualifying new solar installations, meaning that property taxes will not increase for individuals if they install solar on their property. This tax exclusion was set to expire in 2016, but is now extended through January 1, 2025. |
| California Department of Housing and Community Development (HCD) Local Early Action Planning (LEAP) Grant | <p>The LEAP Program provides over-the-counter grants complemented by technical assistance to local governments for the preparation and adoption of planning documents and process improvements that:</p> <ul style="list-style-type: none"> • Accelerate housing production. • Facilitate compliance to implement the sixth-cycle Regional Housing Needs Assessment. <p>Increasing the availability of affordable homes statewide is critical to bettering the quality of life of all Californians and to ending homelessness. In the 2019–20 Budget Act, Governor Gavin Newsom allocated \$250 million for all regions, cities, and counties to do their part by prioritizing planning activities that accelerate housing production to meet the identified needs of every community. With this allocation, HCD established the LEAP Program with \$119 million for cities and counties. LEAP provides one-time grant funding to cities and counties to update their planning documents and implement process improvements that will facilitate the acceleration of housing production and help local governments prepare for their sixth-cycle Regional Housing Needs Assessment much like the SB 2 Planning Grants.</p> |
| California State Transportation Agency | <p>The Transit and Intercity Rail Capital Program was created by SB 862 to provide grants from the state’s Greenhouse Gas Reduction Fund to fund transformative capital improvements that will modernize California’s intercity, commuter, and urban rail systems, and bus and ferry transit systems. The aim is to reduce GHG emissions by reducing congestion and vehicle miles traveled throughout California.</p> <p>The 2023 program includes approximately \$1.3 billion for seven projects in the six-county SCAG region, to improve regional transportation and reduce GHG emissions, congestion, and vehicle miles traveled. The funding includes \$600 million for the East San Fernando Valley Transit Corridor, part of the Los Angeles County Metropolitan Transportation Authority transit network.</p> |
| Energy Upgrade California | Energy Upgrade California is a statewide program that educates California residents about opportunities to manage energy use, identify clean-energy options, and find rebates and incentives to increase energy-efficiency. The program is supported by CPUC, the CEC, various utilities, regional energy networks, community choice aggregations, businesses, nonprofits, and local governments. The Gateway Cities Energy Leader Partnership offers assistance in understanding this program and finding contractors that can assess and complete projects that are funding-eligible. Funding is provided by investor-owned energy utility customers under the auspices of CPUC and the CEC. |
| Strategic Growth Council (SGC) | <p>SGC’s Affordable Housing and Sustainable Communities Program funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduces GHG emissions. Funding for the program is provided by the state’s Greenhouse Gas Reduction Fund.</p> <p>The Transformative Climate Communities Program funds community-led development and infrastructure projects that achieve major environmental, health, and economic benefits in California’s most disadvantaged communities. Funded by California’s Cap-and-Trade Program, the Transformative Climate Communities Program empowers the communities most affected by pollution to choose their own goals, strategies, and projects to enact transformational change—all with data-driven milestones and measurable outcomes.</p> <p>SGC’s Urban Greening Grant Program funds urban greening projects and plans that reduce energy consumption, conserve water, improve air and water quality, and provide other community benefits. These funds assist entities in developing a master urban greening plan that will ultimately result in projects to help the state meet its environmental goals and the creation of healthy communities. These funds also assist entities to preserve, enhance, increase or establish community green areas such as urban forests, open spaces, wetlands and community spaces (e.g., community gardens).</p> |

| PROGRAM | DESCRIPTION |
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| Regional Programs | |
| Clean Power Alliance (CPA) | <p>The CPA is the community choice aggregation serving local businesses and residents in greater Los Angeles County. CPA offers a variety of programs and funding sources geared toward local renewable energy generation and storage as well as demand response management. Since October 2022, customers in unincorporated Los Angeles County are receiving 100% renewable energy – wind, solar, geothermal – from CPA, compared to the 50% clean energy previously received. And most of the renewable energy is produced in California.</p> <p>The Powershare program offers income-qualified customers in under-resourced communities with discounted 100% renewable energy.</p> |
| Property Assessed Clean Energy (PACE) programs | <p>PACE programs offer financing of energy-efficient upgrades for different types of residential, commercial, and industrial properties. With the PACE framework, local governments provide initial funds for the installation of energy-efficient projects and renewable-energy systems. The property owner then repays the loan over a period of time. The Home Energy Renovation Opportunity program is an energy-efficient financing program designed specifically for residential upgrades where the loan becomes part of the property assessment and is repaid through property taxes.</p> |
| Proposition A Local Return transit fund | <p>Approved by voters in November 1980, Proposition A is a half-cent sales tax dedicated to transportation funding and was the first of its kind to address transportation challenges in Los Angeles County. Proposition A has funded transportation projects, improved bus service, initiated plans for a rail system that continues to be expanded today, and helped subsidize fares. The Proposition A expenditure plan includes three categories: 25% to Local Return programs, 35% to rail development, and 40% to discretionary.</p> |
| South Coast Air Quality Management District (SCAQMD) | <p>For the year 2018, AB 617 provided SCAQMD with \$10.7 million in funding to develop community emissions reduction plans, conduct community monitoring and analysis, and implement best available retrofit control technology for facilities in the cap-and-trade program. With the passage of AB 617, SCAQMD expects to receive \$107.5 million in new funding for eligible projects under the Carl Moyer Program, to replace older heavy-duty diesel vehicles and equipment with cleaner technologies, primarily in environmental justice and low-income communities.</p> <p>SCAQMD and the Mobile Source Air Pollution Reduction Review Committee provide Clean Transportation Funding to support a variety of emissions reduction programs including the Replace Your Ride Program and the Residential Electric Vehicle Charging Incentive Program. SCAQMD provides a variety of financial incentives to reduce emissions through the Vehicle and Engine Upgrade Programs, which include grants for incremental funding, subsidies, or vouchers, with many designed to promote voluntary introduction of new technologies on an accelerated schedule.</p> <ul style="list-style-type: none"> • The Heavy-Duty Zero Emission Vehicle Replacement Grant offers grants for the replacement or repower of eligible Class 7 and 8 heavy-duty vehicles with low NOx vehicles. • The Goods Movement Emission Reduction Program (Proposition 1B Program) provides funding for projects that reduce emissions from goods movement operations near ports, railyards, distribution centers, and roads with high truck traffic. <p>SCAQMD offers multiple rebates to incentivize installation of alternative fuel infrastructure and energy efficient upgrades, and improve air quality within the region.</p> <ul style="list-style-type: none"> • The Clean Fuels Fund provides grants for the installation of alternative fuel infrastructure, expediting the transition of gasoline- and diesel-powered vehicles to those that operate on cleaner burning alternatives such as natural gas. • The Electric Lawn Mower Rebate Program offsets the costs of purchasing an electric lawn mower. Participants can purchase a new electric lawn mower, turn in their old gasoline lawn mower to an approved dismantler for permanent destruction, and then receive a rebate based on the purchase price of the new electric lawn mower. • The CLEANair Furnace Rebate Program, implemented by the Electric & Gas Industries Association, provides rebates to residents who purchase and install a compliant furnace that meets the SCAQMD Rule 1111 NOx emission limit. |

| PROGRAM | DESCRIPTION |
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| Southern California Association of Governments (SCAG) | <p>SCAG provides a variety of services to assist local jurisdictions with implementing bicycle infrastructure and to encourage the community to use active modes of transportation.</p> <ul style="list-style-type: none"> • The Sustainable Communities Program provides direct technical assistance to jurisdictions to complete planning and policy efforts that enable implementation of the RTP/SCS. • SCAG’s Go Human program is a community outreach and advertising campaign with the goals of reducing traffic collisions in Southern California and encouraging people to walk and bike more. This program is funded by grants from the California Office of Traffic Safety, the California Active Transportation Program, the Mobile Source Air Pollution Reduction Review Committee, and other local sponsors. The program encourages active transportation through education, advocacy, information sharing, and events. |
| Metropolitan Water District of Southern California (MWD) | <p>SoCal WaterSmart program is a partnership between MWD and its 26 member agencies including West Basin Municipal Water District, to fund home and business rebates.</p> |
| Southern California Edison (SCE) | <p>SCE’s Charge Ready Program assists businesses, government organizations, and property owners with deploying the infrastructure and equipment necessary to support EV charging stations at their multi-family buildings, public sector, or business locations. The program includes rebates for EVSE installation, as well as technical assistance. Rebate amounts vary, and sites located in disadvantaged communities are eligible for additional rebates.</p> <p>The Charge Ready Transit Bus pilot program, designed specifically for transit agencies, provides financial assistance for bus charging stations and supporting electrical infrastructure.</p> <p>SCE offers the following tools and resources that enable residential customers and businesses to manage costs, reduce energy usage, and get payment assistance:</p> <ul style="list-style-type: none"> • The Energy Savings Assistance program is available to certain homeowners and renters who receive electric services through a residential meter and have an SCE account. • For businesses, SCE offers Continuous Energy Improvement, a free consulting service. • The Mobile Home Upgrade program offers no-cost energy conservation evaluations by an energy specialist to identify opportunities for energy reduction and savings on electricity bills. The program also offers energy efficiency installations and improvements and is available to mobile homes or mobile home communities that have an active SCE service account. • The Direct Install Program for businesses to reduce energy costs. Under this program, businesses receive an energy efficiency evaluation and installation of energy efficient equipment including LED lights, fluorescent lighting, hi-bay lighting, refrigeration, and LED signs. • SCE offers special electric vehicle Time-of-Use rate plans that offer reduced rates when customers charge during off-peak hours. • SCE customers can join SCE’s Green Rate or Community Renewables Program to tap into the power of the sun through new renewable energy options, without having to install their own solar panels. • SCE’s Home Efficiency Guide provides information regarding home energy use and conservation opportunities. The Home Efficiency Guide emphasizes the benefits of electric appliances including increased energy efficiency, energy bill reduction, improvements to indoor air quality, and overall environmental benefits. |
| Southern California Gas Company (SoCal Gas)/Sempra Energy | <p>SoCalGas offers programs to single-family residential, multifamily residential, and commercial customers to identify energy efficiency improvements that save money and energy. Cities can join a Local Government Partnership with SoCalGas to gain access to increased rebates and incentives, free facility audits, and assistance for community outreach/events. These programs are funded by California utility customers under the auspices of CPUC.</p> <ul style="list-style-type: none"> • The Energy Savings Assistance Program provides weatherization services to low-income households served by SCE who meet the CARE program income guidelines. • The Comprehensive Mobile Home Program offers no-cost energy conservation evaluations and energy efficiency installations such as low-flow showerheads and faucet aerator. The program also provides natural gas energy efficiency improvements such as duct tests and seal of heating, ventilation, and air conditioning systems. • The Commercial Direct Install Program offers long-term energy savings to qualifying customers. Through this program, a trained energy efficiency representative will evaluate energy and water use to identify areas for businesses to save energy and water. |

| PROGRAM | DESCRIPTION |
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| | <ul style="list-style-type: none"> • The Residential Direct Install Program has no income requirements and is available to renters and homeowners living in single-family and multifamily dwellings. This no-cost program provides energy improvements to eligible customers to help make their homes more comfortable and help conserve energy, which could lead to lower utility bills. • The SoCalGas Marketplace is an online tool that features incentives for energy-efficient home appliances and consumer electronics. • SoCalGas offers a special residential natural gas vehicle billing rate for customers who choose this option. Refueling a natural gas vehicle at home on this rate may yield a lower refueling cost compared with using a public station. |
| Local Funding | |
| County General Fund | Annual budgeting allocations fund departmental operations for staff resources to implement programs. Programs needing funding beyond staff resources are assessed through the annual budgeting and prioritization process. |
| Private and Nongovernmental Support | |
| Community-based nonprofits | Community-based nonprofits should be considered as resources for direct and indirect support, including funding, for program activation and operations. For example, GRID Alternatives helps provide access to clean, renewable solar energy to low-income families and hands-on job training to help workers enter the solar industry. |
| Private investors | Private investors may provide funding to local governments. For example, energy service companies can finance the upfront investments in energy efficiency, reimbursed by the local government over a contract period. Private companies may finance solar power installations, and then recoup their investment by selling the resulting power to the building owner. |
| Independent Energy Purchase/Solar Services Model | Local governments can finance solar PV system purchases and installations at no upfront cost by signing a long-term power purchase agreement with a developer and agreeing to host a PV system at its facility. The developer pays for the design, construction, and installation of the system, often arranging third-party financing. The investor who provides the upfront capital and owns the project receives returns from payments from the host developer. The host's payments are at a predetermined fixed price and are assessed much like a monthly utility payment. The local government, as host, benefits from the fixed-income price payments, reduced peaked energy costs, and reduced GHG emissions, all at no upfront cost. |

Abbreviations: AB = Assembly Bill; CAL FIRE = California Department of Forestry and Fire Protection; CALeVIP = California Electric Vehicle Infrastructure Project; CalRecycle = California Department of Resources Recycling and Recovery; Caltrans = California Department of Transportation; CAP = climate action plan; CARB = California Air Resources Board; CARE = California Alternate Rates for Energy; CCI = California Climate Investments; CDFA = California Department of Food and Agriculture; CDFW = California Department of Fish and Wildlife; CEC = California Energy Commission; CIFIA = Carbon Dioxide Transportation Infrastructure Finance and Innovation; CO₂ = carbon dioxide; County = County of Los Angeles government; CPA = Clean Power Alliance; CPUC = California Public Utilities Commission; DC = direct current; DOE = U.S. Department of Energy; ECAA = Energy Conservation Assistance Act; EEM = Energy Efficient Mortgage; EV = electric vehicle; EVSE = electric vehicle supply equipment; FHA = Federal Housing Administration; GHG = greenhouse gas; HCD = California Department of Housing and Community Development; kWh = kilowatt-hour; LEAP = Local Early Action Planning; LED = light-emitting diode; LiHEAP = Low Income Home Energy Assistance Program; MAP-21 = Moving Ahead for Progress in the 21st Century; MWD = Metropolitan Water District of Southern California; NO_x = oxides of nitrogen; P2 = Pollution Prevention; PACE = Property Assessed Clean Energy; PV = photovoltaic; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SCE = Southern California Edison; SGC = Strategic Growth Council; SNAP = Supplemental Nutrition Assistance Program; SNAP-Ed = Supplemental Nutrition Assistance Program-Education; SoCalGas = Southern California Gas Company; U.S. EPA = U.S. Environmental Protection Agency; USDA = U.S. Department of Agriculture

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APPENDIX H

2022 Scoping Plan Recommendations Consistency

Table H-1 compares the *2045 Los Angeles County Climate Action Plan* with the California Air Resources Board’s recommendations for local governments contained in the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) (CARB, 2022). The focus of the table is on Appendix D, *Local Actions*, of the 2022 Scoping Plan. This comparison solely serves as a demonstration of how the 2045 CAP aligns with the State’s pathway to GHG emission reductions.

Reference:

California Air Resources Board (CARB), 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Sacramento, CA. November 16, 2022.

Table H-1: Consistency of the 2045 CAP with the 2022 Scoping Plan Recommendations

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
|--|---|
| Climate Action Plan Priority Strategies (2022 Scoping Plan Appendix D, Table 1) | |
| <p>Convert local government fleets to ZEVs and provide EV charging at public sites.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales: 140,000 total new public and private shared EVCS by 2045; 25,000 total new EVCS at County facilities. <ul style="list-style-type: none"> ○ T6.2: Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County. ○ T6.4: Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities. • T7: Electrify County Fleet Vehicles: 100% light-duty (LD) vehicles are ZEV by 2045; 100% ZEV bus and shuttle vehicles by 2045; all new LD purchases ZEV. <ul style="list-style-type: none"> ○ T7.1: Electrify the County bus and shuttle vehicle fleet, and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. ○ T7.2: Electrify light-duty County fleet vehicles. • T8: Accelerate Freight Decarbonization: 95% of MD/HD vehicles are ZEV by 2045. <ul style="list-style-type: none"> ○ T8.4: Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. ○ T8.5: Electrify the County medium- and heavy-duty vehicle fleet. • CAP Checklist: <ul style="list-style-type: none"> ○ For all new municipal projects and facilities that include the purchase or operation of new fleet vehicles, including public transit buses and shuttles, all such fleet vehicles must be ZEVs. This includes both County-owned vehicles along with contractor or vendor fleet vehicles. ○ The project must incorporate zero emission vehicle (ZEV) infrastructure and incentives into its design. |
| <p>Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales: <ul style="list-style-type: none"> ○ T6.1: Develop a Zero Emission Vehicle Master Plan. ○ T6.3: Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. • T8: Accelerate Freight Decarbonization: <ul style="list-style-type: none"> ○ T8.3: Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
|--|---|
| | <p>fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale.</p> <ul style="list-style-type: none"> ○ T8.4: Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. ● T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment: 95% of off-road equipment in unincorporated Los Angeles County is ZEV by 2045; Increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in the unincorporated Los Angeles County that are ZEVs to 100 percent by 2045. <ul style="list-style-type: none"> ○ T9.1: Partner with the South Coast Air Quality Management District and Antelope Valley Air Quality Management District to increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment. ○ T9.2: Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. ○ T9.3: Require, to the maximum extent feasible, the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment for County projects. ● CAP Checklist: The project must incorporate zero emission vehicle (ZEV) infrastructure and incentives into its design. |
| <p>Reduce or eliminate minimum parking standards.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> ● T5: Limit and Remove Parking Minimums: Reduce parking stipulations to reduce parking supply and encourage transit use; Unbundle parking costs to reflect cost of parking; Implement parking pricing to encourage “Park-once” behavior. <ul style="list-style-type: none"> ○ T5.1: Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, development of planning strategies for transitioning land dedicated to parking to alternative transit and public uses, and incentives for developers to provide less than maximum allowable parking. ● CAP Checklist: Implement parking limitations. |
| <p>Implement Complete Streets policies and investments, consistent with general plan circulation element requirements.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> ● T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Increase bikeway miles by 300% by 2035; Implement the County Bicycle Master Plan; Complete updates to the County’s Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years. <ul style="list-style-type: none"> ○ T3.1 through T3.3. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
|---|--|
| <p>Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.</p> | <ul style="list-style-type: none"> • T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: All transit corridors will have micromobility service; Improved services and access for children, elderly, disabled, and users needing accommodations for bicycles or active transportation. <ul style="list-style-type: none"> ○ T4.1: Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. ○ T4.4: Collaborate with Metro and other transit providers to set aside maintenance funds to ensure that public transit facilities, including stations and stops, are safe and clean to enhance the transit experience and increase ridership. ○ T4.8: Establish temporary and permanent car-free areas. ○ T4.10: Collaborate with Metro and other transit providers to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission. • CAP Checklist: <ul style="list-style-type: none"> ○ The project must incorporate pedestrian and bicycle infrastructure into its design. ○ The project must comply with the County’s TDM ordinance at the time of project approval. |
| | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • Strategy 2: Increase Densities and Diversity of Land Uses Near Transit. • T1: Increase Density Near High-Quality Transit Areas: Achieve a minimum of 20 dwelling units (DUs) per acre (maximum of 30 to 150 DUs per acre) for HQTAs. <ul style="list-style-type: none"> ○ T1.1: Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. • T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use: By 2030, achieve a job density of 300 jobs per acre; For communities with an imbalance of jobs/housing (+ 20%), develop community plans to identify and quantify strategies for bringing below 20%. <ul style="list-style-type: none"> ○ T2.1: Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. • T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: By 2030, double transit service hours from 560,000 to 1.12 million; by 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares; by 2030, ensure that 75% of unincorporated Los Angeles County residents live within one-half mile of shuttle or mobility service; etc. <ul style="list-style-type: none"> ○ T4.1: Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| | <ul style="list-style-type: none"> ○ T4.2 through T4.4. ○ T4.6: Offer free transit passes for students, youth, seniors, people with disabilities, and low-income populations. ○ T4.7 through T4.10. ● CAP Checklist: <ul style="list-style-type: none"> ○ If the project is located within a High Quality Transit Area (HQTA), Specific Plan, or Area Plan, it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Update rezoning. ○ The project must comply with the County’s TDM ordinance at the time of project approval ○ The project must comply with the County’s current Transportation Impact Analysis (TIA) Guidelines. |
| <p>Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> ● T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales. <ul style="list-style-type: none"> ○ T6.6: Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options. ● T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Increase bikeway miles by 300% by 2035; Implement the County Bicycle Master Plan; Complete updates to the County’s Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years. <ul style="list-style-type: none"> ○ T3.1 through T3.3. ● T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: All transit corridors will have micromobility service; improved services and access for children, elderly, disabled, and users needing accommodations for bicycles or active transportation. <ul style="list-style-type: none"> ○ T4.1: Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. ○ T4.8: Establish temporary and permanent car-free areas. ○ T4.10: Collaborate with Metro and other transit providers to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission. ● CAP Checklist: <ul style="list-style-type: none"> ○ The project must incorporate pedestrian and bicycle infrastructure into its design. ○ The project must incorporate zero emission vehicle (ZEV) infrastructure and incentives into its design. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| <p>Implement parking pricing or transportation demand management pricing strategies.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation. <ul style="list-style-type: none"> ○ T4.5: Collaborate with Metro and other transit providers to develop and implement a transportation demand management (TDM) ordinance that requires development projects to incorporate measures such as subsidized transit passes and car share. • T5: Limit and Remove Parking Minimums: Parking strategies such as parking maximums, unbundling parking, or market price parking can help reduce VMT. • CAP Checklist: The project must comply with the County's TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. |
| <p>Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood).</p> | <p>The 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions as identified in the Land Use Element and 2021–2029 Revised County of Los Angeles Housing Element (2021–2029 Housing Element). No changes to General Plan land use designations, zoning, land use, or specific projects are proposed as part of the 2045 CAP.</p> <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • T1: Increase Density Near High-Quality Transit Areas. <ul style="list-style-type: none"> ○ T1.1: Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. ○ T1.2: Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. • T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use. <ul style="list-style-type: none"> ○ T2.1: Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. • CAP Checklist: <ul style="list-style-type: none"> ○ If the project is located within a High Quality Transit Area (HQTA), Specific Plan, or Area Plan, it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Update rezoning. ○ The project must comply with the County's TDM ordinance at the time of project approval. ○ The project must comply with the County's current Transportation Impact Analysis (TIA) Guidelines. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| <p>Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements).</p> | <p>The 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions as identified in the Land Use Element and 2021–2029 Revised County of Los Angeles Housing Element (2021–2029 Housing Element). No changes to General Plan land use designations, zoning, land use, or specific projects are proposed as part of the 2045 CAP.</p> <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • Strategy 9: Conserve Forests and Connect Wildlands and Working Lands. • A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands: Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County: Reduce the amount of natural land converted for urbanized uses: 25% by 2030 (53 hectares conserved annually), 50% by 2035 (106 hectares conserved annually), 75% by 2045 (159 hectares conserved annually); Conserve and restore natural forest land: 2,000 acres by 2030, 4,000 acres by 2035, 6,000 acres by 2045. <ul style="list-style-type: none"> ○ A1.1: Develop an open space conservation and land acquisition strategy that prioritizes wildlife connectivity to conserve native habitats for carbon sequestration. ○ A1.2: Employ ecosystem-appropriate vegetation management of wildlands based on the best available science to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Leverage tools such as the Unified Land Management Plan and the Countywide Community Wildfire Prevention Plan. • CAP Checklist: For all projects involving the preservation, conservation, and restoration of agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County, the project may: <ul style="list-style-type: none"> ○ Support the use of public and private land for urban and peri-urban agriculture, such as community gardens, and including urban vertical surfaces. ○ Conserve and restore natural forest lands, wetlands, and wildlands through land acquisitions and conservation easements. ○ Preserve existing agricultural and farmlands, including those mapped in unincorporated Los Angeles County as Agricultural Opportunity Areas. Expand adjoining areas to enlarge farmland area. ○ Actively manage forests to reduce wildfire risk and prevent carbon loss in forest lands. |

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| <p>Adopt all-electric new construction reach codes for residential and commercial uses.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • E2: Standardize All-Electric New Development: This measure aims to electrify all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face; All applicable new buildings will be all electric; Residential: 90% all-electric by 2030, 95% by 2035, and 100% by 2045; Nonresidential: 90% all-electric by 2030 (except large industry and possibly food service) 95% by 2035, and 100% by 2045. <ul style="list-style-type: none"> ○ E2.1: Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • CAP Checklist: For projects under construction before 2030, the project must be fully electric with no natural gas infrastructure or appliances, as specified in the City’s all-electric buildings ordinance, unless the project meets specific exemptions identified in the ordinance. For projects under construction after 2030, the project must be zero-net-energy and fully electric with no natural gas infrastructure or appliances, as specified in the City’s ZNE ordinance, unless the project meets specific exemptions identified in the ordinance. |
| <p>Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • E1: Transition Existing Buildings to All-Electric. <ul style="list-style-type: none"> ○ E1.5: Create a comprehensive fund aggregation program to support energy efficiency, decarbonization, and resilience in new and existing affordable housing. ○ E1.6: Create and resource an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing. • E4: Improve Energy Efficiency of Existing Buildings: Retrofit existing building stock to reduce overall unincorporated Los Angeles County energy use: Reduce building Energy Use Intensity below 2015 levels 20% for residential, 15% for industrial, and 25% for commercial by 2030; 25% for residential and industrial and 35% for commercial by 2035; and 50% for residential and industrial and 50% for commercial by 2045. <ul style="list-style-type: none"> ○ E4.1: Adopt Building Performance Standards for energy efficiency in existing buildings. ○ E4.2: Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency. ○ E4.3: Convert existing County-owned heat-trapping surfaces to cool or green surfaces. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| | <ul style="list-style-type: none"> • CAP Checklist: Projects that include a retrofit, remodel, or redesign of an existing building must incorporate the following design elements: <ul style="list-style-type: none"> ○ All space heating and water heating must be electric. ○ With the exception of restaurants, all cooking appliances must be electric. ○ For restaurants, use electric cooking appliances to the maximum extent feasible. ○ Comply with all applicable Building Performance Standards. ○ Comply with all building carbon intensity limits. ○ If the project is a major renovation, achieve ZNE and/or comply with the City's ZNE ordinance. |
| <p>Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • E1: Transition Existing Buildings to All-Electric: Electrify 80% of residential buildings and 60% of nonresidential by 2045; require ZNE for all major renovations by 2045. <ul style="list-style-type: none"> ○ E1.1: Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. ○ E1.2: Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. ○ E1.3: Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. ○ E1.4: Create and resource a plan for phased electrification of County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. • CAP Checklist: Projects that include a retrofit, remodel, or redesign of an existing building must incorporate the following design elements: <ul style="list-style-type: none"> ○ All space heating and water heating must be electric. ○ With the exception of restaurants, all cooking appliances must be electric. ○ For restaurants, use electric cooking appliances to the maximum extent feasible. ○ Comply with all applicable Building Performance Standards. ○ Comply with all building carbon intensity limits. ○ If the project is a major renovation, achieve ZNE and/or comply with the City's ZNE ordinance. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| <p>Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • ES2: Procure Zero-Carbon Electricity: 100% enrollment in zero-carbon electricity service by 2030. <ul style="list-style-type: none"> ○ ES2.1: Transition all County facilities within unincorporated areas to CPA's 100% Green Power option, SCE's 100% Green Rate option, or other available 100% renewable electricity service. ○ ES2.2: Complete enrollment of the community in CPA's 100% Green Power or SCE's Green Rate option. • ES3: Increase Renewable Energy Production: Install rooftop solar PV on 35% of existing residential buildings and 32% of commercial buildings by 2045; install rooftop solar PV on 80% of new multifamily residential buildings and 40% of all new commercial buildings by 2030. <ul style="list-style-type: none"> ○ ES3.1: Require rooftop solar PV for all new development. ○ ES3.2: Install rooftop solar PV at existing buildings. ○ ES3.5: Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings. ○ ES3.6: Streamline and prioritize permitting for solar and battery storage projects. • ES4: Increase Energy Resilience: Achieve community electricity storage and generation capacity equal to the community-wide 24-hour average usage by 2035/2045. <ul style="list-style-type: none"> ○ ES4.1: Develop a program to deploy community resilience hubs at scale ○ ES4.2: Invest in energy storage and microgrids at critical County facilities through CPA's Power Ready Program. ○ ES4.3: Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency. ○ ES4.4: Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management and peak shaving to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. ○ ES4.5: Develop a Countywide program to promote energy efficiency and resilience measures in facilities providing critical community services • CAP Checklist: <ul style="list-style-type: none"> ○ The project must utilize 100% zero-carbon electricity on-site. ○ To the extent feasible, the project must install energy storage systems and use a building-scale or community microgrid to support demand management and peak shaving. |

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| <p>Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • ES3: Increase Renewable Energy Production: Install 20,000 kW of solar PV at County facilities. <ul style="list-style-type: none"> ○ ES3.3: Identify and install solar PV systems at existing viable County facilities and properties. ○ ES3.4: Explore the feasibility to install community-shared solar facilities on County properties where opportunities exist. ○ ES3.6: Streamline and prioritize permitting for solar and battery storage projects. • ES4: Increase Energy Resilience: Establish a community resilience hub program to equip community serving County facilities (e.g., libraries, rec centers, senior centers); Provide solar and battery systems sufficient to support emergency cooling and other emergency functions; Locate at least one hub in each County district, with focus on vulnerable populations. <ul style="list-style-type: none"> ○ ES4.1: Develop a program to deploy community resilience hubs at scale. ○ ES4.2: Invest in energy storage and microgrids at critical County facilities through CPA’s Power Ready Program. ○ ES4.4: Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management and peak shaving to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. • CAP Checklist: <ul style="list-style-type: none"> ○ The project must utilize 100% zero-carbon electricity on-site. ○ To the extent feasible, the project must install energy storage systems and use a building-scale or community microgrid to support demand management and peak shaving. |
| <p>Climate Action Plan Targets & Performance Standards (2022 Scoping Plan Appendix D, Table 2)</p> | |
| <p>Scoping Plan Scenario: 100 percent of light-duty vehicle sales are ZEVs by 2035.</p> <p>Recommendation: Potential data sources and tools to localize this for target-setting include EMFAC Fleet Database (by county) and Scenario Analysis Tool and Department of Motor Vehicles Database (by fuel type and registration).</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> • T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales: Increase the fleetwide percentage total amount of light-duty vehicles in unincorporated Los Angeles County that are ZEVs to: 30% by 2030, 50% by 2035, and 90% by 2045; Increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to: 68% by 2030 and 100% by 2035. <ul style="list-style-type: none"> ○ T6.1: Develop a Zero Emission Vehicle Master Plan. ○ T6.3: Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. |

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| <p>Scoping Plan Scenario: VMT per capita reduced 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045; Potential data sources to localize this for target-setting include VMT modeling outputs prepared for, or consistent with, the travel outcomes associated with the adopted SCS or other applicable regional plan.</p> <p>Recommendation: Potential data sources to localize this for target-setting include VMT modeling outputs prepared for, or consistent with, the travel outcomes associated with the adopted SCS or other applicable regional plan.</p> | <ul style="list-style-type: none"> • CAP Checklist: <ul style="list-style-type: none"> ○ For all new municipal projects and facilities that include the purchase or operation of new fleet vehicles, including public transit buses and shuttles, all such fleet vehicles must be ZEVs. This includes both County-owned vehicles and contractor or vendor fleet vehicles. ○ The project must incorporate ZEV infrastructure and incentives into its design. <p>The 2045 CAP is consistent with this recommendation through the following measures and actions. The 2045 CAP does not achieve the same levels of per-capita VMT reduction as the Scoping Plan Scenario: Compared to 2019 levels, the CAP achieves a 10% reduction in per-capita VMT by 2030, 12% by 2035, and 16% by 2045, which is extremely aggressive for unincorporated Los Angeles County. However, the 2045 CAP is consistent with recommended approach using regional VMT modeling outputs/SCS implementation.</p> <ul style="list-style-type: none"> • Strategy 2: Increase Densities and Diversity of Land Uses Near Transit. • T1: Increase Density Near High-Quality Transit Areas: Achieve a minimum of 20 dwelling units (DUs) per acre (maximum of 30 to 150 DUs per acre) for HQTAs. <ul style="list-style-type: none"> ○ T1.1 and T1.2. • T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use: By 2030, achieve a job density of 300 jobs per acre; For communities with an imbalance of jobs/housing (+ 20%), develop community plans to identify and quantify strategies for bringing below 20%. <ul style="list-style-type: none"> ○ T2.1: Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. • T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Increase bikeway miles by 300% by 2035; Implement the County Bicycle Master Plan; Complete updates to the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years. <ul style="list-style-type: none"> ○ T3.1 through T3.3. • T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: By 2030, double transit service hours from 560,000 to 1.12 million; by 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares 100% of all transit routes; by 2030, ensure that 75% of unincorporated Los Angeles County residents live within one-half mile of shuttle or mobility service. <ul style="list-style-type: none"> ○ T4.1 through T4.10. • CAP Checklist: <ul style="list-style-type: none"> ○ If the project is located within a High Quality Transit Area (HQTA), Specific Plan, or Area Plan, it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Update rezoning. ○ The project must comply with the County's TDM ordinance at the time of project approval. |

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| | <ul style="list-style-type: none"> ○ The project must comply with the County’s current Transportation Impact Analysis (TIA) Guidelines. ○ The project must incorporate pedestrian and bicycle infrastructure into its design. ○ The project must comply with the County’s TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. |
| <p>Scoping Plan Scenario: All electric appliances in new construction beginning 2026 (residential) and 2029 (commercial).</p> <p>Recommendation: Potential data sources to localize these for target-setting include: Commercial Building Energy Consumption Survey, California Commercial End Use Survey, Residential Appliance Saturation Survey.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> ● E2: Standardize All-Electric New Development: All applicable new buildings will be all electric; Residential: 90% all-electric by 2030, 95% by 2035, and 100% by 2045; Nonresidential: 90% all-electric by 2030 (except large industry and possibly food service), 95% by 2035, and 100% by 2045. <ul style="list-style-type: none"> ○ E2.1: Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. ● CAP Checklist: For projects under construction before 2030, the project must be fully electric with no natural gas infrastructure or appliances, as specified in the City’s all-electric buildings ordinance, unless the project meets specific exemptions identified in the ordinance. For projects under construction after 2030, the project must be zero-net-energy and fully electric with no natural gas infrastructure or appliances, as specified in the City’s ZNE ordinance, unless the project meets specific exemptions identified in the ordinance. |
| <p>Scoping Plan Scenario: For existing residential buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2035 (appliances replaced at end of life).</p> <p>Recommendation: Potential data sources to localize these for target-setting include: Commercial Building Energy Consumption Survey, California Commercial End Use Survey, Residential Appliance Saturation Survey.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> ● E1: Transition Existing Buildings to All-Electric: Electrify all the existing residential buildings stock 25% by 2030, 40% by 2035, 80% by 2045. <ul style="list-style-type: none"> ○ E1.1: Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. ○ E1.2: Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. ○ E1.3: Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| | <ul style="list-style-type: none"> ○ E1.5: Create a comprehensive fund aggregation program to support energy efficiency, decarbonization and resilience in new and existing affordable housing. ○ E1.6: Create and resource an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing. ● CAP Checklist: Projects that include a retrofit, remodel, or redesign of an existing building must incorporate the following design elements: <ul style="list-style-type: none"> ○ All space heating and water heating must be electric. ○ With the exception of restaurants, all cooking appliances must be electric. ○ For restaurants, use electric cooking appliances to the maximum extent feasible. ○ Comply with all applicable Building Performance Standards. ○ Comply with all building carbon intensity limits. ○ If the project is a major renovation, achieve ZNE and/or comply with the City's ZNE ordinance. |
| <p>Scoping Plan Scenario: For existing commercial buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2045 (appliances replaced at end of life).</p> <p>Recommendation: Potential data sources to localize these for target-setting include: Commercial Building Energy Consumption Survey, California Commercial End Use Survey, Residential Appliance Saturation Survey.</p> | <p>The 2045 CAP is consistent with this recommendation through the following measures and actions:</p> <ul style="list-style-type: none"> ● E1: Transition Existing Buildings to All-Electric: Electrify all the existing nonresidential buildings stock 15% by 2030, 25% by 2035, 60% by 2045; require ZNE for all major renovations by 2045. <ul style="list-style-type: none"> ○ E1.1: Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. ○ E1.2: Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. ○ E1.3: Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. ○ E1.5: Create a comprehensive fund aggregation program to support energy efficiency, decarbonization, and resilience in new and existing affordable housing. ○ E1.6: Create and resource an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing. ● CAP Checklist: Projects that include a retrofit, remodel, or redesign of an existing building must incorporate the following design elements: <ul style="list-style-type: none"> ○ All space heating and water heating must be electric. ○ With the exception of restaurants, all cooking appliances must be electric. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| | <ul style="list-style-type: none"> ○ For restaurants, use electric cooking appliances to the maximum extent feasible. ○ Comply with all applicable Building Performance Standards. ○ Comply with all building carbon intensity limits. ○ If the project is a major renovation, achieve ZNE and/or comply with the City’s ZNE ordinance. |
| Greenhouse Gas Targets (2022 Scoping Plan, pursuant to AB 1279) | |
| <p>85% below 1990 levels by 2045.</p> | <p>The 2045 CAP is consistent with this target for the following reason:</p> <ul style="list-style-type: none"> ● 2045 Target: The CAP has a target of 85% below 1990 levels by 2045, consistent with the state target. |
| <p>Carbon neutrality by 2045.</p> | <p>The 2045 CAP is consistent with this target for the following reasons:</p> <ul style="list-style-type: none"> ● 2045 Target: The CAP has a target of 85% below 1990 levels by 2045. The CAP does not have a target of carbon neutrality, but this is not required by the scoping plan and may not be appropriate for all jurisdictions. ● 2045 Aspirational Goal: The 2045 CAP also includes an aspirational goal to achieve carbon neutrality by 2045 to align with the We Are Still In Declaration and the state’s carbon reduction targets and goals. ● Carbon Removal: Action ES1.3 states, “Develop a carbon removal strategy that considers direct air capture and carbon capture and sequestration (CCS).” This program will be developed via the CAP into the future to help the County aim for carbon neutrality. Measures A1, A2, and A3 also call for and promote carbon sequestration to balance remaining direct emissions. ● CAP Checklist: The checklist allows projects to screen out of completing the checklist in full if the project achieves zero GHG emissions compared to the existing on-site development at the project site. |
| <p>GHG reduction targets should typically be estimated for specific years aligned with the State’s long-term climate targets established through existing laws or policy guidance.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reason:</p> <ul style="list-style-type: none"> ● Multiple target years: The CAP’s targets for 2030 and 2045 align or exceed state targets for these years. The CAP also has an interim 2035 target on the trendline from 2018 to 2045. |
| <p>Jurisdictions should consider their respective share of the statewide reductions necessary to achieve the State’s long-term climate targets. Jurisdictions should also evaluate their GHG inventory when establishing targets consistent with the State’s long-term climate targets and should tailor their inventory to ensure the sectors included in the State’s targets align with those included in the local jurisdiction’s inventory and target. Local governments should focus on sources and actions within their control.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reasons:</p> <ul style="list-style-type: none"> ● Inventory and forecast: The 2045 CAP includes a 2015 baseline GHG emissions inventory, a 2018 GHG emissions inventory update, and projections of 2030, 2035, and 2045 emissions. GHG emissions for all of these years include emissions associated with all activities occurring within the boundaries of unincorporated Los Angeles County. ● Excluded sectors: Sectors over which the County has no control were excluded from the inventory, forecast, and target. These include Cap-and-Trade covered entities (like large stationary sources and power plants), airports, ports and marine, military, and other sources. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| <p>A jurisdiction that periodically examines their long-term GHG reduction trajectory is in a better position to determine whether GHG emission levels contemplated in their CAP are sustainable. This type of long-term approach benefits from interim reduction targets rather than a single target.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reasons:</p> <ul style="list-style-type: none"> • Multiple targets: The CAP includes separate targets for 2030, 2035, and 2045 (see above). • Implementation and tracking: Chapter 4 of the CAP includes an implementation and tracking plan, including regular inventory and CAP updates. Appendix E has specific performance goals and tracking metrics for each measure and action. |
| <p>Align local GHG-reducing strategies and actions with the respective State policies that will deliver GHG emission reductions, if successfully implemented and supported at the local level. The CAP target-setting process should account for projected GHG emission reductions from State policies, programs, and strategies implemented over time.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reason:</p> <ul style="list-style-type: none"> • Adjusted BAU forecast: The Adjusted BAU forecast accounts for future growth under BAU conditions but makes adjustments for federal, state, and County legislative regulations that were implemented before the development of the 2045 CAP. These actions include the California Energy Commission’s 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery (CalRecycle) 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (Executive Order S-01-07). |
| <p>Jurisdictions should avoid creating targets that are impossible to meet as a basis to determine significance. A net-zero target that makes it more difficult to achieve statewide goals by prohibiting or complicating projects that are needed to support the State’s climate goals, like infill development or solar arrays, is not consistent with the State’s goals.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reasons:</p> <ul style="list-style-type: none"> • 2045 Target: The CAP has a target of 85% below 1990 levels by 2045, consistent with the state target. • 2045 Aspirational Goal: The 2045 CAP also includes an aspirational goal to achieve carbon neutrality by 2045 to align with the We Are Still In Declaration and the state’s carbon reduction targets and goals. • Infill and affordable housing: The CAP prioritizes infill and affordable housing development in a myriad of ways. For example: <ul style="list-style-type: none"> ○ Action ES3.5 states, “Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings.” ○ Action ES5.1 calls for requirements for new development, but includes “affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability.” ○ Action E1.5 states, “Create a comprehensive fund aggregation program to support energy efficiency, decarbonization and resilience in new and existing affordable housing.” • Carbon Removal: Action ES1.3 states, “Develop a carbon removal strategy that considers direct air capture and carbon capture and sequestration (CCS).” This program will be developed via the CAP into the future to help the County aim for carbon neutrality. Measures A1, A2, and A3 also call for and promote carbon sequestration to balance remaining direct emissions. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| | <ul style="list-style-type: none"> • CAP Checklist: The checklist allows projects to screen out of completing the checklist in full if the project achieves zero GHG emissions compared to the existing on-site development at the project site. |
| <p>Equity and Affordable Housing (2022 Scoping Plan Appendix D, Section 1.1)</p> | |
| <p>Local policies that make it easier for people to afford homes in places with good access to jobs, services, open space, and education, as well as a variety of transportation options that reduce the need to drive, advance equity and reduce GHG emissions.</p> | <p>The 2045 CAP and other County programs and policies are consistent with this recommendation for the following reasons: ^a</p> <ul style="list-style-type: none"> • County Racial Equity Strategic Plan: To address the implementation of the 2045 CAP strategies, measures, and actions in an equitable manner, the County identified applicable guiding principles from the Los Angeles County Draft Racial Equity Strategic Plan to assist with the equitable distribution of benefits and resources across all segments of a community. • Grants Program: Grants will be highly considered in place of the traditional rebate programs for frontline communities. • Feasibility Studies: Feasibility studies initiated by a CAP action will also include additional feasibility analysis for frontline communities to identify necessary additional support. • Housing Element: In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that include but are not limited to the Rezoning Program, Residential Parking Program, Rent Stabilization Ordinance, and Affordable Housing and Sustainable Communities Program. |
| <p><u>Ensuring that vulnerable communities benefit from efforts to reduce GHG emissions</u> is crucial to the State’s climate strategy.</p> | <p>The 2045 CAP and other County programs and policies are consistent with this recommendation for the following reasons: ^a</p> <ul style="list-style-type: none"> • County Racial Equity Strategic Plan: To address the implementation of the 2045 CAP strategies, measures, and actions in an equitable manner, the County identified applicable guiding principles from the Los Angeles County Draft Racial Equity Strategic Plan to assist with the equitable distribution of benefits and resources across all segments of a community. • Grants: Grants will be highly considered in place of the traditional rebate programs for frontline communities. • Monitoring and Reporting Program: A monitoring and reporting mechanism will be developed to track the overall implementation of the CAP and monitor the rate of implementation in frontline communities. • Inclusion of Tribal and Indigenous Communities: Consultations with the Los Angeles City/County Native American Indian Commission and individual tribes will be held to start a dialogue on how climate change is impacting the indigenous population and what the County can do to support equitable implementation of CAP actions within their communities. • T1: Increase Density Near High-Quality Transit Areas: Implement and complete Housing Element Update rezoning programs to achieve the minimum densities; locate a majority of residential and employment centers in unincorporated Los Angeles County are within 1 mile of an HQTA. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| <p>Local government is well-positioned to design housing policies to address climate goals and design climate policies to meet the State’s housing needs. <u>Land use strategies that support more compact development in infill areas, particularly those already displaying efficient resident travel patterns, have the greatest potential to reduce emissions. Infill housing development</u> alleviates pressure to develop on the urban periphery, preserving natural and working lands and areas often at risk of wildfire.</p> | <ul style="list-style-type: none"> ○ T1.1: Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. ○ T1.2: Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. <p>The 2045 CAP and other County programs and policies are consistent with this recommendation for the following reasons: ^a</p> <ul style="list-style-type: none"> ● Housing Element: In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that include but are not limited to the Rezoning Program, Residential Parking Program, Rent Stabilization Ordinance, and Affordable Housing and Sustainable Communities Program. ● T1: Increase Density Near High-Quality Transit Areas: <ul style="list-style-type: none"> ○ T1.1: Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. ○ T1.2: Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. ● T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use: By 2030, achieve a job density of 300 jobs per acre; For communities with an imbalance of jobs/housing (+ 20%), develop community plans to identify and quantify strategies for bringing below 20%. <ul style="list-style-type: none"> ○ T2.1: Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. ● T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: By 2030, double transit service hours from 560,000 to 1.12 million; by 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares 100% of all transit routes; by 2030, ensure that 75% of unincorporated Los Angeles County residents live within one-half mile of shuttle or mobility service <ul style="list-style-type: none"> ○ T4.1: Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. ○ T4.2 through T4.4. ○ T4.6: Offer free transit passes for students, youth, seniors, people with disabilities, and low-income populations. ○ T4.7 through T4.10. ● CAP Checklist: <ul style="list-style-type: none"> ○ If the project has a residential component and 100% of the units, excluding manager’s units, are set aside for lower income households, then the project can screen out of several of the required transportation elements. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| | <ul style="list-style-type: none"> ○ If the project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor and does not replace residential units set aside for lower income households with a smaller number of market-rate residential units, then the project can screen out of several of the required transportation elements. ○ If the project is located within a High Quality Transit Area (HQTA), Specific Plan, or Area Plan, it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Update rezoning. ○ The project must comply with the County's TDM ordinance at the time of project approval. ○ The project must comply with the County's current Transportation Impact Analysis (TIA) Guidelines. |
| <p><u>Accelerating housing production</u> to meet the extraordinary need for more homes can help reduce vehicle miles traveled (VMT) and GHG emissions and advance health and equity objectives when new housing is developed in types and locations that align with these goals, and particularly when accompanied by complementary policies and investments to create sustainable communities and <u>prevent displacement of existing residents</u>.</p> | <p>The 2045 CAP and other County programs and policies are consistent with this recommendation for the following reasons: ^a</p> <ul style="list-style-type: none"> ● Housing Element: In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that include but are not limited to the Rezoning Program, Residential Parking Program, Rent Stabilization Ordinance, and Affordable Housing and Sustainable Communities Program. ● Anti-Displacement: As part of a larger effort to stem displacement of vulnerable populations, the County's General Plan Housing Element includes Program 43, which will assess displacement and gentrification risk through a Displacement Risk Study. The data will be presented through an Anti-Displacement Mapping Tool to ensure that the most current information is available as County departments implement anti-displacement efforts. The Anti-Displacement Mapping Tool will help to inform the implementation of CAP actions in communities that are already vulnerable to displacement or gentrification. Equity strategies may include the utilization of grant programs to prevent passing the costs to tenants or additional public engagement to clear up any misconception of property assessments. ● T1: Increase Density Near High-Quality Transit Areas: <ul style="list-style-type: none"> ○ T1.1: Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. ○ T1.2: Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. ● CAP Checklist: <ul style="list-style-type: none"> ○ If the project has a residential component and 100% of the units, excluding manager's units, are set aside for lower income households, then the project can screen out of several of the required transportation elements. ○ If the project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor and does not replace residential units set aside for lower income households with a smaller number of market-rate residential units, then the project can screen out of several of the required transportation elements. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| <p><u>Fostering transportation-efficient, resource-rich, accessible, and inclusive communities</u> is a key strategy for climate, equity, health, and affordability. <u>Increasing housing opportunities in transportation-efficient locations</u> is a necessary paradigm shift and is part of the State’s GHG emission reduction strategy.</p> | <p>The 2045 CAP and other County programs and policies are consistent with this recommendation for the following reasons: ^a</p> <ul style="list-style-type: none"> • Housing Element: In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that include but are not limited to the Rezoning Program, Residential Parking Program, Rent Stabilization Ordinance, and Affordable Housing and Sustainable Communities Program. • T1: Increase Density Near High-Quality Transit Areas: <ul style="list-style-type: none"> ○ T1.1: Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. ○ T1.2: Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. • T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use: By 2030, achieve a job density of 300 jobs per acre; For communities with an imbalance of jobs/housing (+ 20%), develop community plans to identify and quantify strategies for bringing below 20%. <ul style="list-style-type: none"> ○ T2.1: Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. • T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Increase bikeway miles by 300% by 2035; Implement the County Bicycle Master Plan; Complete updates to the County’s Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years. <ul style="list-style-type: none"> ○ T3.1 through T3.3. • T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: All transit corridors will have micromobility service; Improved services and access for children, elderly, disabled, and users needing accommodations for bicycles or active transportation; by 2030, double transit service hours from 560,000 to 1.12 million; by 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares 100% of all transit routes; by 2030, ensure that 75% of unincorporated Los Angeles County residents live within one-half mile of shuttle or mobility service. <ul style="list-style-type: none"> ○ T4.1: Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. ○ T4.2 through T4.4. ○ T4.6: Offer free transit passes for students, youth, seniors, people with disabilities, and low-income populations. ○ T4.7 through T4.10. • CAP Checklist: <ul style="list-style-type: none"> ○ If the project has a residential component and 100% of the units, excluding manager’s units, are set aside for |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| | <p>lower income households, then the project can screen out of several of the required transportation elements.</p> <ul style="list-style-type: none"> ○ If the project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor and does not replace residential units set aside for lower income households with a smaller number of market-rate residential units, then the project can screen-out of several of the required transportation elements. ○ If the project is located within a High Quality Transit Area (HQTA), Specific Plan, or Area Plan, it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Update rezoning. ○ The project must comply with the County’s TDM ordinance at the time of project approval. ○ The project must comply with the County’s current Transportation Impact Analysis (TIA) Guidelines. |
| <p><u>Policies to facilitate both market rate and subsidized affordable housing production in infill neighborhoods</u> should, over time, stabilize housing costs, minimize displacement, and create new housing opportunities in transportation-efficient locations.</p> | <p>The 2045 CAP and other County programs and policies are consistent with this recommendation for the following reasons: ^a</p> <ul style="list-style-type: none"> ● Housing Element: In 2022, the County updated its Housing Element to reduce regulatory barriers and provide incentives to promote the equitable distribution of sustainable housing development through programs that include but are not limited to the Rezoning Program, Residential Parking Program, Rent Stabilization Ordinance, and Affordable Housing and Sustainable Communities Program. ● Grants Program: Grants will be highly considered in place of the traditional rebate programs for frontline communities. ● T1: Increase Density Near High-Quality Transit Areas: <ul style="list-style-type: none"> ○ T1.1: Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. ○ T1.2: Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. ● CAP Checklist: <ul style="list-style-type: none"> ○ If the project has a residential component and 100% of the units, excluding manager’s units, are set aside for lower income households, then the project can screen out of several of the required transportation elements. ○ If the project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor and does not replace residential units set aside for lower income households with a smaller number of market-rate residential units, then the project can screen out of several of the required transportation elements. ○ If the project is located within a High Quality Transit Area (HQTA), Specific Plan, or Area Plan, it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Update rezoning. |

| 2022 SCOPING PLAN RECOMMENDATION | 2045 CAP CONSISTENCY |
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| CEQA Streamlining (2022 Scoping Plan Appendix D, Section 2) | |
| <p>Once adopted, CEQA-qualified CAPs provide local governments with a valuable tool for 1) coordinated climate planning in their community and 2) streamlining the CEQA GHG analysis for projects consistent with a CEQA-qualified CAP.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reason:</p> <ul style="list-style-type: none"> • CEQA Qualified CAP: the 2045 CAP is a CEQA-qualified CAP (see above). |
| <p>This tiering and streamlining evaluates whether the proposed project would demonstrate consistency with 1) the adopted plans, as well as the growth and land use assumptions that underlie the CEQA-qualified CAP, and 2) all applicable GHG reduction measures identified in the CAP.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reason:</p> <ul style="list-style-type: none"> • Growth consistency: The CAP Checklist requires that projects be consistent with the General Plan including the Land Use Element and the 2021-2029 Housing Element. |
| <p>CAP compliance checklists can be used with a CEQA-qualified CAP for future CEQA streamlining. The CAP compliance checklists are then included as part of the proposed project's CEQA analysis documenting the project's consistency with the CEQA-qualified CAP.</p> | <p>The 2045 CAP is consistent with this recommendation for the following reason:</p> <ul style="list-style-type: none"> • CAP Checklist: Appendix F is the CAP checklist for projects. |
| <p>CARB has identified three priority areas that address the State's largest sources of emissions that local governments have authority or influence over.</p> | <p>CAP measures and actions: the CAP includes all the suggested measures and strategies recommended by CARB. See the <i>GHG Reduction Strategies and Actions</i> section above.</p> |

Abbreviations:

2021–2029 Housing Element = 2021–2029 Revised County of Los Angeles Housing Element; 2022 Scoping Plan = 2022 Scoping Plan for Achieving Carbon Neutrality; 2045 CAP = 2045 Los Angeles County Climate Action Plan; AB = Assembly Bill; BAU = business-as-usual; BIPOC = Black, Indigenous, and People of Color; Board = Board of Supervisors; CalRecycle = California Department of Resources Recycling and Recovery; CAP = climate action plan; CARB = California Air Resources Board; CCS = capture and carbon and sequestration; CEQA = California Environmental Quality Act; City = City of Los Angeles; County = County of Los Angeles government; Countywide = Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; CPA = Clean Power Alliance; DU = dwelling unit; EMFAC = EMISSION FACTORS; EV = electric vehicle; EVCS = electric vehicle charging station; General Plan = Los Angeles County General Plan 2035; HQTAs = high quality transit area; kBtu = one thousand British thermal units; kW = kilowatt; LD = light-duty; MD/HD = medium-duty/heavy-duty; Metro = Los Angeles County Metropolitan Transportation Authority; PV = photovoltaic; SB = Senate Bill; SCE = Southern California Edison; SCS = Sustainable Communities Strategy; TDM = transportation demand management; TIA = Transportation Impact Analysis; unincorporated Los Angeles County = the unincorporated areas of Los Angeles County; VMT = vehicle miles traveled; ZEV = zero-emission vehicle; ZNE = Zero Net Energy

NOTE:

Some of the listed policies and programs go beyond what is identified in the 2045 CAP but are components of the 2045 CAP's implementation plan as discussed in Chapter 4.

Chapter 8: Air Quality Element

I. Introduction

The South Coast Air Basin, which includes the majority of Los Angeles County, continues to have among the worst air quality ratings in the country. Additionally, climate change, which is primarily caused by an increase in greenhouse gas (GHG) emissions, is one of the most pressing environmental issues faced by all levels of government. Air pollution and climate change pose serious threats to the environment, economy, and public health.

The Air Quality Element summarizes air quality issues and outlines the goals and policies in the General Plan that will improve air quality and reduce greenhouse gas emissions. One sub element—the Community Climate Action Plan—supplements the Air Quality Element. This plan establishes actions for reaching the County’s goals to reduce greenhouse gas emissions in the unincorporated areas.

II. Background

Air Pollutants

The air quality in Southern California does not meet state and federal standards. The American Lung Association consistently gives Los Angeles County failing grades in the amount of ozone and particulate pollution in the air. Although smog levels are impacted by seasons and weather patterns, smog is visible in the air on most days.

Los Angeles County is a large basin with the Pacific Ocean to the west, and several mountain ranges with 11,000 foot peaks to the east and south. Frequent sunny days and low rainfall contribute to ozone formation, as well as high levels of fine particles and dust. In addition, Los Angeles County is home to many diverse industries and the largest goods movement hub on the West Coast. In spite of emission controls that are among the most stringent in the country, power generation and petroleum refining continue to be among the largest stationary sources of air pollution in Los Angeles County.

Poor air quality is a measurable environmental hazard that impacts public health, welfare and the economy. The California Air Resources Board (CARB) has identified diesel particulate matter (PM) as representing 70 percent of the known cancer risk from air toxics in California. Diesel PM is primarily emitted from trucks, trains and ships, which puts those who live near ports and distribution centers at greater risk. A 2008 report by the Institute of Economic and Environmental Studies at California State University Fullerton found that California loses about \$28 billion annually due to premature deaths and illnesses linked to ozone and particulates from sources in the South Coast and San Joaquin air basins. Most of those costs, about \$25 billion, are connected to roughly 3,000 smog-related deaths in the State each year. Additional impacts include work and school absences, emergency room visits, asthma attacks and other respiratory illnesses.

Poor air quality in the region is attributed to emissions from human activities and natural sources, as well as geography, local weather and climate. Specific contributors to poor air quality include: natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun; natural processes within the climate system (e.g., changes in ocean circulation); human activities that change the atmosphere's composition (e.g., through the burning of fossil fuels); and human activities that change the land surface (e.g., deforestation, reforestation, urbanization, desertification, etc.).

Federal, state and regional agencies regulate air pollutants and contaminants that harm human health. Regulations can include standard-setting, ambient monitoring, developing permitting programs, enforcement activities, and establishing economic incentives to reduce air pollution. As shown in Figure 8.1, Los Angeles County is divided into air basins, which are areas with similar meteorological and geographic conditions. The majority of Los Angeles County is in the South Coast Air Basin, with the area north of the San Gabriel Mountains located in the Mojave Desert Air Basin.

Figure 8.1: Air Basins Map

Criteria Air Pollutants

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set national ambient air quality standards for six common air pollutants. These pollutants are called criteria air pollutants because the U.S. EPA has developed human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels:

- Ozone (O₃)
- Particulate matter (PM)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO₂)
- Sulfur dioxide (SO₂)
- Lead (Pb)

Of the six identified criteria air pollutants, particle pollution and ground-level ozone have the most widespread health impacts. The levels of ozone, particulate matter, and carbon monoxide in Los Angeles County continually exceed federal and state ambient air quality standards. Table 8.1 is a summary of the primary sources and effects of the federally-identified criteria air pollutants.

Table 8.1: Primary Sources and Effects of Criteria Pollutants

| Pollutants | Source | Los Angeles County Classification | Primary Health Effects |
|---|---|-----------------------------------|--|
| Ozone (O ₃) | Atmospheric reaction of organic gases with nitrogen oxides in sunlight (“smog”) | Extreme Non-Attainment Area | Aggravation of respiratory and cardiovascular diseases; reduced lung function; increased cough and chest discomfort |
| Fine Particulate Matter (PM ₁₀ and PM _{2.5}) | Stationary combustion of fuels; construction activities; industrial processes; atmospheric chemical reactions | Serious Non-Attainment Area | Reduced lung function; aggravation of respiratory and cardio-respiratory diseases; increased mortality rate; reduced lung function growth in children. |
| Carbon Monoxide (CO) | Incomplete combustion of fuels, such as motor vehicle exhaust | Serious Non-Attainment Area | Aggravation of some heart diseases. |

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| Nitrogen Dioxide (NO ₂) | Motor vehicle exhaust; high temperature stationary combustion; atmospheric reactions | *Concentrations have not exceeded federal standards since 1991, but emissions remain a concern because of their contribution to O ₃ and PM | Aggravation of respiratory diseases. |
| Sulfur Dioxide (SO ₂) | Combustion of sulfur containing fossil fuels; smelting of sulfur bearing metal ores; industrial processes | Attainment Area | Aggravation of respiratory diseases (eg., asthma, emphysema); reduced lung function. |
| Lead (Pb) | Contaminated soil | Attainment Area | Behavioral and hearing disabilities in children; nervous system impairment. |

Source: South Coast Air Quality Management District, 2005.

Air Quality Management Plans

The long-term trend of air quality in Southern California shows continuous improvement since the 1970s, as a direct result of a comprehensive, multi-year strategy of reducing air pollution from all sources as outlined in air quality management plans (AQMPs). To ensure continued progress toward clean air, the SCAQMD in conjunction with the CARB, SCAG, and the U.S. EPA, prepared the ~~2012~~ **2022** AQMP that employs the latest science and analytical tools, and incorporates a comprehensive strategy to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act. The AQMP is updated every three years. For more information, please visit <http://aqmd.gov/aqmp> <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>.

Toxic Air Contaminants

Many toxic air contaminants (TACs), such as formaldehyde and methanol, do not have federal or state ambient air quality standards. However, exposure to TACs is associated with elevated risk of cancer, birth defects, genetic damage, and other adverse health effects.

TACs are regulated by technology-based requirements that are enforced at the state and local level. In California, the Air Toxics Program and the Air Toxics “Hot Spots” Information and Assessment Act regulate TACs. In Los Angeles County, operators of certain types of facilities must submit emissions inventories. The Air Toxics Program categorizes each facility as being high, intermediate, and low-priority based on the potency, toxicity, quantity, and volume of its emissions. If the risks are above established levels, facilities are required to notify surrounding populations and to develop and implement a risk reduction plan.

Greenhouse Gases

GHGs in the atmosphere affect the Earth’s heat balance by absorbing infrared radiation. This layer of gases prevents the escape of heat, similar to the function of a greenhouse. According to the U.S. EPA, the principal GHGs that enter the atmosphere because of human activities are carbon dioxide, methane, nitrous oxide, and fluorinated gases.

GHGs contribute to the destruction of the Earth’s naturally-occurring ozone, which provides protection from the damaging effects of solar ultraviolet radiation. The biggest contributors to ozone depletion are chlorofluorocarbons (CFCs), halons, carbon tetrachloride, methyl chloroform, and other halogenated compounds.

Climate Change

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). While climate change is not solely the result of poor air quality, the two have many common causes and effects.

Scientists believe that the Earth is warming faster than at any time in the previous 1,000 years. According to the California Energy Commission, the average global surface temperature has increased by 1.1 degrees Fahrenheit since the 19th century, and the 10 warmest years of the last century have occurred within the last 15 years.

A large GHG contributor is carbon dioxide, and in California Los Angeles County, more than ~~35~~ 52 percent of the fossil fuel emissions of carbon dioxide equivalent gases are related to transportation uses. As Los Angeles County has some of the highest rates of single occupant vehicle use, traffic congestion, and VMTs in the country, it is a significant contributor to climate change in the region.

The impacts of climate change are exacerbated by increased emissions during warm weather. Warmer temperatures cause increased energy consumption through the use of air conditioners, which increases emissions from power plants and vehicles. Climate change causes warming, drying, and increased winds that result in hotter wildfires that are harder to control. These wildfires result in increased levels of fine particulate matter that could also exceed state and federal standards and harm the public.

Legislation

The Global Warming Solutions Act of 2006 (AB 32) manages and reduces GHG emissions in California. AB 32 requires that CARB establish a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), is one of many bills that implement AB 32, and requires CARB to develop regional GHG emission reduction targets for automobile and light trucks. It requires the 18 metropolitan planning organizations in California, such as the Southern California Association of Governments (SCAG), to coordinate land use, transportation and housing strategies, and prepare a Sustainable Communities Strategy (SCS) to reduce the amount of VMTs in their respective regions and demonstrate their ability to meet CARB's targets. SCAG adopted its SCS as part of its ~~2012 RTP~~ the Connect SoCal (2020-2045 RTP/SCS). For more information on the Connect SoCal ~~2012 RTP/SCS~~, please visit SCAG's web site at <http://www.scag.ca.gov>.

In 2016, global leaders signed the Paris Agreement, a plan to limit the global average temperature increase to 1.5 degrees Celsius above pre-industrial levels. In 2016, then-California Governor Jerry Brown signed Senate Bill 32, which established a 2030 target to reduce GHG emissions by 40 percent below 1990 levels. In 2018, Governor Brown issued Executive Order B-55-18, which established a new statewide goal to reach carbon neutrality by 2045 and achieve and maintain net negative emissions thereafter.

In September 2022, Governor Newsom signed AB 1279, which codified Executive Order B-55-18 by requiring that the state achieve net zero GHG emissions no later than 2045 and reduce direct anthropogenic GHG emissions 85 percent below 1990 levels by 2045. In December 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality, which lays out a path to achieve the statewide goals codified in AB 1279.

Los Angeles County Energy and Environmental Program

In 2006, the Board of Supervisors adopted an Energy and Environmental Program (EEP) for the development and enhancement of energy conservation and environmental programs for County departments. These programs contribute to the County's efforts to reduce communitywide GHGs and GHGs from County operations. The EEP consists of the following programs:

Energy and Water Efficiency

The EEP establishes a reduction target of 20 percent by 2015, and implements conservation monitoring practices and water and energy shortage awareness programs for County buildings and departments.

Green Building Construction and Operations

The County's Green Building Program consists of the Green Building, Low Impact Development, and Drought Tolerant Ordinances. For more information on the County's environmental and sustainability programs, please visit <http://green.lacounty.gov>.

Environmental Stewardship

The Environmental Stewardship Program measures and reduces the County's environmental footprint, including the amount of greenhouse gases produced through direct and indirect County operations, and develops climate change-related policies.

Public Outreach and Education

The Public Outreach and Education Program utilizes the County's communication and outreach channels to share utility industry information, facilitate implementation of subsidy and assistance programs, and spread energy conservation practices throughout the region.

Los Angeles County Community Climate Action Plan

The Los Angeles County Community Climate Action Plan (CCAP) provides policy guidance for reducing GHG emissions generated within the unincorporated areas. The CCAP is a roadmap for ensures that the County will be able to reduce its emissions to 1990 levels by 2020 for the 2030, 2035, and 2045 targets and strive for a long-term aspirational goal for carbon neutrality by 2045. The CCAP includes an emissions inventory for the unincorporated areas and an analysis of the reduction needed to achieve County goals. It analyzes specific actions that result in reduced emissions and lays out a plan for their use and implementation. It also provides a mechanism for tracking and evaluating the County's progress in achieving its climate change goals. The CCAP supports sustainable design and energy efficiency, as well as active and multi-modal transportation strategies to reduce VMT.

The purpose objective of the CCAP is to: 1) establish a baseline emissions inventory and reduction needed to meet County goals identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan; 2) identify specific actions that will measurably reduce GHG emissions identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals; 3) implement state and local level measures provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets.; and 4) provide a mechanism for ongoing tracking and updates to the CCAP encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan; and 5) demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide California Environmental Quality Act (CEQA) streamlining for development projects (serve as a "qualified CAP") via the 2045 Climate Action Plan CEQA Streamlining Checklist

(2045 CAP Checklist). For more information, please visit <http://planning.lacounty.gov/ccap> <https://planning.lacounty.gov/long-range-planning/climate-action-plan/>.

III. Issues

1. Coordinating Land Use, Transportation and Air Quality Planning

Where and how land is developed can impact air quality, which impacts public health. People who live near major sources of air pollution are at a greater health risk. Sensitive receptors, or users of residences, schools, daycare centers, parks and playgrounds, or medical facilities, are particularly susceptible to the impacts of air pollution. Furthermore, CARB advises distancing requirements for sources of air pollution, including freeways, distribution centers, ports, rail yards, refineries, chrome platers, dry cleaners that use perchloroethylene, and gasoline dispensing facilities.

Studies indicate that residing near sources of traffic pollution is associated with adverse health effects, such as the exacerbation of asthma, onset of childhood asthma, non-asthma respiratory symptoms, impaired lung function, reduced lung development during childhood, and cardiovascular morbidity and mortality. These associations are diminished with distance from the pollution source. Given the association between traffic pollution and health, many recommend that residences, schools and other sensitive uses be sited at least 500 feet from freeways, in particular. The Health Effects Institute (HEI) indicates that exposure to traffic pollution may occur up to 300 to 500 meters (approximately 984 to 1640 feet). The range reported by HEI reflects the variable influence of background pollution concentrations, meteorological conditions, and seasons. In addition, siting parks and active recreational facilities near freeways may increase public exposure to harmful pollutants, particularly while exercising. Studies show that heavy exercise near sources of traffic pollution may have adverse health effects.

In addition, there is a direct link between transportation activities and air pollution. According to the SCAQMD, mobile sources of pollution, such as cars, trucks, buses, construction equipment, trains, ships and airplanes, account for 60 percent of all smog producing emissions in the region. Additionally, highly congested freeways and highways further contribute to the conditions that produce air pollution. The continued population growth that is projected for Los Angeles County could overwhelm these air quality gains unless careful attention is paid to voluntary and regulatory measures that reduce transportation-related emissions.

Developing land and transportation systems to reduce the need for vehicle trips and provide alternative modes of transportation can improve air quality. In addition, integrating land use plans, transportation plans, and air quality management plans can help minimize exposure to toxic air pollutant emissions from industrial and other stationary sources. The Mobility Element and Land Use Element provide transportation-based policies to reduce VMTs, such as improving the efficiency of the County roadway network; mobility management, such as increased ridesharing and vanpools; and improving the jobs-housing balance. In addition, the preservation of existing natural habitats and vegetation, as discussed in the Conservation and Natural Resources Element, can also reduce and mitigate air pollution impacts. Natural plant communities, especially woodlands and forests, contribute significant ecosystem service benefits that are extremely costly to replicate once they are gone.

2. Responding to Climate Change

Climate change will have a number of adverse impacts on ecosystems and the economy. Various scenarios predict intense flooding or prolonged droughts, higher temperatures that can lead to frequent wildfires, and rising sea levels that will affect low-lying coastal areas. Therefore, it is critical to develop

strategies to reduce greenhouse gas emissions, and also to address the impacts related to agriculture, public health, ecosystems and natural resources, energy, infrastructure, and emergency management. Development of climate change adaptation strategies in particular may be conducted sequentially, starting with the evaluation of threats, vulnerability and risk assessments, identification of mitigation actions, and implementation. The strategies may also investigate short and long-term funding mechanisms.

IV. Goals and Policies

| Goal AQ 1: Protection from exposure to harmful air pollutants. | |
|--|--|
| Topic | Policy |
| Air Pollutants | Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors. |
| | Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials. |
| | Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible. |
| | Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources. |
| | Policy AQ 1.5: Encourage new residential buildings and other sensitive land uses in areas with high levels or localized air pollution be designed to achieve good indoor air quality through landscaping, ventilation systems, or other measures. |
| Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation, and air quality planning. | |
| Topics | Policy |
| Air Quality, Land Use, & Transportation | Policy AQ 2.1: Discourage the siting of sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways. |
| | Policy AQ 2.2: Participate in, and effectively c Coordinate with local, regional, state, and federal agencies the to development and implementation of community and regional air quality plans and programs. |
| | Policy AQ 2.3: Support the conservation of natural resources and vegetation to reduce and mitigate air pollution impacts. |
| | Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses. |
| | Policy AQ 2.5: Encourage land use development and design that integrates GHG emission reduction strategies through increasing residential density and infill development, especially affordable housing and diversity of destinations near High-Quality Transit Areas. |
| | Policy AQ 2.6: Expand infrastructure to accommodate transit and alternative modes of transportation to serve residential, employment, and recreational trips. |
| | Policy AQ 2.7: Explore the feasibility of parking strategies that limit or remove parking minimums to reduce vehicular trips. |
| | Policy AQ 2.8: Encourage and support the development and implementation of Zero-Emission technology and infrastructure in an equitable manner to ensure access to all County residents. |
| | Policy AQ 2.9: Electrify entire County light-duty and bus and shuttle fleet vehicles. |
| | Policy AQ 2.10: Encourage the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment and freight decarbonization technologies, such as charging infrastructure for freight vehicles. |

| Goal AQ 3: Implementation of plans and programs to aAddress the impacts of climate change and <u>reduce greenhouse gas emissions through climate action and mitigation.</u> | |
|---|--|
| Topic | Policy |
| <u>Climate Change Climate Action and Mitigation</u> | Policy AQ 3.1: Facilitate the implementation and maintenance of the LA County Climate Action Plan to ensure that the County reaches its climate <u>change action</u> and greenhouse gas emission reduction goals. |
| | Policy AQ 3.2: Reduce energy consumption in <u>existing buildings and</u> County operations through <u>energy efficiency retrofits</u>. |
| | Policy AQ 3.3: <u>Reduce water consumption in County operations. Encourage carbon sequestration through sustainable agricultural practices and conservation of agricultural and working lands, forest lands, and wildlands.</u> |
| | Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions. |
| | Policy AQ 3.5: <u>Encourage energy conservation in new development and municipal operations. Require the full decarbonization of new development. Encourage the retrofit of existing development to achieve full decarbonization. Phase in the decarbonization of existing and new development.</u> |
| | Policy AQ 3.6: Support <u>local rooftop solar facilities power generation</u> on new and existing buildings and parking lots. |
| | Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas. |
| | Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts. |
| | Policy AQ 3.8: Develop a sunset strategy for all oil and gas operations that prioritizes <u>disproportionately affected communities</u>. |
| | Policy AQ 3.9: <u>Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.</u> |
| | Policy AQ 3.10: Reduce the lifecycle carbon intensity of building materials and phase out the use of high-global warming potential refrigerants. |
| | Policy AQ 3.11: Promote sustainable waste practices through <u>public outreach, educational programs, and mandates</u>. |
| | Policy AQ 3.12: Ensure and promote the availability of organics waste and recyclable <u>materials diversion services for beneficial use, such as composting, energy production, and upcycling</u>. |
| Policy AQ 3.13: Collaborate with environmental organizations, businesses, schools, and the general public to promote the importance of climate action. | |

V. Air Quality Element Implementation Program

| |
|--|
| ● <u>PACE Financing Program</u> |
| ● <u>Climate Change Adaptation Program</u> |
| ● <u>Efficient Goods Movement</u> |

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Boxes]

Air Quality Regulating Agencies

The following are federal, state and local agencies that regulate air quality in Los Angeles County:

U.S. Environmental Protection Agency

The U.S. EPA enforces the Clean Air Act through multiple programs, policies and regulations. The U.S. EPA focuses on pollution prevention and energy efficiency, indoor and outdoor air quality, industrial air pollution, pollution from vehicles and engines, radon, acid rain, stratospheric ozone depletion, climate change, and radiation protection. The U.S. EPA sets emissions standards for mobile sources, such as automobiles, aircraft, certain ships, and locomotives. Information on the programs and activities in U.S. EPA Region IX, which includes California, can be found on the U.S. EPA web site at <http://www.epa.gov/region9>.

California Air Resources Board

The California Air Resources Board is responsible for the implementation of the Clean Air Act, which establishes state ambient air quality standards, and several programs related to emission reduction activities. Per AB 32, CARB is also responsible for establishing a program to track and report GHG emissions, and to regulate, measure, and enforce the required GHG emission reductions. Information on CARB's programs and activities can be found on their web site at <http://www.arb.ca.gov>.

South Coast Air Quality Management District and the Antelope Valley Air Quality Management District

The SCAQMD and AVAQMD are responsible for monitoring air quality as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in Los Angeles County. The SCAQMD jurisdiction is approximately 10,743 square miles and includes Los Angeles County except for the Antelope Valley, which is covered by the AVAQMD. Information on air quality management districts can be found on the AQMD web site, located at <http://www.aqmd.gov>.

Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC)

LARC is a network of leaders from government, the business community, academia, labor, and environmental and community groups dedicated to encouraging greater coordination and cooperation in addressing climate change at the local and regional levels. The purpose of this collaboration is to share information, foster partnerships, and develop systemwide strategies to address climate change and promote a green economy through sustainable communities.

Chapter 16: General Plan Implementation Programs

I. Introduction

The Government Code requires that upon adoption of a general plan, a planning agency shall “investigate and make recommendations to the legislative body regarding reasonable and practical means for implementing the general plan.”

II. Organization

The General Plan programs, outlined below, are organized by General Plan element and are designed to address the overall policy objectives identified in the General Plan. Each program identifies lead and partner agencies; however, they are not exclusive, and new partners can be added, as needed. The programs also include a timeframe and are categorized based on level of priority. The highest priority programs should be initiated within the first two years of the adoption of the General Plan. Programs that are designated as ongoing represent actions that must be addressed on a regular basis for General Plan implementation.

III. Funding

The General Plan programs guide the development of work programs for County departments. They also inform the budget process and will be used to set funding priorities. The schedules and tasks listed in the implementation program are based on adequate funding being secured through a joint effort undertaken by all departments and agencies. If funding is not secured, the implementation steps and/or timeframes may need to be modified. To supplement department budgets, County staff will also work to secure grants, as needed, for program implementation.

| Program No. | Program Description | General Plan Goals and Policies | Lead and Partner Agencies | Timeframe |
|-------------|---|---------------------------------|--|-----------|
| LU-1 | <p>Planning Areas Framework Program</p> <p>The General Plan serves as the foundation for all community-based plans, such as area plans, community plans, and coastal land use plans. Area plans focus on land use and other policy issues that are specific to the Planning Area. The Planning Areas Framework Program shall entail the completion of an area plan for each of the 11 Planning Areas.</p> <p>Area plans will be tailored toward the unique geographic, demographic, and social diversity of each Planning Area; however, at a minimum, area plans shall be developed using the following guidelines:</p> <ul style="list-style-type: none"> • Involve major stakeholders, including but not limited to residents, businesses, property owners, County departments, regional agencies, and adjacent cities. • Explore the role of arts and culture, and consider beautification efforts. • Analyze the transportation network, and assess the transportation and community improvement needs. Utilize the street design considerations outlined in the Mobility Element as a tool for street improvements that meet the needs of all potential users, promote active transportation, and address the unique characteristics of the Planning Area. • Review and consider the identified opportunity areas, as applicable. • Develop a land use policy map that considers the local context, existing neighborhood character, and the General Plan Hazard, Environmental and Resource Constraints Map. • Consider the concurrent development of areawide zoning tools. • Update specific plans and zoning ordinances, as needed, to ensure consistency and plan implementation. <p>At a minimum, each area plan shall consist of the following components: 1) a comprehensive policy document with area-specific elements, as needed, that incorporates community-based plans as chapters; 2) a land use policy map that utilizes the General Plan Land Use Legend; 3) a zoning map that is consistent with the area plan; 4) a capital improvement plan developed in partnership with the Department of Public Works (see Planning Area Capital Improvement Plans Program); and 5) an environmental review document that uses the</p> | Land Use Element: Goal LU 2 | <p>Lead: DRP</p> <p>Partners: DPW, CEO, DPH, CDC, DPR, Arts Commission, Fire</p> | Years 1-2 |

| | | | | |
|-------------|--|--|---|----------------|
| | <p>General Plan Programmatic EIR as a starting point to assess the environmental impacts of the area plan.</p> <p>The creation of new community plans will be reserved for those communities in the unincorporated areas that are identified through the area plan process as having planning needs that go beyond the scope of the area plan. Community plans, as well as coastal land use plans, shall be incorporated as chapters of area plans.</p> | | | |
| ... | | | | |
| AQ-1 | <p>PACE Financing Program</p> <p>Pursuant to AB 811, establish a countywide property assessed clean energy (PACE) financing program to provide municipal financing for energy and water efficiency and renewable energy projects on private property.</p> | <p>Air Quality Element: Policies AQ 3.2, AQ 3.3</p> <p>Public Services and Facilities Element: Policy 6.5</p> <p>Economic Development Element: Policy ED 1.2</p> | Lead: ISD | Years 1-2 |
| AQ-2 | <p>Climate Change Adaptation Program</p> <ul style="list-style-type: none"> • Develop strategies to address the impacts of climate change related but not limited to agriculture, public health, ecosystems and natural resources, energy, infrastructure, and emergency management. • Climate change adaptation strategies may be conducted sequentially, starting with the evaluation of threats, vulnerability and risk assessments, identification of mitigation actions, and implementation. • Investigate short and long term funding mechanisms. • Amend the General Plan accordingly to incorporate proposed climate change adaptation actions. | <p>Air Quality Element: Policy AQ 3.8</p> | Lead: CEO | Years 1-2 |
| <u>AQ-1</u> | <p><u>Efficient Goods Movement</u></p> <ul style="list-style-type: none"> • <u>Coordinate with SCAG to facilitate implementation of a region-wide goods movement strategy.</u> | <p><u>Air Quality Element:</u> <u>Goal AQ 2</u></p> | <p><u>Lead: PW</u></p> <p><u>Partner: DRP</u></p> | <u>Ongoing</u> |

| | | | | |
|------|--|--|--|-----------|
| | <ul style="list-style-type: none"> • <u>Support SCAG and LA Metro on the evaluation of truck routes throughout the County to identify and target areas for improvement.</u> | | | |
| ... | | | | |
| ED-3 | <p>Economic Development Land Use Strategy</p> <ul style="list-style-type: none"> • Develop an economic development land use strategy that does the following: • Ensure that the unincorporated areas is competitive for business establishment and expansion, by identifying and addressing regulatory barriers. • Make the planning and entitlement process for economic development activities timely, accountable, customer-driven, and predictable. • Identify opportunities to relocate current residential uses, where feasible, that are surrounded by industrial uses in Employment Protection Districts. • Consider amendments to Title 22 to add development standards to buffer residential and industrial uses. • In key industrial areas, consider the allowance of flexibility in land uses and permitting requirements as a way to incentivize redevelopment of these areas, and establish clear guidelines for development to ensure compatibility. | <p>Land Use Element: Policy 5.9, 5.10, 6.2</p> <p>Economic Development Element: Policy ED 1.5, 1.6, 2.1, 2.2, 2.3, 2.8</p> | <p>Lead: DRP</p> <p>Partner: CDC, CEO, LAEDC</p> | Years 1-2 |

Chapter 17: Goals and Policies Summary

Land Use Element Goals and Policies

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Air Quality Element Goals and Policies

| Goal AQ 1: Protection from exposure to harmful air pollutants. | |
|---|--|
| Topic | Policy |
| Air Pollutants | Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors. |
| | Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials. |
| | Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible. |
| | Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources. |
| Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. | |
| Topics | Policy |
| Air Quality, Land Use, and Transportation | Policy AQ 2.1: Encourage the application of design and other appropriate measures when siting sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways. |
| | Policy AQ 2.2: <u>Participate in, and effectively coordinate with local, regional, state, and federal agencies the to development and implementation of community and regional air quality plans and programs.</u> |
| | Policy AQ 2.3: Support the conservation of natural resources and vegetation to reduce and mitigate air pollution impacts. |
| | Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses. |
| | <u>Policy AQ 2.5: Encourage land use development and design that integrates GHG emission reduction strategies through increasing residential density and infill development, especially affordable housing and diversity of destinations near High-Quality Transit Areas.</u> |
| | <u>Policy AQ 2.6: Expand infrastructure to accommodate transit and alternative modes of transportation to serve residential, employment, and recreational trips.</u> |
| | <u>Policy AQ 2.7: Explore the feasibility of parking strategies that limit or remove parking minimums to reduce vehicular trips.</u> |

| | |
|--|---|
| | <u>Policy AQ 2.8: Encourage and support the development and implementation of Zero-Emission technology and infrastructure in an equitable manner to ensure access to all County residents.</u> |
| | <u>Policy AQ 2.9: Electrify entire County light-duty and bus and shuttle fleet vehicles.</u> |
| | <u>Policy AQ 2.10: Encourage the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment and freight decarbonization technologies, such as charging infrastructure for freight vehicles.</u> |

Goal AQ 3: ~~Implementation of plans and programs to~~ Address the impacts of climate change and reduce greenhouse gas emissions through climate action and mitigation.

| Topic | Policy |
|---|--|
| Climate Change <u>Climate Action and Mitigation</u> | <u>Policy AQ 3.1: Facilitate the implementation and maintenance of the LA County Climate Action Plan to ensure that the County reaches its climate change action and greenhouse gas emission reduction goals.</u> |
| | <u>Policy AQ 3.2: Reduce energy consumption in existing buildings and County operations through energy efficiency retrofits.</u> |
| | <u>Policy AQ 3.3: Reduce water consumption in County operations. Encourage carbon sequestration through sustainable agricultural practices and conservation of agricultural and working lands, forest lands, and wildlands.</u> |
| | <u>Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions.</u> |
| | <u>Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. Require the full decarbonization of new development. Encourage the retrofit of existing development to achieve full decarbonization. Phase in the decarbonization of existing and new development.</u> |
| | <u>Policy AQ 3.6: Support local rooftop solar facilities power generation on new and existing buildings and parking lots.</u> |
| | <u>Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas.</u> |
| | <u>Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts.</u> |
| | <u>Policy AQ 3.8: Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.</u> |
| | <u>Policy AQ 3.9: Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.</u> |
| | <u>Policy AQ 3.10: Reduce the lifecycle carbon intensity of building materials and phase out the use of high-global warming potential refrigerants.</u> |
| <u>Policy AQ 3.11: Promote sustainable waste practices through public outreach, educational programs, and mandates.</u> | |

| | |
|--|--|
| | <u>Policy AQ 3.12: Ensure and promote the availability of organics waste and recyclable materials diversion services for beneficial use, such as composting, energy production, and upcycling.</u> |
| | <u>Policy AQ 3.13: Collaborate with environmental organizations, businesses, schools, and the general public to promote the importance of climate action.</u> |

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Economic Development Element Goals and Policies

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|---|---|
| Goal ED 6: Collaborative efforts to implement coordinated economic development activities. | |
| Topic | Policy |
| Coordinated Economic Development | Policy ED 6.1: Encourage a collaborative inter-agency and inter-jurisdictional environment to align economic development activities and promote information sharing on economic trends, business cycles, best practices, and resources. |
| | Policy ED 6.2: Analyze emerging trends for policy modification, and maintain and update accurate labor force, market trends, and other important economic data |
| | Policy ED 6.3: Strengthen cooperation with private sector organizations, economic development organizations, and community level business groups. |

2045 CLIMATE ACTION PLAN

Final Program Environmental Impact Report

October 2023

State Clearinghouse #2021120568

Prepared for:

Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, California 90012

Prepared by:

Environmental Science Associates
626 Wilshire Boulevard Suite 1100
Los Angeles, California 90017



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CHAPTER 1

Introduction

1.1 Purpose

This Program Environmental Impact Report (PEIR) has been prepared by the County of Los Angeles (County)¹ in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code, § 21000 et seq.), and the CEQA Guidelines (14 California Code of Regulations, § 15000 et seq.). The County of Los Angeles serves as “Lead Agency” for the preparation of the Environmental Impact Report for the Revised Draft 2045 CAP (Project). (CEQA Guidelines, § 15050.) This Final PEIR evaluates environmental impacts that would occur if the Project was adopted and implemented.

The purpose of an EIR is “to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.” (Pub. Resources Code, § 21002.1(a).) This Final PEIR analyzes the significant environmental effects of the Project, identifies feasible mitigation measures to avoid or reduce these impacts, and presents alternatives to the proposed Project that could avoid or reduce significant impacts. This Final PEIR was prepared to disclose this information to decisionmakers, members of the public, and public agencies, so that decisionmakers can make informed decisions about the Project.

The purpose of this Final PEIR is to: respond to all comments received by the County regarding the environmental information and analysis contained in the Recirculated Draft PEIR during the official comment period, as required by CEQA; and provide in one place all clarifications, corrections, or minor revisions to the text, tables, figures, and appendices of the Recirculated Draft PEIR generated either from responses to comments or independently by the County. The Final PEIR has been prepared in compliance with CEQA Guidelines section 15132. This Final PEIR, dated October 2023, consists of the following documents:

- **Chapter 1, *Introduction***, contains a summary of project refinements since the issuance of the Recirculated Draft PEIR and discussion of topics received on the Revised Draft 2045 CAP that do not raise significant environmental issues related to the Recirculated Draft PEIR (Section 1.2.2);

¹ Please note the use of the following terms in this document: “unincorporated Los Angeles County” refers to the unincorporated areas of Los Angeles County; “Countywide” refers to Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; and “County” refers to County of Los Angeles government.

- **Chapter 2**, *Response to Comments*, provides a list of public comments and responses to written comments received on the Recirculated Draft PEIR; and
- **Chapter 3**, *Revisions to the Recirculated Draft PEIR* identifies text changes to the Recirculated Draft PEIR.

This Final PEIR includes two appendices:

- **Appendix A**, *Public Notices*, contains copies of public notices issued for the Recirculated Draft PEIR.
- **Appendix B**, *Appendix F of the Revised Draft 2025 CAP*, includes a clean version of the CEQA Streamlining Checklist (Checklist) and a version marked to show the revisions that have been made to the Checklist since the March 2023 issuance of the Revised Draft 2025 CAP.

1.2 Environmental Review Process

1.2.1 Notice of Preparation and Public Scoping

The County published and distributed a Notice of Preparation (NOP) on December 23, 2021, which was accompanied by an Initial Study, to advise interested federal, state, regional, and local agencies and the public that a PEIR would be prepared for the Project. The County sent the NOP package to: the Governor’s Office of Planning and Research, State Clearinghouse; potentially affected federal, state, and local agencies; and others included on a distribution list established for this Project. The NOP and Initial Study were also posted in the office of the County Clerk and online from December 29, 2021, through February 1, 2022. The NOP was published in the following 14 different newspapers throughout Los Angeles County on or before January 3, 2022: *Acton/Agua Dulce News*, *Antelope Valley News*, *Gardena Valley News*, *Glendale Independent*, *La Opinión*, *Sentinel*, *Malibu Times*, *Pasadena Star-News*, *San Gabriel Valley News*, *The Acorn*, *The Argonaut*, *The Daily Breeze*, *The Signal*, and *Whittier Daily*.

A public scoping meeting was held virtually via Zoom on January 13, 2022, at 5:00 p.m. to provide information to the public about the Project and the CEQA process, and to solicit input from attendees. The County provided details about the Draft 2045 CAP (including the Project objectives), as well as the CEQA process (including the timeline and schedule for environmental review, CEQA resource areas, the purpose of the scoping meeting, and opportunities for members of the public to engage in the process), and then opened the meeting to receive comments and questions. Information about the location of documents for review, contact information for the receipt of scoping input, and the deadline to provide scoping input was also provided.

The EIR scoping period lasted from January 3, 2022, through and including February 1, 2022. In addition to oral comments made at the public meeting, written input was received from 21 entities. The Recirculated Draft PEIR presents all input received during the scoping period in Appendix A, *Scoping*, and identifies all who provided input during the scoping process in Table 1-1, *Providers of Scoping Letters*, of the Recirculated Draft PEIR. All scoping input received during the scoping period was considered in the preparation of the Draft PEIR.

1.2.2 Draft PEIR Public Review

The County issued a Draft PEIR for the Draft 2045 CAP on May 25, 2022. Upon completion of the Draft PEIR, notice of the public review period was given in accordance with CEQA Guidelines section 15087. After the July 18, 2022 conclusion for the comment period for the Draft PEIR, the County elected to revise the Draft 2045 CAP in response to public and other input received, and to add a 2045 target consistent with new legislation, Assembly Bill (AB) 1279.

1.2.3 Recirculated Draft PEIR and Public Review

The Recirculated Draft PEIR was made available for agency and public review for 45 days. The comment period began on March 30, 2023, and concluded on May 15, 2023. The Recirculated Draft PEIR was provided to the State Clearinghouse for circulation to interested state agencies. Printed copies of the Recirculated Draft PEIR and electronic copies of all appendices and all documents referenced in the Recirculated Draft PEIR were available for public review during normal hours at the following County libraries:

AC Bilbrew Library
150 E El Segundo Blvd
Los Angeles, CA 90061

Acton Agua Dulce Library
33792 Crown Valley Rd
Acton, CA 93510

Charter Oak Library
20540 E Arrow Highway Suite K
Covina, CA 91724

East Los Angeles Library
4837 E 3rd St
Los Angeles, CA 90022

Hacienda Heights Library
16010 La Monde St
Hacienda Heights, CA 91745

La Crescenta Library
2809 Foothill Blvd
La Crescenta, CA 91214

Stevenson Ranch Library
25950 The Old Road
Stevenson Ranch, CA 91381

Topanga Library
122 N Topanga Canyon Blvd
Topanga, CA 90290

An electronic copy of the Recirculated Draft PEIR was available for all-hours access on the County's website: <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>. A printed copy of the Recirculated Draft PEIR was made available for public review by appointment during normal business hours at the Los Angeles County Department of Regional Planning's headquarters office located at 320 W. Temple Street, Los Angeles, CA 90012.

Notifications and updates of the availability of the Recirculated Draft PEIR and information about how to access it were sent directly to responsible, trustee, and local affected agencies and to tribal entities and members, organizations, and individuals by U.S. Post and via the Revised Draft 2045 CAP specific email listserv. Notice of the availability of the Recirculated Draft PEIR also was published in the following 14 newspapers of general circulation: *Acton/Agua Dulce News*, *Antelope Valley News*, *Gardena Valley News*, *Glendale Independent*, *La Opinión*, *Sentinel*,

Malibu Times, Pasadena Star-News, San Gabriel Valley News, The Acorn, The Argonaut, The Daily Breeze, The Signal, and Whittier Daily.

The County conducted all required noticing and scoping for the Project in accordance with CEQA Guidelines section 15083 and conducted the public review for the Recirculated Draft PEIR in compliance with CEQA Guidelines section 15087.

The County received 21 correspondences following issuance of the NOA for the Recirculated Draft PEIR. Some comment letters solely addressed the Revised Draft 2045 CAP, others solely addressed the Recirculated Draft PEIR, others addressed both documents. The Final PEIR identifies all who provided input, regardless of the subject of the letter, in Table 2 1, *Commenting Parties*, of the Final PEIR.

1.2.4 Availability of the Final PEIR and Public Review

An electronic copy of the Final PEIR (including this Response to Comments document) is being provided to all public agencies who commented on the Recirculated Draft PEIR. Notice of the availability of this Final PEIR and details about how to access it are also being provided to others on the distribution list for the Project. An electronic version will be posted on the County's website: <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>.

The Final PEIR is also available for public review during normal hours at the following locations, at least until the County decides whether to certify the PEIR and approve, approve with modifications, or deny the Project:

AC Bilbrew Library
150 E El Segundo Blvd
Los Angeles, CA 90061

Acton Agua Dulce Library
33792 Crown Valley Rd
Acton, CA 93510

Charter Oak Library
20540 E Arrow Highway Suite K
Covina, CA 91724

East Los Angeles Library
4837 E 3rd St
Los Angeles, CA 90022

Hacienda Heights Library
16010 La Monde St
Hacienda Heights, CA 91745

La Crescenta Library
2809 Foothill Blvd
La Crescenta, CA 91214

Stevenson Ranch Library
25950 The Old Road
Stevenson Ranch, CA 91381

Topanga Library
122 N Topanga Canyon Blvd
Topanga, CA 90290

Future notifications regarding scheduled Planning Commission hearings on the Project will be published and distributed in accordance with the law. For general questions and assistance, please contact Thuy Hua, AICP, Supervising Planner, by telephone at (213) 974-6461 or email at climate@planning.lacounty.gov.

1.3 Project Overview

Approval of the Revised Draft 2045 CAP would require an amendment to the *Los Angeles County General Plan 2035* (General Plan) to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), an implementing component of the General Plan’s Air Quality Element. In early 2020, the County released a public discussion draft of the 2045 CAP (Public Discussion Draft). After receiving comments from stakeholders, the County decided to revise and update the Public Discussion Draft. The County issued the Draft 2045 CAP in April 2022 and issued a Revised Draft 2045 CAP in March 2023. The impacts of the Revised Draft 2045 CAP are analyzed in the Recirculated Draft PEIR.

1.3.1 Project Summary

The Project is the County’s plan toward meeting greenhouse gas (GHG) emissions reduction targets for unincorporated Los Angeles County by the years of 2030, 2035, and 2045. It was developed with the goals of implementing the GHG emissions reduction policies of the General Plan Air Quality Element and ensuring that the County contributes its share to statewide GHG emissions reductions.

The Project includes an update to the Air Quality Element to refine goals, policies, and implementation language to set the framework for the Revised Draft 2045 CAP.

With these goals in mind, the objectives of the Revised Draft 2045 CAP are as follows:

- (1) Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
- (2) Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
- (3) Provide a road map for reducing GHG emissions to achieve the County’s GHG emissions reduction targets.
- (4) Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
- (5) Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a “qualified CAP”) via the Checklist.

The Revised Draft 2045 CAP would be implemented in all unincorporated areas of the County, which make up an approximately 1,696,000-acre (approximately 2,650-square-mile) area that is approximately 65 percent of the total land area of Los Angeles County. The unincorporated areas in the northern portion of Los Angeles County include Angeles National Forest, parts of Los Padres National Forest and the Mojave Desert, and the Antelope Valley. In the western portion of the county, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in the southern and eastern portions consist of noncontiguous land areas

including unincorporated areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

The Revised Draft 2045 CAP includes the following:

- A GHG emissions inventory for 2018
- Emissions forecasts for 2030, 2035, and 2045
- GHG emissions targets for 2030, 2035, and 2045
- A suite of GHG emissions reduction strategies, measures, and actions to reduce GHG emissions from major sectors
- A technical modeling appendix to explain the Draft 2045 CAP’s GHG emissions reduction estimates
- A consideration of environmental justice and equity concerns
- Implementation and monitoring measures to ensure successful climate action
- A new CEQA streamlining checklist to allow future projects to streamline GHG emissions analyses pursuant to CEQA, should they so choose.

1.3.2 Project Refinements Since Issuance of the Recirculated Draft PEIR

Since the County’s issuance of the Recirculated Draft PEIR, refinements have been made to the previously published text of Chapter 2, *Project Description*, to address changes to the Revised Draft 2045 CAP and input received on the Recirculated Draft PEIR. Refinements to the Recirculated Draft PEIR include minor corrections to improve writing clarity, grammar, and consistency; clarifications, additions, or deletions resulting from specific responses to comments; and changes to update information in the Recirculated Draft PEIR. For example, refinements have been made to: i) Revised Draft 2045 CAP measures and actions to clarify that earlier references to *electrification* were intended more generally to mean *decarbonization*; ii) Appendix F of the Revised Draft 2045 CAP (CEQA Streamlining Checklist) to clarify the streamlining process; and iii) performance objectives for some measures. All refinements are shown in Chapter 3, *Revisions to the Recirculated Draft PEIR*, Section 3.2.3, of this Final PEIR.

1.3.2.1 Analysis of Project Refinements

The Project refinements identified in Chapter 3, *Revisions to the Recirculated Draft PEIR*, Section 3.2.3, would result in no new significant information. There are no new significant impacts and no substantial increase in the severity of a significant impact than was disclosed in the Recirculated Draft PEIR. The refinement changes result in no change to the conclusions reached in the Recirculated Draft PEIR. Accordingly, the proposed refinements are not considered “significant new information” requiring recirculation under CEQA Guidelines section 15088.5.

1.4 Comments on the Revised Draft 2045 Climate Action Plan

Below are general responses that address eight topics of interest in comments received solely on the Revised Draft 2045 CAP. Not every individual topic raised in comments on the Revised Draft 2045 CAP is addressed below. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, such that no response is required pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County acknowledges receipt, has reviewed all input received on the Revised Draft 2045 CAP, and has made it available as part of the record. For comments that raise significant environmental issues related to the Recirculated Draft PEIR, responses are provided within Chapter 2, Section 2.2, *General Responses*, and Section 2.3, *Individual Responses*.

1.4.1 The Revised Draft 2045 Climate Action Plan

The Revised Draft 2045 CAP is a comprehensive framework for the County to achieve GHG emissions reductions pursuant to the Board of Supervisors' directive to support the goals of the Paris Climate Agreement and local climate pursuits. The Revised Draft 2045 CAP sets new GHG emission reduction targets that are consistent with state goals pursuant to Senate Bill (SB) 32, Assembly Bill (AB) 1279, and the California Air Resource Board's 2022 Scoping Plan. It identifies strategies, measures, and actions to mitigate GHG emissions from community activities and identifies next steps for the County to take that include the development of regulatory ordinances and incentive programs.

The Revised Draft 2045 CAP includes a GHG emissions inventory, projections for future emissions, and a road map for reducing emissions from the transportation, stationary energy, waste, industrial, agricultural, and land use sectors. The Revised Draft 2045 CAP also captures GHG emission reduction estimates from actions or programs already initiated by the County in the last several years. Data provided in the Revised Draft 2045 CAP represents the most complete and accessible data available at the time the analysis was conducted. Climate action planning best practices, modeling protocols, and data sources evolve quickly, and the County would regularly assess technological advances and changes in regulations that relate to the Revised Draft 2045 CAP. The Revised Draft 2045 CAP's full datasets would be updated before preparation of the next CAP to reflect the most complete data at that time.

The Revised Draft 2045 CAP includes quantified (for GHG emission reductions) and actionable steps for discretionary development projects that voluntarily choose to streamline their GHG impact analysis under CEQA. Appendix F of the Revised Draft 2045 CAP lists those actions. The Revised Draft 2045 CAP aligns with CARB's 2022 Scoping Plan, as shown in Appendix H of the Revised Draft 2045 CAP. Several discretionary development projects are highlighted in the 2022 Scoping Plan² and the County anticipates that initiation of similar future projects within the County would help the County meet the Revised Draft 2045 CAP's GHG reduction targets, and

² California Air Resources Board. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Appendix D, "Local Actions." November 16, 2022. Pages 25-26. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in June 2023.

achieve many voluntary actions in the Checklist for projects that choose to pursue streamlining. Discretionary projects that choose not to streamline their GHG impacts analysis must prepare a project-specific impact analysis under CEQA.

The County has considered requests for changes to the Revised Draft 2045 CAP during the public comment period. Accepted suggestions have been incorporated into the document. Some suggestions requested providing a high level of detail for certain programs; however, implementation programs require further development, as the County intends to engage stakeholders to develop specific locational criteria or other specific factors during implementation. Other suggestions included accelerating or extending timeframes for action. Largely, those suggestions were not incorporated because the County would need to conduct further study to assess the feasibility of accelerating such action. However, some of these suggestions were incorporated and the County has accelerated timeframes for certain actions (such as Action ES4.3).

The suite of actions in the Revised Draft 2045 CAP is intended to be viewed as a collective strategy to achieve the performance objectives of the Revised Draft 2045 CAP measures and to meet the Revised Draft 2045 CAP's overall GHG emission reduction targets. No singular action will achieve the GHG emission reduction targets and the aspirational goal of carbon neutrality. Appendix E of the Revised Draft 2045 CAP identifies the prioritization of actions and associated time frames for implementation. Further, implementation would take place over numerous years at an aggressive pace, as described in the Revised Draft 2045 CAP (Appendix E). The Revised Draft 2045 CAP's implementation and monitoring program includes performance indicators for each measure and select actions; these would be used to track progress toward achieving each measure's and action's performance objectives, which the County would monitor on an annual basis. The County would adjust implementing actions, timeframes for implementation, performance objectives, and tracking metrics as appropriate during preparation of the next CAP update.

Adoption of the Revised Draft 2045 CAP would allow the County to proceed forward on a clear and integrated path that demonstrates the consideration of all the GHG emissions contributing sectors—transportation, stationary energy, waste, industrial processes and product use, and agriculture, forestry, and other land uses. The Revised Draft 2045 CAP would make the County more competitive to secure state and federal dollars for local projects, such as infrastructure improvements.

1.4.2 Housing Needs

In 2022, the County adopted the 2021-2029 Housing Element to promote equitable development with a focus on sustainable housing that counters environmental injustice. It sets forth implementation programs that encourage the private sector to not only build but also improve housing to counter the historical patterns of segregation and environmental injustice impacting communities of color. The intersection of sustainability and housing development form the basis of the Housing Element's Strategy 6 (Ensure Sustainability in Housing Production). To meet state, regional, and local sustainability goals, the County must minimize wherever possible the negative impacts of housing production on the environment. The Housing Element encourages

planned housing in areas covered by a County-approved area plan or specific plan that has been analyzed by the County under CEQA and that plans for housing, affordable housing, natural resource protection, open space preservation, adequate water supplies, necessary infrastructure, wildfire protection, energy conservation, and other sustainable development features.

The Housing Element developed the Rezoning Program as one of the first steps to facilitate sustainable housing production. The Rezoning Program excludes 86 percent of the unincorporated areas containing natural, hazard, or resource constraints from County-initiated rezoning to facilitate higher density residential development. These physically hazardous areas include environmentally sensitive areas containing Western Joshua Trees and other endangered, listed, candidate species or species of concern, and/or areas lacking in basic infrastructure, particularly access to water supplies. Additional areas within unincorporated Los Angeles County designated as the Coastal Zone and national recreation areas or national forests were also excluded from the Rezoning Program. The remaining 14 percent of the unincorporated County is able to accommodate the County's state-mandated regional housing needs allocation (RHNA). The County is currently implementing the Rezoning Program through the Area Plan process and is named as Programs 7 (East San Gabriel Valley Area Plan), 8 (Metro Area Plan), 18 (South Bay Area Plan), 19 (West San Gabriel Valley Area Plan), and 20 (Westside Area Plan) in the Housing Element. The Rezoning Program will establish higher housing densities in areas that are the least constrained and possess the necessary infrastructure for increased housing. For other areas within unincorporated Los Angeles County, the County has previously planned for housing through County-approved specific plans and area plans and analyzed the potential environmental impacts of such housing under CEQA. The County continues to encourage housing in these designated areas.

A barrier to housing production is the entitlement process itself, which the County has made more efficient through ordinance amendments, organizational change, technology, and increased effectiveness in case processing. However, compliance with CEQA can result in lengthy delays to housing production and remains a significant barrier to the production of housing development. While CEQA reform is not within the purview of the County, the County has initiated and proposed several procedural modifications to the CEQA review process that streamlines the process.

One area of opportunity to streamline the CEQA process for housing production is to develop a qualified GHG reduction plan pursuant to CEQA Guidelines section 15183.5(b), which allows certain projects meeting specified conditions to rely on the County's cumulative analysis of GHG emissions impacts and mitigations rather than conduct individualized project analyses. As discussed in the Recirculated Draft PEIR, the Revised Draft 2045 CAP would meet the requirements of a qualified GHG emissions reduction plan per CEQA Guidelines section 15183.5(b)(1) (Recirculated Draft PEIR, Chapter 1, pp. 2-9 to 2-12). Housing projects electing to incorporate GHG emission reduction features identified in a CAP are ultimately considered to not have greater impacts than what has already been analyzed. As such, qualifying housing projects can save time and cost associated with conducting a comprehensive GHG analysis. Providing the option to streamline CEQA analysis through the Revised Draft 2045 CAP helps the County meet the Housing Element's goal of sustainable housing production and provides time and cost savings to housing project developers. The County's 2045 CAP is identified as the Housing Element's Program 3.

Addressing housing affordability remains one of the key strategies for facilitating housing development in the County. In combination with the other housing strategies, the Housing Element outlines a suite of housing affordability programs. The Inclusionary Housing Ordinance will require new residential projects to set aside a percentage of units for affordable housing, which may also be satisfied through new off-site construction. A Multifamily Housing Rehabilitation Study will assess the feasibility of providing loans or grants to help multifamily building owners address code violations and make repairs or upgrades, while keeping rents affordable to lower-income tenancies through affordability covenants or County rent subsidies. The Preservation Database will allow the County to pursue proactive strategies to maintain affordability in properties at risk of converting to market-rate rents and will include other County data sources to assess the loss of affordable housing stock. The Displacement Risk Study and accompanying interactive anti-displacement mapping tool offers the County a robust index to assess vulnerability of economic displacement and provides a methodology for understanding where displacement pressures threaten residential stability for vulnerable communities. The Affordable Housing Preservation Ordinance currently requires the replacement of affordable rental units that have been demolished, vacated, or converted from rental to for-sale within specified timeframes. The suite of existing and forthcoming housing affordability programs and studies will help people of all income levels to benefit from sustainable housing development and decarbonized buildings.

1.4.3 Equitable Implementation

Engagement is an important part of equitably implementing the Revised Draft 2045 CAP. One of the Climate Equity Guiding Principles is to authentically engage communities by informing stakeholders that are most impacted and using local knowledge to determine implementation and investments that benefit frontline communities. Authentic community engagement makes progress toward achieving structural and procedural equity in climate action. Although the Revised Draft 2045 CAP's Figure 1-3, *Integrating Equity into 2045 CAP Implementation*, identifies a main "Engage" stage, engagement will happen throughout the stages of planning, design, implementation, monitoring, and performance of the Revised Draft 2045 CAP strategies, measures, and actions.

County lead and partner departments identified in Appendix E of the Revised Draft 2045 CAP will carry out implementation. The Climate Equity Guiding Principles and Equity Approach described in the Revised Draft 2045 CAP structures engagement opportunities that the County would incorporate into the planning process. The first stage of identifying frontline communities and vulnerable populations will ensure that frontline communities and trusted community partners who serve as channels of communication between the County and communities are included early on in the process.

Engagement is woven throughout the different stages shown in the Revised Draft 2045 CAP's Figure 1-3. Each stage requires meeting people where they are and in formats that enable active dialogue and participation. The information gathered from engagement will help the County respond to the needs of the frontline communities by designing implementation pathways that support community needs and include necessary protections. Engagement is also incorporated

after an implementation project is completed so that all parties can collectively reflect on the process and so the County can improve in meeting community needs.

Distributional equity ensures equitable implementation of the Revised Draft 2045 CAP in frontline communities through the fair allocation of resources and benefits that reduce or remove carbon from buildings and lessen climate change burdens. The Equity Approach provides multiple ways to ensure distributional equity is considered through funding opportunities. The County recognizes that the traditional rebate funding structure may not be a viable funding mechanism for communities that are already financially burdened. A grant program that provides upfront funding for direct installation of solar panels, electric heat pump appliances, or electric vehicle (EV) chargers can alleviate financial burdens and fast track environmental benefits from implementation of the Revised Draft 2045 CAP strategies, measures, and actions.

Another facet of equitable implementation is ensuring that Revised Draft 2045 CAP measures and actions will not cause harm to renters in frontline communities through displacement or increased rent as a result of retrofitting housing units with GHG-emissions-reducing features. The 2021-2029 Housing Element includes policies to protect against residential displacement and develop tenant protections.

Appendix G of the Revised Draft 2045 CAP provides a list of potential funding sources for implementation. While this appendix provides a broad listing of funding sources currently available, programs and funding sources for climate action may change substantially from year to year. Appendix G provides information on funding search resources that can be used to research currently available programs, such as the State of California Funding Wizard and the UpLift Resource Finder, which is a searchable database of funding opportunities oriented to benefit disadvantaged communities. The County will use these two resources along with the list in Appendix G to secure funding that will benefit frontline communities.

The Revised Draft 2045 CAP recognizes that prioritizing the implementation of actions in frontline communities would provide timely benefits to communities that traditionally have fewer resources to invest in a carbon-free environment. Table 4-1, *Tracking Metrics for Monitoring Progress of 2045 Climate Action Plan Implementation*, provides a list of tracking metrics for each Revised Draft 2045 CAP strategy. The County will track these metrics to measure implementation progress in frontline communities and compare this progress with the unincorporated Los Angeles County as a whole. This information will be reported to the Board of Supervisors in the General Plan Annual Progress Report and the public-facing progress-tracking dashboard. The General Plan Annual Progress Report allows the County to analyze the data for equitable implementation and make adjustments to implementation strategies as needed.

1.4.4 Monitoring and Reporting

The County will track measure and action implementation status (e.g., initiated, ongoing, completed), to assess the effectiveness of the measures and actions in the Revised Draft 2045 CAP against the performance objectives, and make adjustments to the tracking metrics as needed. The County will monitor each Revised Draft 2045 CAP measure and action using the metrics identified in Appendix E, *Implementation Details* (see Table E-1), subject to data availability.

Tracking the performance objectives for each quantified GHG reduction measure on a periodic basis will inform the County and community over time as to how the Revised Draft 2045 CAP implementation actions are working toward achieving GHG reduction targets and will help the County reprioritize actions in future updates to the Revised Draft 2045 CAP.

The County will report on the implementation progress of each measure in the Revised Draft 2045 CAP as part of the General Plan Annual Progress Report. In the first two years of implementation, the County will identify where further efforts and additional resources may be needed. In this initial phase, the County will identify the data sources needed to report on the effectiveness of implementation. The County will also develop a dashboard as part of the reporting on implementation of the Revised Draft 2045 CAP. This dashboard will be updated on an annual basis and will provide information on the ongoing efforts of the Revised Draft 2045 CAP actions through data and spatial displays. The dashboard will also track equity-based metrics to measure progress of implementation in frontline communities compared to unincorporated Los Angeles County as a whole.

The Revised Draft 2045 CAP recognizes that prioritizing the implementation of Revised Draft 2045 CAP actions in frontline communities will provide timely benefits to communities that traditionally have fewer resources to invest in a carbon-free environment. Table 4-1, *Tracking Metrics for Monitoring Progress of 2045 Climate Action Plan Implementation*, provides a list of tracking metrics for each Revised Draft CAP strategy, which would include tracking the same metrics in frontline communities. This will provide a comparison of progress in frontline communities compared to the unincorporated County as a whole. This information will be reported to the Board of Supervisors in the General Plan Annual Progress Report and public-facing progress tracking dashboard. The General Plan Annual Progress Report will allow the County to analyze the data for equitable implementation and make adjustments as needed.

1.4.5 Transportation

The Revised Draft 2045 CAP proposes goals and actions for transportation emissions reduction, as well as improvements to public transit, bike and pedestrian infrastructure, and development of jobs and housing near high-quality transit areas (HQTAs). Data shows that transportation is responsible for the majority of GHG emissions in unincorporated Los Angeles County (Revised Draft 2045 CAP, Chapter 2, pp. 2-5). This is because land use patterns developed over time—including unincorporated Los Angeles County road and highway networks, streetscapes, and parking infrastructure—have been designed to prioritize and promote the use of cars and trucks.

These patterns have entrenched the status quo for single-occupancy vehicle use and exacerbate inequality and disinvestment in Black, Indigenous, and People of Color (BIPOC) and disadvantaged communities. Vehicle tailpipe emissions of criteria pollutants and toxic air contaminants have resulted in negative health outcomes and pollution burdens for many communities, especially those located near highways and industrial areas.³ The lack of housing

³ California Air Resources Board, 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available at <http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf>. Accessed August 2023.

and high cost of living in unincorporated Los Angeles County mean that increased costs in transportation expenses result in displacement and a regressive system where disadvantaged communities must spend increasingly more on gas and transportation to access jobs and affordable housing.

To address these issues, the Revised Draft 2045 CAP proposes strategies for decarbonizing transportation in ways that provide many co-benefits for unincorporated Los Angeles County residents, employees, and employers. Through the proposed actions, the Revised Draft 2045 CAP aims to provide investment in publicly accessible transit infrastructure, increase access and reliability to zero emission vehicles (ZEVs), and promote density and development of housing near existing transit, all while protecting and increasing affordable housing. To track these efforts, Appendix E, *Implementation Details*, provides program information that will provide the framework for implementing and tracking the County's progress to achieving the proposed actions.

The Revised Draft 2045 CAP Transportation chapter comprises three strategies and nine measures. Strategy 2, *Increase Densities and Diversity of Land Uses Near Transit*, would coordinate land use development that leads to outcomes associated with reduced vehicle miles traveled (VMT), such as increased densities near transit, improved jobs-housing balance, and strategically located land uses that can reduce travel distances for many trip purposes. To achieve increased housing production and reduced vehicle use, Measure T1 proposes increased density near HQTAs, which would increase housing opportunities that are affordable and near transit to reduce VMT. Implementing actions include T1.1, which incentivizes development of residential and community-serving HQTAs while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. Action T1.2 would develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. Measure T2 would work to develop land use plans addressing jobs-housing balance and increase mixed-use development. Implementation measure T2.1 aims to develop community plans that will increase the percentage of residents who could live and work within the same community, which decrease VMT. Performance objectives for Measure T2 include achieving a Countywide job density of 300 jobs per acre by 2030 to align with the 2021-2029 Housing Element Rezone Areas and the County's SB 743 VMT Tool, and for communities with an imbalance of jobs/housing (± 20 percent), the County will develop community plans to identify and quantify strategies for bringing that imbalance below 20 percent.

Strategy 3, *Reduce Single-Occupancy Vehicle Trips*, focuses on development of transportation networks that increase the accessibility, comfort, and convenience of active travel modes to help reduce trips made in single-occupancy vehicles. The measures and actions listed under these two strategies aim to reduce the amount of time spent and miles traveled in vehicles throughout the County. For Strategy 3, the County proposes expanding bicycle and pedestrian networks and would identify specific Countywide infrastructure upgrades that are needed to increase the safety and connectivity of active transportation corridors. These corridors should be planned to provide broad connectivity to local communities. The County acknowledges the availability of federal funding infrastructure upgrades, such as Class II bike lanes, which would support Measures T3.1, T3.2, and T3.3 to direct more supplemental planning and funding toward the city's active transportation infrastructure needs. Measure T4 aims to broaden options for transit, active

transportation, and alternative modes of transportation. This includes prioritizing improvements to infrastructure to make the use of existing systems safer and more user-friendly and increase usership and access to different transit options. Improvements to infrastructure, such as shade structures and first-mile/last-mile options, help to increase ridership and support local transit systems that prioritize electric and zero-emission technologies. Also, a major component of Strategy 3 is Measure T5, which aims to limit and remove parking minimums, reduce VMT for uses located in HQTAs, and transition land to beneficial public uses rather than parking. The County has already begun efforts to develop the Multifamily Residential Parking Ordinance in compliance with Assembly Bill 2097, which would reduce parking minimum standards in specific areas that can accommodate parking reductions.

Strategy 4, *Institutionalize Low-Carbon Transportation*, focuses on expanding the use and access to ZEVs. Measure T6 aims to Increase ZEV market share and reduce gasoline and diesel fuel sales, which will be supported by the forthcoming Zero Emission Vehicle Master Plan and CARB's Advanced Clean Cars II regulation, which will both be key to the implementation and expansion of EV ownership in the County. The County will do its part by implementing Measure T7 to electrify County-owned fleet vehicles. This strategy also aims to reduce emissions from diesel- and gasoline-powered off-road equipment, including construction, landscaping, recreational, and commercial and industrial equipment through Measure T8, accelerating freight decarbonization, and Measure T9, expanding the use of zero-emission technologies for off-road vehicles and equipment. In developing the Revised Draft 2045 CAP, the County understands that state and federal laws will direct and influence future standards for non-ZEV vehicles and sales. The Revised Draft 2045 CAP is not a regulatory document, but is rather a plan-level framework for the County to implement, and sets strategies, measures, and actions to reach emissions reductions targets, which includes ZEV market share. The County will continue to monitor state and federal regulation relating to ZEVs and will ensure that implementation of the Revised Draft 2045 CAP is consistent and in compliance with state and federal law.

1.4.6 Agriculture, Forestry, and Other Land Use

Strategy 9 addresses the Agriculture, Forestry, and Other Land Use (AFOLU) sector in the Revised Draft 2045 CAP. Strategy 9 includes an overarching goal to conserve and restore natural lands to keep carbon in the ground. It includes two quantified measures (Measures A1 and A3), which were calculated for their GHG emissions reduction potential. Measures A1 and A3 are not considered Core Measures since they are not measures with the highest reduction potential; however, they are important contributing measures to achieve carbon neutrality. Measure A1 is a focused, subsector program to preserve, conserve, and restore agricultural lands, working lands, woodlands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County. The performance objective for Measure A1 is a way to track the progress of Measure A1. Ordinances such as the Significant Ecological Areas Ordinance provide the mechanism to set development standards that would require development projects to preserve a certain amount of the natural land. Action A1.1 directs the County to develop an open space conservation and land acquisition strategy that proactively conserves native habitats for carbon sequestration.

Measure A3 captures the County’s current process to develop an Urban Forest Management Plan (UFMP) to plant trees, increase unincorporated Los Angeles County’s tree canopy cover, add green space, and convert impervious surfaces. The three actions under Measure A3 identify specific plan, programs, and tools to implement the measure. The County would implement these actions in a coordinated manner, along with other actions listed in the Revised Draft 2045 CAP to maximize the GHG emissions reductions.

Action A3.1 requires the creation and implementation of an UFMP that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity. The County is currently developing the UFMP and has conducted public engagement with stakeholders and communities to cover topics such as environmental justice, public health, and active transportation. The County has reached out to tribal governments within Los Angeles County to solicit subject matter expertise on indigenous land management practices and cultural connections to the urban forest.

Action A3.2 is an expansion of the County’s Parkway Tree Planting Program in the public right-of-way within unincorporated Los Angeles County. The Department of Public Health is currently developing Community Pedestrian Plans that provide a list of proposed pedestrian projects and cost estimates. Such proposed pedestrian projects include planting street trees.

Action A3.3 requires the County to develop an ordinance requiring that all removed native trees be replaced by an equal or greater number of new trees. Discretionary projects are currently subject to tree replacement requirements when native trees are removed. A future ordinance can expand such requirement to ensure there is not a net decrease in trees that contribute to carbon sequestration.

1.4.7 Notice and Public Review

The County sent the Notice of Availability (NOA) for the Recirculated Draft PEIR via USPS mail to California state agencies, incorporated city governments, and members of the public who requested written notices. It was also emailed to the Project email list to inform those who requested Project updates. The NOA was published in 14 newspapers of general circulation within the County. The NOA was also uploaded to the Project website along with Revised Draft 2045 CAP and Recirculated Draft PEIR documents. Since changes to the Recirculated Draft PEIR were predicated on changes to the Revised Draft 2045 CAP, the Revised Draft 2045 CAP was released prior to the Recirculated Draft PEIR on March 16, 2023, to offer additional review time to read the changes driving the analysis in the Recirculated Draft PEIR. The comment period for the Recirculated Draft PEIR began on March 30, 2023, and ended on May 15, 2023, which met the legal CEQA noticing and comment period requirement of 45 days, and was not extended.

Emails were sent to the Project email list to announce the start of the public review period for both the Revised Draft 2045 CAP and Recirculated Draft PEIR. During those 45 days, the County hosted seven open meeting hours advertised as lunchtime office hours, posted the Revised Draft 2045 CAP on the Project website, distributed via email an informational video on the Project, and held meetings with responsive stakeholder groups to facilitate review and discussion.

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CHAPTER 2

Recirculated Draft PEIR Comments and Responses to Comments

2.1 Comments Received

Under CEQA, the lead agency “shall evaluate comments on environmental issues” received from commenters who have reviewed a draft environmental impact report (EIR), and prepare written responses that “describe the disposition of each significant environmental issue that is raised by commenters.” (Public Resources Code, § 21091(d); CEQA Guidelines, § 15088). Responses to comments on the Recirculated Draft Program EIR (PEIR) comply with the CEQA Guidelines such that the level of detail in responses correspond to the level of detail provided in the comment. (CEQA Guidelines, § 15088(c).)

The County received twenty-one (21) correspondences in response to the Recirculated Draft PEIR Notice of Availability. Some comment letters solely address the Revised Draft 2045 CAP or topics unrelated to the Recirculated Draft PEIR and as such, are not addressed in this Chapter 2. Table 2-1, *Commenting Parties*, provides a comprehensive list of all commenting parties and further identifies correspondence containing comments on significant environmental issues that are addressed in this Chapter 2. All written correspondences timely received and fairly presented are included in the County’s administrative record for this Project and will be considered as part of the decision-making process.

Some comments are similar to others. Rather than repeat a response for numerous similar comments, the County provides a collective, or “general” response to similarly-themed comments in Section 2.2, *General Responses*. Responses to individual comments are provided in Section 2.3, *Individual Responses*. These responses are available in the following subsections:

Section 2.3.1, Responses to Comments from Agencies and Tribes

Section 2.3.2, Responses to Comments from Organizations

Section 2.3.3, Responses to Comments from Individuals

**TABLE 2-1
 COMMENTING PARTIES**

| Comment Letter Number | Name | Date(s) | Response to Comment |
|------------------------------|---|-----------------------|---|
| Agencies and Tribes | | | |
| A1 | California Air Resources Board | 5/15/2023 | Responses are provided in Section 2.3.1, Responses to Comments from Agencies and Tribes. |
| A2 | San Manuel | 4/26/2023 | Responses are provided in Section 2.3.1, Responses to Comments from Agencies and Tribes. |
| A3 | Los Angeles County Sanitation Districts | 5/15/2023 | Responses are provided in Section 2.3.1, Responses to Comments from Agencies and Tribes. |
| Organizations | | | |
| O1 | Abundant Housing LA | 5/15/2023 | This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses general comments received on the Revised Draft 2045 CAP. |
| O2 | Acton Town Council | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O3 | Altadena Town Council | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O4 | Altadena Wild | 5/15/2023 | This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses general comments received on the Revised Draft 2045 CAP. |
| O5a O5b | BizFed | 5/9/2023 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O6 | Building Industry Association | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O7 | Center for Biological Diversity | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O8 | Communities for a Better Environment | 5/16/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |

**TABLE 2-1 (CONTINUED)
COMMENTING PARTIES**

| Comment Letter Number | Name | Date(s) | Response to Comment |
|--------------------------------------|---|----------------|---|
| O9 | Endangered Habitats League | 4/11/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O10 | FivePoint Newhall Land and Farming Company | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O11 (<i>intentionally omitted</i>) | --- | --- | --- |
| O12 | League of Women Voters | 3/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O13 | Santa Clarita Organization for Planning and the Environment | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O14 | Southwest Mountain States Regional Council of Carpenters | 5/12/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O15 | Tejon Ranch Company | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. |
| O16 | The Greenlining Institute | 5/15/2023 | This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses general comments received on the Revised Draft 2045 CAP. |
| Individuals | | | |
| I1 | Chelsea Katan | 4/10/2023 | Responses are provided in Section 2.3.3 Responses to Comments from Individuals. |
| I2 | Emmanuel Alcantar | 5/11/2023 | Responses are provided in Section 2.3.3 Responses to Comments from Individuals. |

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2.2 General Responses

Because several of the comment letters raised similar issues on the Recirculated Draft Program Environmental Impact Report (Recirculated Draft PEIR), a set of consolidated responses are set forth below to comprehensively address common topics.

2.2.1 General Response 1: CEQA Alternatives

This General Response 1 clarifies questions raised about the alternatives evaluated in the Recirculated Draft PEIR. Singular, more focused questions are addressed by Individual Responses in Section 2.3 of this document.

As explained in the Recirculated Draft PEIR, Chapter 4, *Alternatives* (at p. 4-1), CEQA requires a lead agency to analyze a reasonable range of potentially feasible alternatives to a proposed project that could feasibly attain most of the basic objectives of the project while substantially reducing or eliminating significant environmental impacts. (CEQA Guidelines, § 15126.6.) CEQA also requires an EIR to evaluate a “no project” alternative to allow decision-makers to compare impacts of approving a project with the impacts of not approving it. (CEQA Guidelines, § 15126.6(e).) An EIR’s discussion of alternatives is ordinarily sufficient if a reasonable range of options is presented. (See *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 234 Cal.App.4th 214.) The Recirculated Draft PEIR for the Revised Draft 2045 CAP meets these requirements.

EIRs must discuss a reasonable range of alternatives to the project as a whole and are not required to consider alternatives to particular components of a project. (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957.) Also, CEQA does not require EIRs to consider in detail multiple variations of the alternatives. (*Village Laguna of Laguna Beach v. Board of Supervisors* (1982) 134 Cal.App.3d 1022 [an EIR should ‘not become vulnerable because it fails to consider in detail each and every conceivable variation of the alternatives stated.’].)

Screening Criteria

For this proposed Project, the County screened multiple alternatives and thereafter selected alternatives to be discussed in the PEIR consistent with CEQA Guidelines Section 15126.6. See Recirculated Draft PEIR Section 4.2, *Alternatives Development and Screening* (p. 4-1 et seq.). The four factors listed below were considered in screening potential alternatives (Recirculated Draft PEIR Section 4.2, p. 4-2).

1. Whether the alternative would meet most of the basic Project objectives. Recirculated Draft PEIR Section 2.3.2 (p. 2-9) lists the five project objectives of the Revised Draft 2045 CAP as follows: i) Identify detailed programs, actions, and performance goals to achieve the climate action policies of the *Los Angeles County General Plan 2035* (General Plan); ii) identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals; iii) provide a road map for reducing GHG emissions to achieve the County’s GHG emissions reduction targets; iv) encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan; and v) serve as a qualified CAP via the Revised Draft

2045 CAP CEQA Streamlining Checklist (Checklist). A fundamental purpose of an EIR’s discussion of alternatives is to suggest different ways that project objectives could be achieved at less environmental cost. The project purpose is the “touchstone” for the selection of alternatives. (CEQA Guidelines Section 15124(b).) Recirculated Draft PEIR Section 2.3.1 (p. 2-8 et seq.) explains that the purpose of the Revised Draft 2045 CAP is to further the vision and goals of the OurCounty Sustainability Plan and implement the GHG emissions reduction strategies of the General Plan’s Air Quality Element to effectively meet GHG emissions reduction targets for 2030, 2035, and 2045 that are consistent with the state’s targets and legislative actions.

2. Whether the alternative would be potentially feasible, where “feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.
3. Whether the alternative would be able to avoid or substantially lessen any of the potentially significant impacts of the Project.
4. Whether implementation of the alternative is remote or speculative. For this analysis, “remote” means unlikely or having only a slight chance of occurring, and “speculative” means unsupported, theoretical, or based on conjecture or guesswork.
5. Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide California Environmental Quality Act (CEQA) streamlining for development projects (serve as a “qualified CAP”) via the 2045 Climate Action Plan CEQA Streamlining Checklist (2045 CAP Checklist).

If a potential alternative did not meet one or more of the screening criteria, then it failed screening and was not carried forward for more detailed review in the PEIR.

Alternatives Not Carried Forward for Detailed Analysis in the PEIR

The Recirculated Draft PEIR initially considered eleven (11) potential alternatives and carried forward three (3) plus the CEQA-required No Project Alternative for more detailed evaluation. The seven alternatives that initially were considered but ultimately not carried forward for more detailed evaluation are described in Section 4.3, *Alternatives Rejected from Detailed Consideration* (p. 4-3 et seq.). They are: a Carbon Neutrality Target by 2045 Alternative (Section 4.3.1, p. 4-3 et seq.); a More Aggressive Timeline to Carbon Neutrality Alternative (Section 4.3.2, p. 4-4); a Minimize Loss of Carbon Sequestration Caused by Development Alternative (Section 4.3.3, p. 4-5); a Substantially Reduced Vehicle Miles Traveled Alternative (Section 4.3.4, p. 4-5 et seq.); an Aquatic Impact Avoidance Alternative that was developed and considered in response to input received during the scoping period (Section 4.3.5, p. 4-7 et seq.); a Complete Phase-Out of Oil and Gas Operations by 2030 Alternative (Section 4.3.6, p. 4-9 et seq.); and a Limited-Scope CAP Alternative (Section 4.3.7, p. 4-10 et seq.). Section 4.3 explains the rationale for the decision not to carry each of these seven alternatives forward for more detailed review.

Alternatives Analyzed in Detail in the Recirculated Draft PEIR

Three alternatives passed the screening criteria and, together with the CEQA-required No Project Alternative, were carried forward into the Recirculated Draft PEIR for evaluation. The three are described in Section 4.4 (p. 4-11 et seq.). They are: Alternative 1: Carbon Offset Alternative (Section 4.4.2, p. 4-13 et seq.); Alternative 2: Zero Net Energy Buildings Alternative (Section 4.4.3, p. 4-14 et seq.); and Alternative 3: Lower Targets Alternative (Section 4.4.4, p. 4-16 et seq.). The No Project Alternative is described in Section 4.4.1 (p. 4-11).

Recirculated Draft PEIR Section 4.5 provides a comparative impact analysis of Alternatives 1 through 3 and the No Project Alternative on a resource-by-resource basis in Table 4-6, *Summary of Impacts of the Project and Alternatives* (p. 4-23 et seq.). Table 4-6 summarizes the significant environmental impacts of the Project and each Project alternative and provides a fact-based comparison of the alternatives' impacts with the Project's impacts on a criterion-by-criterion basis. Table 4-6 analyzes each impact and provides an overall conclusion for each resource area, stating whether each Project alternative results in impacts less than, the same as, or similar to but less than/greater than the Project's impacts. Where a program-level alternative could result in a significant impact, the Recirculated Draft PEIR identifies one or more mitigation measures to avoid or reduce the severity of the impact. See, for example, Table 4-6 regarding aesthetics (p. 4-23 et seq.), identifying that implementation of Mitigation Measure 3.2 would reduce Impact 3.2-10 to less than significant for Alternatives 1 through 3.

The range of alternatives evaluated in the Recirculated Draft PEIR includes a breadth of policy outcomes, from achieving carbon neutrality faster than 2045 and taking no County-directed action to reduce GHG emissions in the unincorporated areas at all, and explores other approaches to achieve most of the basic Project objectives other than the approach identified by the Project as proposed in the Recirculated Draft PEIR. Recirculated Draft PEIR Section 4.6 (p. 4-20 et seq.) identifies both the No Project Alternative and Alternative 3 as the Environmentally Superior Alternatives.

Alternatives Suggested in Comments on the Recirculated Draft PEIR

Commenters suggested that the Recirculated Draft PEIR should have evaluated the following additional alternatives:

- Alternative for the development of small-scale renewable resource generation (O2-8)
- Alternative for battery storage resources to be distributed throughout urban load pockets to supply local energy needs and for expanding and streamlining battery storage (O2-8, O2-11, O2-24, O2-25, O2-26, O2-28)
- Alternative to replace roadways with cool or green surfaces (O2-42)
- Alternative for distributed energy resources (O7-50)

CEQA does not require an EIR to consider alternatives to a component of a project, but rather recommends that alternatives focus on alternatives to the project as whole. (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957 [an EIR is required to describe

alternatives to the proposed project as a whole, not to the various facets thereof].) Measure ES3, *Increase Renewable Energy Production* (Recirculated Draft PEIR Section 2.6.2.1, p. 2-22 et seq.), which includes Action ES3.6, and Measure ES4, *Increase Energy Resilience* (p. 2-23), are components of the Project rather than the entirety of the Project. Accordingly, the Recirculated Draft PEIR need not evaluate alternatives to specific measures and implementing actions for the Revised Draft 2045 CAP’s renewable energy policies and to achieve its renewable energy targets. For example, the Recirculated Draft PEIR need not have analyzed alternative strategies for expanding and streamlining battery storage, a specific implementing action, in unincorporated areas of the County.

The County agrees that small-scale renewable energy generation and distributed battery storage resources can support community self-sufficiency in terms of meeting electricity needs without relying on the regional electrical grid. However, given the unique mixes of loads, generation sources, and existing infrastructure, no single distributed energy resource solution alone would be (as described in Comment O2-8) “intrinsically resilient and demonstrably reliable.” See, for example, a publication by the Institute of Electrical and Electronics Engineers (IEEE) 2017¹ (“Balance between generation and loads [in a microgrid operating independently from the grid] also has to be continuously maintained throughout the operation of the islanded microgrid. Changing loads, especially large block loading, can have a more dramatic effect on overall stability on the islanded system than when grid connected.”). See also reports suggesting that electrical interconnection, not isolation, is the “way to improve the reliability and resilience of critical infrastructure.”² Despite potential resiliency and reliability challenges of sole-reliance on small-scale renewable energy generation and distributed battery storage resources, the County believes that such resources are an appropriate part of a larger energy solution and encourages microgrid deployment (particularly to support the critical needs of vulnerable communities impacted by grid outages) through programs such as the CPUC’s Microgrid Incentive Program, which provides funding for community, local and tribal government-driven, reliability and resilience microgrid projects.³

Comments suggested that distributed generation and storage facilities cause fewer environmental impacts than utility-scale systems, for example because they avoid development of open desert landscapes (Comment O2-8). However, distributed generation and storage are not without adverse environmental impacts, which are discussed in Recirculated Draft PEIR Section 3.1.3.6 and quantitatively analyzed throughout Chapter 3, *Environmental Impacts and Mitigation Measures* (p. 3.1-1 et seq.). For example, distributed energy systems take up space located closer

¹ IEEE, 2017. Challenges of Microgrid Deployment. February 2017. Available online: <https://smartgrid.ieee.org/bulletins/february-2017/challenges-of-microgrid-deployment#:~:text=Balance%20between%20generation%20and%20loads,system%20than%20when%20grid%20connected>. Accessed August 22, 2023.

² The Conversation, 2021. Texas electricity grid failure shows how microgrids offer hope for a better future. February 23, 2021. Available: <https://theconversation.com/texas-electricity-grid-failure-shows-how-microgrids-offer-hope-for-a-better-future-155708>. Accessed August 22, 2023. (Quoting the Canadian Electricity Association in contrast to the State of Texas’s election to remain electrically isolated in the time leading up to the February 2021 grid failure that resulted in widespread power outages and dozens of deaths: “Every Canadian province along the U.S. border is electrically interconnected with a neighbouring U.S. state or states, with many provinces boasting multiple international connections. The result of the integrated Canada-U.S. electric grid is a flexible, reliable and secure grid on both sides of the border.”).

³ California Public Utilities Commission (CPUC), 2021. Resiliency and Microgrids.

to the end-user and, as a result, could cause adverse land use or aesthetic impacts.⁴ Incidents or accidents during normal operation of a distributed energy system, potentially resulting in a hazardous materials spill or fire, also could cause a significant hazard to the public or the environment due to the proximity of the system to the end user. For example, a 2-megawatt battery storage facility near Phoenix, Arizona, exploded and caught fire in April 2019, injuring nine first responders and highlighting the risks of deploying neighborhood-scale battery storage systems due to flammability and explosive characteristics.⁵ As one media outlet observed, “The explosion revealed that lithium-ion batteries can be dangerous, even in the hands of experienced professionals.”⁶ While opinions may differ about the proper balance of resource impacts (for example, whether to prioritize renewable energy capacity over open landscape views or whether to remove fire risks farther from homes and businesses), science and experience show that any decision to prioritize one type of development to the exclusion of the other would result in environmental trade-offs.

Regarding the replacement of roadways with cool or green surfaces, the County notes that Alternative 1: Carbon Offset Alternative would allow for green pavement projects. According to the US EPA, cool pavements include “a range of established and emerging technologies that communities are exploring as part of their heat island reduction efforts.” For details about heat islands, see Individual Response to Comment O2-17.

Further, each of the four suggested alternatives was not analyzed in detail based on infeasibility. Each of the suggested alternatives is inconsistent with agency goals and policies, and therefore is impractical or undesirable from a policy standpoint. The development of small-scale renewable resource generation, distributed energy resources, distributed battery storage resources, and the replacement of roadways with cool or green surfaces, each as an alternative to the Project, would unduly limit the County’s ability to realize the long-term GHG emission reduction benefits associated with implementation of the Revised Draft 2045 CAP; none of these suggested alternatives would provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet the 2045 carbon neutrality goal established by AB 1279. Each of these suggested alternatives also is infeasible because it would fail to meet most of the basic Project Objectives: as stand-alone alternatives, the development of neither small-scale renewable resource generation, distributed energy resources, distributed battery storage resources, or the replacement of roadways with cool or green surfaces, would identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan (Project Objective 1); identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals (Project Objective 2); provide a road map for reducing GHG emissions to achieve the County’s GHG emissions

⁴ U.S. EPA, 2023a. Distributed Generation of Electricity and its Environmental Impacts. Updated May 15, 2023 Available: <https://www.epa.gov/energy/distributed-generation-electricity-and-its-environmental-impacts>. Accessed August 24, 2023.

⁵ AZ Central, 2020. Cause of APS battery explosion that injured 9 first responders detailed in new report. July 27, 2020. Available: <https://www.azcentral.com/story/money/business/energy/2020/07/27/aps-battery-explosion-surprise-new-report-findings/5523361002/>. Accessed August 24, 2023.

⁶ Greentech Media, 2020. APS Details Cause of Battery Fire and Explosion, Proposes Safety Fixes. July 27, 2020. Available: <https://www.greentechmedia.com/articles/read/aps-battery-fire-explosion-safety-lithium-momicken-fluence>. Accessed August 24, 2023.

reduction targets (Project Objective 3); encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan (Project Objective 4); or demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a “qualified CAP”) via the 2045 CAP Checklist (Project Objective 5).

2.2.2 General Response 2: Relationship between the Revised Draft 2045 CAP and the General Plan

The County received public comments questioning the Revised Draft 2045 CAP’s relationship to the General Plan and how the Revised Draft 2045 CAP will be used by project applicants. Multiple comments request the Revised Draft 2045 CAP not be incorporated into the General Plan, state there is no obligation to approve an aspirational policy CAP or adopt one into the General Plan, and suggest that the Revised Draft 2045 CAP should be solely aspirational in nature. This General Response 2 clarifies questions raised about the relationship between the Revised Draft 2045 CAP and the County’s General Plan. Discussion of the requirements of the Checklist and how the Checklist relates to both the Revised Draft 2045 CAP and the County’s General Plan is included in General Response 3. Singular, more focused comments are addressed by Individual Responses in Section 2.3 of this document.

The General Plan provides the policy framework and long-range vision for growth in the unincorporated County. It establishes goals, policies, and programs to foster healthy, livable, and sustainable communities, and provides a guide for future land use, housing, and economic development. The Revised Draft 2045 CAP is a policy document that would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP.

The Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement, and instead sets strategies, goals, and actions to reach emissions reductions targets, which includes zero emissions vehicles market share. (Recirculated Draft PEIR, p. 2-8.)

The Revised Draft 2045 CAP, once finalized and approved, would require an amendment to the General Plan to replace the existing implementation strategy of the Air Quality Element, known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP). In addition to the Revised Draft 2045 CAP, the proposed project evaluated in the Recirculated Draft PEIR includes proposed revisions to the General Plan’s Air Quality Element, which would also require a General Plan amendment. The revisions to the General Plan’s Air Quality Element are set forth in Table 2-1, Proposed Updates to the Los Angeles County 2035 General Plan Air Quality Element, and Table 2-2, Proposed Updates to the Los Angeles County 2035 General Plan Implementation Program Updates, in Chapter 2, *Project Description*. The Revised Draft 2045 CAP is consistent with these revisions and helps implement them.

The Revised Draft 2045 CAP builds on previous climate action work from the 2020 CCAP, adopted in October 2015 as a subcomponent of the Air Quality Element of the General Plan, and includes new emissions reduction targets aligned with Assembly Bill (AB) 1279 and the 2022 Scoping Plan.

The Revised Draft 2045 CAP lays out the reduction strategies, measures, and actions for County implementation within Chapter 3. The Revised Draft 2045 CAP provides definitions for *strategies* (overall sector-level goals of the Revised Draft 2045 CAP that aim for overarching goals within each emissions sector), *measures* (focused, sub-sector-specific programs and goals that include performance standards that are designed to be quantified for GHG emission reductions), and *actions* (specific policies, programs, or tools that shall be implemented to support long-range planning). (Revised Draft 2045 CAP, p. 1-2.) The Recirculated Draft PEIR is intended to provide CEQA compliance for the County measures and actions as described in the Revised Draft 2045 CAP.

The Revised Draft 2045 CAP also includes a voluntary consistency checklist for applicants who choose to streamline CEQA GHG analyses for their projects. (This checklist was proposed to be mandatory for all discretionary projects in the Revised Draft 2045 CAP but in response to public comments, it has been made voluntary in the proposed Final 2045 CAP.)

Comments, such as O5b-39, have stated that there is no state requirement that the County adopt the Revised Draft 2045 CAP as a part of its General Plan. However, the Revised Draft 2045 CAP is an implementation program of the Air Quality Element of the General Plan. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in their general plans or through adoption of a CAP.

Comments, such as O15-11, have questioned whether the Revised Draft 2045 CAP can be amended without undergoing further CEQA review. Future amendments to the Revised Draft 2045 CAP would represent a change to the County's General Plan implementation program and would be a discretionary action subject to CEQA compliance.

Additionally, comments have raised concerns regarding third parties initiating lawsuits against the County and future project applicants for failing to comply with the General Plan and litigation challenging infrastructure, housing, job creation, and other projects (such as comments O6-15, O6-24, and O15-4). Comments point to examples of cities that have included CAPs in their general plans that have led to litigation. While potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. These comments raising potential legal challenges do not raise significant environmental issues related to the Recirculated

Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines Section 15088(a).

The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan. As such, consistency with the General Plan would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP.

Several comments, such as O2-31 and O6-15, claim that once the Revised Draft 2045 CAP is adopted by the County, all Revised Draft 2045 CAP goals will become “binding” for all future County land use and development decisions. There is a critical difference between Revised Draft 2045 CAP performance goals (as identified in the Revised Draft 2045 CAP strategies, measures, and actions) and the requirements in the Checklist in order for new projects to use CEQA GHG analysis streamlining. The Recirculated Draft PEIR is intended to provide CEQA compliance for the County’s measures and actions as described in the Revised Draft 2045 CAP. As such, the performance goals in the Revised Draft 2045 CAP are *Countywide goals*, not requirements or mandates for individual projects; all project-level requirements in order for projects to use CEQA streamlining are identified in the Checklist itself. For a discussion of what is required of discretionary projects for CEQA streamlining, please refer to General Response 3 below.

In a related vein, other comments (such as O6-15, O15-5, and O15-39), state that any future project that is not consistent with every single relevant Revised Draft 2045 CAP measure would be inconsistent with the General Plan and therefore have a significant and unavoidable impact on land use and GHG emissions pursuant to CEQA, triggering the need for an EIR. Firstly, as explained in General Response 3 below, demonstrating compliance with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project’s GHG impact analysis. The Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis. (See Appendix F, p. F-8 et seq., CEQA Streamlining Checklist Instructions.) As mentioned above, General Plan consistency will be determined by whether a project is consistent with the Air Quality Element goals and policies, not with the Revised Draft 2045 CAP measures that help implement these policies.

A few comments such as O9-9 and O9-10 express concerns about how future proposed General Plan amendments would use the Checklist as well as concerns about why the Revised Draft 2045 CAP includes Measure ES5.3 (Evaluate a program for reducing GHG emissions for new developments that require General Plan amendments). The Revised Draft 2045 CAP has been revised to remove Measure ES5.3 (Revised Draft 2045 CAP, p. 3-25.) All new development projects requiring a General Plan amendment must prepare project-specific GHG impact analyses as required by CEQA. Please see General Response 3 below for additional discussion.

For additional discussion of the Revised Draft 2045 CAP CEQA Streamlining Checklist and what is required of discretionary projects electing to streamline their GHG impacts evaluation pursuant to CEQA, please refer to General Response 3 below.

2.2.3 General Response 3: Revised Draft 2045 CAP CEQA Streamlining Checklist

The County has received multiple comments questioning how the Revised Draft 2045 CAP and the Checklist apply to development projects. Comments have alleged that if a project cannot demonstrate consistency with the Revised Draft 2045 CAP, then the project applicant must prepare a full GHG analysis, even if the project would otherwise qualify for CEQA streamlining or an addendum. Comments have questioned whether project applicants must use the Checklist if they are not streamlining their project GHG analysis under the Revised Draft 2045 CAP.

Several comments allege various issues with the content and requirements set forth in Appendix F of the Revised Draft 2045 CAP, formally called the “2045 Climate Action Plan Consistency Review Checklist” and renamed the “2045 Climate Action Plan CEQA Streamlining Checklist” in the Recirculated Draft PEIR (hereafter referred to as the “Checklist”). These comments fall within four primary categories and are responded to in the four subsections below:

1. Comments (such as O6-21) that confuse *consistency with* the Revised Draft 2045 CAP with *CEQA streamlining* of project-level GHG analysis based on the Revised Draft 2045 CAP Recirculated Draft PEIR. Some comments state that any project that fails to comply with all Revised Draft 2045 CAP strategies, measures, and actions would be inconsistent with the Revised Draft 2045 CAP and have a significant adverse GHG impact (such as O5b-16). (See subsection 2.2.3.1.)
2. Comments that claim that the Checklist’s requirements are overly burdensome and prescriptive for new development projects attempting to streamline their GHG impacts analysis under CEQA (by using the Checklist). For example, some comments, such as O5a-3, claim that all projects must meet a job density value of 300 jobs per acre, and that this requirement is untenable. Other comments, such as O6-32, claim that Checklist requirements would violate constitutional provisions. Some comments (such as O15-8) suggest that the Checklist will be used to stop development via litigation. (See subsection 2.2.3.2.)
3. Comments that claim that many Checklist requirements represent deferral of mitigation, pointing to several requirements that rely on future plans and ordinances. Such comments also express concern that the Revised Draft 2045 CAP and Checklist do not evaluate the feasibility (cost, technological, and otherwise) of the Revised Draft 2045 CAP measures and requirements for new projects (such as Comments O6-12 and O15-60). (See subsection 2.2.3.3.)
4. Comments such as O6-14 and O15-55 express concern that the Checklist does not quantify GHG emission reductions for each CAP measure and action included in the Checklist, or for each CEQA streamlining requirement in the Checklist, and therefore that project applicants do not have adequate basis or guidance for demonstrating GHG reduction equivalency for Alternative Project Emissions Reduction Measures. (See subsection 2.2.3.4.)

This General Response 3 clarifies questions raised multiple times with respect to the requirements of the Checklist and how the Checklist relates to both the Revised Draft 2045 CAP and the County’s General Plan. More discussion of the relationship between the Revised Draft 2045 CAP and the County’s General Plan is included in General Response 2. Singular, more focused questions are addressed by Individual Responses in Section 2.3 of this document.

In some cases, adjustments to the language of the Recirculated Draft PEIR and the Revised Draft 2045 CAP, including the CEQA Streamlining Checklist, are included to clarify and amplify the Recirculated Draft PEIR and Revised Draft 2045 CAP in response to comments received on the Recirculated Draft PEIR. These adjustments do not change the conclusions of the Recirculated Draft PEIR regarding environmental impact analyses or mitigation measures and do not include or require any new mitigation measures; thus, the revisions do not constitute significant new information that would trigger recirculation of the Recirculated Draft PEIR under CEQA Guidelines section 15088.5. Rather, the revisions serve to clarify and amplify the content of the Recirculated Draft PEIR.

Purpose of the Checklist as a CEQA Streamlining Tool

The CEQA Guidelines recognize the important role of climate action plans in the CEQA process (CEQA Guidelines, § 15183.5), which sets forth a basic framework for developing a plan to reduce GHG emissions. (CEQA Guidelines, § 15183.5(b).) Pursuant to CEQA Guidelines sections 15064(h)(3) and 15130(d), a lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances. (CEQA Guidelines, § 15183.5(b).) When a project is consistent with the Revised Draft 2045 CAP, the County may presume that the project’s GHG emissions are less than significant. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project’s compliance with the specified requirements in the Revised Draft 2045 CAP, an EIR must be prepared for the project. (CEQA Guidelines, § 15183.5(b)(2).)

The County has developed the Checklist, Appendix F, as a subcomponent of the Revised Draft 2045 CAP implementation program. For applicants choosing to streamline project-specific GHG CEQA analysis, the Checklist would be used to determine the consistency of future projects with the Revised Draft 2045 CAP. The Checklist provides individual projects with the opportunity to demonstrate that they are reducing GHG emissions. If a project would be consistent with the General Plan and can demonstrate consistency with the Revised Draft 2045 CAP by completing the Checklist, the project would be considered consistent with the Revised Draft 2045 CAP and eligible for CEQA streamlining of its project-level GHG analysis. (Recirculated Draft PEIR, p. 2-40.)

In response to comments received, the County has revised Appendix F to provide that the Checklist will be used *only* for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b)(2). This voluntary use includes future project approvals for previously planned projects.

Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project’s GHG impact analysis. As such, the County has renamed the “2045 Climate Action Plan Consistency Review Checklist” to “2045 Climate Action Plan CEQA Streamlining Checklist” to provide further clarity on the role of the Checklist as a tool exclusively for projects intending to streamline from the Revised Draft 2045 CAP Recirculated Draft PEIR.

In response to comments, the County is now proposing that the Checklist *not* be used as a tool for evaluating a project’s consistency with the County’s General Plan. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

To document the proposed change in use of the Checklist and provide further clarity regarding the role of Checklist, the County has revised sections of the Revised Draft 2045 CAP and Recirculated Draft PEIR in the following ways, as shown in the examples below (these examples do not include all text changes to the Revised Draft 2045 CAP and Recirculated Draft PEIR):

“The project review checklist will be used ~~in one two ways: 1) for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for streamlined project-specific CEQA GHG analysis, or 2) for projects required or electing to prepare project-specific CEQA GHG analyses, to demonstrate that all feasible applicable checklist measures or alternative project emission reduction measures have nevertheless been implemented, either as project features or GHG mitigation measures. Projects that do not implement all feasible applicable checklist measures or alternative project emission reduction measures may have significant GHG impacts because they could conflict with an applicable GHG reduction plan per Guidelines Appendix G Section VII. They may also be inconsistent with the General Plan because the CAP is a component of the Air Quality Element.~~” (Recirculated Draft PEIR, Project Description, p. 2-33.)

“The project review checklist will be used ~~one two ways: (1) for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for a streamlined project-specific CEQA GHG analysis; or (2) for projects required or electing to prepare project-specific CEQA GHG analyses, to demonstrate that all feasible applicable checklist measures or alternative project emissions reduction measures have nevertheless been implemented, either as project features or as GHG mitigation measures. Projects that do not implement all feasible applicable checklist measures or alternative project emissions reduction measures may have significant GHG impacts because they could conflict with an applicable GHG reduction plan per CEQA Guidelines Appendix G, Section VII.~~” (Revised Draft 2045 CAP, Ch. 1, p. 1-5.)

“~~Projects that do not implement all feasible applicable checklist measures or alternative project emissions reduction measures may have significant GHG impacts because they could conflict with an applicable GHG reduction plan per CEQA Guidelines Appendix G Section VII. They may also be inconsistent with the General Plan because the CAP is a component of the Air Quality Element.~~” (Revised Draft 2045 CAP, Ch. 3, p. 3-24.)

Projects that are not consistent elect not to use the 2045 CAP CEQA Streamlining Checklist for CEQA streamlining with the 2045 CAP must prepare a comprehensive project-specific analysis of GHG emissions. The analysis must quantify existing and projected GHG emissions and it is strongly encouraged that the project incorporate all the CEQA measures streamlining requirements in this 2045 CAP CEQA Streamlining

Checklist to the extent feasible, as defined by CEQA² and subject to the County's discretion, although this is not required. Cumulative GHG impacts may be significant for any project that is not consistent with the 2045 CAP per the CEQA Guidelines Appendix G Environmental Checklist.³ The 2045 CAP CEQA Streamlining Checklist may be updated to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or to local, state, or federal law. (Revised Draft 2045 CAP, Appendix F, p. F-3.)

²—CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.”

³—CEQA Guidelines Appendix G Environmental Checklist Section VII. Greenhouse Gas Emissions states that a project would have a significant adverse environmental impact if it would “(b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.” The 2045 CAP represents such an applicable plan adopted to reduce GHG emissions.

Step 3: Demonstrate Consistency with Compliance with the 2045 CAP GHG Emissions Reduction Measures and Actions CEQA Streamlining Requirements. Table F-1 identifies the 2045 CAP's consistency CEQA streamlining requirements for projects. Projects must demonstrate consistency compliance with the 2045 CAP CEQA streamlining requirements listed in Table F-1 or document why the requirements are not applicable or are infeasible. (Revised Draft 2045 CAP, Appendix F, p. F-10.)

As discussed above, a comprehensive project-specific analysis of GHG emissions must be prepared for any project that elects not to use the Checklist for CEQA streamlining by completing Table F-1 and (if applicable) Table F-2. Such an analysis shall quantify existing and projected GHG emissions and evaluate potential impacts pursuant to the CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist). It is encouraged that the project shall incorporate all the measures CEQA streamlining requirements in the 2045 CAP CEQA Streamlining Checklist to the extent feasible, though this is not required. Projects that do not implement all feasible applicable checklist measures or alternative project emissions reduction measures may have significant GHG impacts because they could conflict with an applicable GHG reduction plan per CEQA Guidelines Appendix G, Section VII. (Revised Draft 2045 CAP, Appendix F, p. F-16.)

All future projects that would require a General Plan amendment cannot use the Revised Draft 2045 CAP to streamline its GHG impact analysis under CEQA. Such projects would have to undergo their own project-level CEQA analyses of GHG impacts. The Revised Draft 2045 CAP has been revised to remove Measure ES5.3 (Evaluate a program for reducing GHG emissions for new developments that require General Plan amendments). (Revised Draft 2045 CAP, p. 3-25.) All new development projects requiring a General Plan amendment must prepare their own GHG impact analysis under CEQA.

Checklist Requirements for Streamlining

Certain comments (for example, O5a-3 and O5b-3) claim that the Checklist's requirements are overly burdensome and prescriptive for new development projects attempting to streamline their

GHG impacts analysis under CEQA. These comments claim that complying with the Checklist is either impossible or infeasible.

These comments fail to recognize the difference between the Revised Draft 2045 CAP performance goals (as identified in the Revised Draft 2045 CAP strategies, measures, and actions) and the Checklist’s requirements for new discretionary projects intending to streamline their CEQA GHG impact analysis. First, the performance goals in the Revised Draft 2045 CAP are *Countywide goals*, not requirements or mandates for individual projects. All project-level requirements for CEQA streamlining are identified in the Checklist itself. There are no additional streamlining requirements for new projects that are not included in the Checklist.

Second, as explained in the Checklist instructions (Appendix F, p. F-6 to F-8), the Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis. The Checklist provides a list of “Tier 1” measures, which are required for all discretionary projects in order to use CEQA streamlining for GHG impacts, and “Tier 2” measures, which are strongly encouraged for all discretionary projects. Nothing beyond the Tier 1 measures is required for project applicants to streamline their CEQA GHG impacts analysis. These two levels are defined as follows:

- **Tier 1:** Required for all discretionary projects in order to use CEQA streamlining for GHG impacts.
- **Tier 2:** Encouraged for all discretionary projects. Although these measures are not required, projects are strongly encouraged to implement these.

To streamline a project’s GHG impact evaluation under CEQA by using the Checklist, only Tier 1 items must be included. If a Tier 1 item is not feasible, the project applicant must include an alternative GHG emissions reduction measure as a replacement to achieve the same or greater level of GHG emissions reduction as the item with which the project does not comply. If a Tier 1 item is not applicable to a project, the applicant must provide a description of why the consistency requirement is not applicable to the proposed project.

Tier 2 items are identified as supporting actions but are not deemed essential for the overall success of the Revised Draft 2045 CAP. These items are not required of new discretionary projects to complete the Checklist.

For example, several comments (such as O6-18 and O15-18) claim that all future projects must meet a job density of 300 jobs per acre, that this requirement is impossible for many or most projects, and that projects that do not achieve this standard would have significant and unavoidable GHG impacts, triggering the need for an EIR. A job density of 300 jobs per acre is *not* a requirement of the Checklist or the Revised Draft 2045 CAP for new projects. Revised Draft 2045 CAP Measure T2 (Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use) includes a *Countywide* performance goal of 300 jobs per acre by 2030; this is a goal for the entire County to meet by 2030 and represents an average value for Countywide job density. This is not a mandate for every individual new discretionary project. For projects that wish to streamline their GHG impacts evaluation under CEQA, the Checklist requires nothing in the way

of job density for new projects. Checklist item #12, *TIER 2: Achieve a High Jobs/Housing Balance*, is a voluntary Tier 2 item that encourages projects with nonresidential development to “support the County’s goal to achieve a job density of 300 jobs per acre” (emphasis added). A project that could not meet this metric could still use the Checklist to streamline its GHG impact evaluation under CEQA, as compliance with Tier 2 measures is strongly encouraged rather than mandatory. And, as discussed above, the use of the Checklist is entirely voluntary for project applicants wishing to use CEQA streamlining.

As another example, comments (such as O6-16) claim that all future projects must meet a requirement that no more than 10 percent of a project’s water supply will come from water imported into the County. These comments state that this requirement is technologically and legally infeasible. Contrary to the commenters’ claims, future development projects are not required to ensure that 90 percent of their water demand is met by alternative water sources. 2045 CAP Measure E5 includes a performance goal that 90 percent of *total Countywide* water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is *not* a project-level mandate. For projects that wish to streamline their GHG impacts evaluation under CEQA, the Checklist requires nothing regarding water source types. Checklist item #21, *TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture*, is a voluntary Tier 2 item that encourages projects to implement water reuse strategies on-site through certain design elements such as using reclaimed water for outdoor uses and installing residential graywater systems. A project that could not meet this metric could still use the Checklist to streamline its GHG impact evaluation under CEQA because compliance with Tier 2 measures is strongly encouraged rather than mandatory. And, as discussed above, the use of the Checklist is entirely voluntary for project applicants wishing to use CEQA streamlining.

To document the proposed change in use of the Checklist and provide further clarity regarding Tier 1 and Tier 2 items, the County has revised sections of the Revised Draft 2045 CAP in the following ways:

The 2045 CEQA CAP ~~consistency~~ streamlining requirements are listed as either “Tier 1” or “Tier 2.” These two levels are defined as follows:

Tier 1: *Required for all discretionary projects in order to use CEQA streamlining for GHG impacts ~~demonstrate consistency with the 2045 CAP.~~*

Tier 2: *Encouraged for all discretionary projects ~~to the maximum extent feasible.~~ Although these measures are not required, projects are strongly encouraged to implement ~~as many of these as feasible.~~ In Table F.1 below, these voluntary items are colored with gray shading. (Revised Draft 2045 CAP, Appendix F, p. F-11.)*

Several comments, including O6-29 to O6-32, raise issues relating to constitutional provisions of nexus and proportionality expressed in the Supreme Court cases *Nollan v. California Coastal Comm’n* (1987) 483 U.S. 825, *Dolan v. City of Tigard* (1994) 512 U.S. 374, and *Koontz v. St. Johns River Water Management Dist.* (2013) 270 U.S. 595. Those comments indicated that complying with the Checklist would “constitute unduly burdensome impositions and conditions of approval.” The Revised Draft 2045 CAP is a legislative enactment and does not

implicate the doctrine of “unconstitutional conditions” because the Revised Draft 2045 CAP does not demand the conveyance of protected property interests. The Revised Draft 2045 CAP neither restricts the use of property nor requires future project applicants to dedicate any portion of its property to the public or to pay any money to the public.

The commenters do not explain why the Tier 1 streamlining requirements in the Checklist violate constitutional provisions of nexus and proportionality, or which specific Tier 1 items do so. Regarding what is required of projects and what is encouraged, please see General Response 2 and the discussion above. As noted therein, use of the Checklist has been revised to be only a tool for CEQA streamlining, and demonstrating compliance with the Checklist is not a requirement for all projects seeking approval from the County. The Checklist is based on implementing selected Revised Draft 2045 CAP measures and actions at the project-level, pursuant to CEQA Guidelines sections 15183.5(b), 15064(h)(3), and 15130(d).

Additionally, the commenters misunderstand the Revised Draft 2045 CAP’s measures and what the Checklist requires of projects that pursue the CEQA streamlining route. For example, comment O6-30 claims that if a project cannot achieve net zero GHG emissions on-site, it must mitigate GHG emissions off-site to achieve net zero GHG. This is incorrect. There are no requirements in the Revised Draft 2045 CAP or the Checklist for project-level net zero GHG emissions. As explained in the Checklist, a project that can achieve zero GHG emissions for project operations is exempt from complying with all the Checklist’s streamlining requirements. This is a *screening* option, not a requirement (Revised Draft 2045 CAP, Appendix F, p. F-8 and F-17). Comments such as O6-31 claim that the Checklist’s provisions are “expensive, time-consuming and ultimately risky CEQA processes,” yet provides no specific examples nor any evidence to support this claim for any specific Checklist requirement.

Future Requirements in the Checklist and Their Feasibility

A few comments, such as O6-12 and O6-14, raise issues relating to the Checklist’s relationship with future regulations and ordinances that have not yet been developed along with issues relating to infeasibility and deferral.

The commenters are correct that the Checklist includes several streamlining requirements that point to future regulations and ordinances. For example, streamlining Checklist item #8 requires compliance with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan and streamlining Checklist item #15 requires compliance with all applicable Building Performance Standards. As stated in Checklist Table F.1, although the County has not yet developed either the Zero Emission Vehicle Master Plan or building performance standards, the County will develop the Zero Emission Vehicle Master Plan 2030 pursuant to Implementing Action T6.1 in the 2045 CAP and building performance standards before 2030 pursuant to Implementing Action E1.1 in the Revised Draft 2045 CAP. Projects need not comply with such regulations and ordinances until they have been developed and adopted by the County. Therefore, in these instances, projects using the Checklist must comply only with currently adopted ordinances and requirements at the time of project approval. As such, there is no deferral.

Alternative Project Emissions Reduction Measures and Additional GHG Reductions

Several comments express concern that the Checklist does not provide a quantitative pathway for alternative project emissions reduction measures (Step 4 and Table F.2 of the Checklist). These comments state that because the Revised Draft 2045 CAP does not quantify every streamlining requirement in the Checklist or provide guidance for how to quantify such measures at the project level, project applicants cannot feasibly employ alternative GHG emissions reduction measures to serve as replacements for any Checklist streamlining requirement not feasible to implement.

The County understands these concerns and has added a new subsection in Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, “Guidance for Quantifying GHG Reductions from Alternative Measures” to help project applicants choose this pathway. This section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative project emissions reduction measure must achieve. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail.

In general, this approach includes the following three steps:

1. Prepare a detailed quantified GHG emissions inventory for the project, taking into consideration all GHG-reducing project features and Checklist items included as part of the project (including proposed mitigation measures, project design features, strategies being implemented, and other County requirements).
2. For each Tier 1 Checklist streamlining requirement that the project will not meet, perform a quantified calculation of the additional GHG emission reductions that would have occurred had the project implemented the Tier 1 Checklist streamlining requirement.
3. Develop a quantified strategy for achieving a GHG emissions reduction equivalent to the GHG emissions reduction that would have resulted from complying with the Tier 1 Checklist streamlining requirement.

There are several resources available to project applicants to conduct these calculations. Examples include the California Air Pollution Control Officers Association (CAPCOA) California Emissions Estimator Model (CalEEMod),⁷ the California Air Resources Board’s (CARB’s) Emission FACTor model (EMFAC),⁸ and the CAPCOA *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*.⁹ These emission calculations are standard for CEQA analyses and would align with commonly accepted GHG emissions modeling standards and protocols for CEQA review.

⁷ California Air Pollution Control Officers Association. 2023. *California Emissions Estimator Model*. Version 2022.1.1.14. Available: <https://www.caleemod.com/>. Accessed June 2023.

⁸ California Air Resources Board. 2022. EMFAC2021 Model. Version v1.0.2. Available: <https://arb.ca.gov/emfac/>. Accessed June 2023.

⁹ California Air Pollution Control Officers Association. 2022. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. Available: <https://www.airquality.org/residents/climate-change/ghg-handbook-caleemod>. Accessed June 2023.

2.2.4 General Response 4: GHG Offsets

The County has received multiple comments questioning why the Revised Draft 2045 CAP does not incorporate the use of voluntary GHG offset credits (GHG offsets) as a strategy for achieving the County’s GHG reduction targets, and expressing concern that the Revised Draft 2045 CAP does not create a feasible pathway for new development projects to achieve “net zero” emissions because it forbids the use of GHG offsets credits as an alternative GHG emissions reduction measure Checklist.¹⁰ Comments point to the use of GHG offsets for recent CARB-approved development projects in unincorporated Los Angeles County and allege that the Revised Draft 2045 CAP rejects a similar pathway for future projects to demonstrate carbon neutrality.

Some comments regarding offsets expressed concern about the Revised Draft 2045 CAP’s lack of information regarding the cost, feasibility, schedule, or scale of a future Offsite GHG Reduction Program as proposed by Revised Draft 2045 CAP Action ES5.4. This General Response 4 clarifies questions raised about the use of GHG Offsets in the Revised Draft 2045 CAP and the Checklist. More discussion of the requirements of the Checklist is included in General Response 3. For responses to comments about the Offsite GHG Reduction Program, please see General Response 6. Singular, more focused comments are addressed by Individual Responses in Section 2.3 of this document.

The Use of GHG Offsets as an Alternative GHG Reduction Measure in the Checklist

GHG offsets from CARB-approved registries have been used successfully as project-specific CEQA mitigation and the use of GHG offsets is a viable path for demonstrating a less-than-significant GHG impact under CEQA. CARB’s 2022 Scoping Plan cites sample projects that have developed mitigation programs to achieve net-zero GHG emissions for large and complex residential development projects through their combination of on-site measures and the purchase and retirement of voluntary GHG offset credits from CARB-approved registries.¹¹

The Revised Draft 2045 CAP does not preclude a project from using GHG offsets to demonstrate net zero emissions (or carbon neutrality) or to attain any other CEQA significance threshold. In other words, a project can undergo its own CEQA review of GHG impacts and determine such impacts would be less than significant based on substantial evidence and valid CEQA mitigation, which (as previous projects have demonstrated) may include the use of voluntary GHG offset credits. The Revised Draft 2045 CAP does not prohibit this approach. See Revised Draft 2045 CAP Appendix F, page F-13 for more discussion.

However, for projects intending to use the Revised Draft 2045 CAP CEQA Streamlining Checklist to streamline CEQA review of their GHG impacts, the use of GHG offsets is not an option. The purpose of the Checklist is to document the Revised Draft 2045 CAP measures that are applicable to a proposed project and how the project is consistent with the Revised Draft 2045

¹⁰ The terms “GHG offset” and “carbon offset” are often used interchangeably.

¹¹ California Air Resources Board. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Appendix D, “Local Actions.” November 16, 2022. Pages 25-26. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in June 2023.

CAP CEQA streamlining requirements. The Revised Draft 2045 CAP itself does not include GHG offsets as a quantified measure for achieving the County's GHG reduction targets (see Appendix B, Emissions Forecasting and Reduction Methods). Instead, the Revised Draft 2045 CAP requires actual and direct GHG reductions to occur within the County itself. The County may in the future develop a GHG offsets/credits program in conjunction with the Revised Draft 2045 CAP and an updated Checklist.

The Revised Draft 2045 CAP's GHG reduction targets are as follows (see Revised Draft 2045 CAP page 2-10):

- By 2030, reduce GHG emissions by 40 percent below 2015 levels in unincorporated Los Angeles County.
- By 2035, reduce GHG emissions by 50 percent below 2015 levels in unincorporated Los Angeles County.
- By 2045, reduce GHG emissions by 83 percent below 2015 levels in unincorporated Los Angeles County.

As defined, these targets represent *direct emission reduction targets within the boundaries of unincorporated Los Angeles County*. The specification that the reductions occur within the County aligns the County's targets with the statewide targets established by Senate Bill (SB) 32 for 2030 and AB 1279 for 2045. As such, the use of GHG offsets occurring outside of County boundaries would not contribute toward the Revised Draft 2045 CAP's reduction targets.

Chapter 2 (p. 2-10) of the Revised Draft 2045 CAP states that the County has a long-term aspirational goal of carbon neutrality by 2045 and acknowledges that implementation of the Revised Draft 2045 CAP will not be enough to achieve that goal. As explained in Chapter 3, GHG offsets may be needed for the County to achieve its carbon neutrality goal. Further, CARB acknowledges in the 2022 Scoping Plan that "there is no path to carbon neutrality without carbon removal and sequestration" (p. 84). It is important to emphasize that the Revised Draft 2045 CAP includes measures for achieving GHG emissions reductions that are consistent with the state's direct emissions reduction targets and guidance represented by AB 1279 and CARB's 2022 Scoping Plan, but the Revised Draft 2045 CAP does not demonstrate how carbon neutrality would be achieved, which would require the additional reduction of approximately 850,000 metric tons of carbon dioxide equivalent (MTCO_{2e}) Countywide by 2045. As stated on page 3-12 of the Revised Draft 2045 CAP, "[i]f the residual emissions, shown in Figure 3-1, cannot be eliminated through new regulations or technologies, the County will consider future implementation of carbon removal strategies (such as carbon capture and sequestration and direct air capture), along with future implementation of a carbon offsets/credits program, following completion of a feasibility study, to achieve carbon neutrality by 2045."

Several comments, such as O6-26 and O15-32, state that the Revised Draft 2045 CAP should allow the use of GHG offsets for new development projects, as a component of the Checklist, because that would be consistent with the 2022 Scoping Plan, which supports the use of GHG offset credits for achieving net zero GHG emissions or mitigating project emissions to less-than-significant levels, provided that such GHG offset credits meet CEQA's requirements for mitigation

and provided that the project has adopted all feasible on-site and local GHG mitigation options. In the 2022 Scoping Plan, Appendix D, CARB says, “[i]f a project needs further GHG reductions after adoption of all feasible local, off-site mitigation options, applicants should next consider non-local, off-site mitigation” and “[i]f implementation of all feasible on-site GHG reduction measures and all feasible off-site GHG reduction measures are insufficient to reduce a project’s impact to a less-than-significant level, then the lead agency or project applicant should consider purchasing and retiring carbon offset credits.”¹²

As discussed above, the Revised Draft 2045 CAP does not prohibit projects from using GHG offset credits to mitigate their GHG impacts pursuant to CEQA’s requirements and CARB’s recommendations. This approach may be used by any project applicant who opts to conduct a project-level GHG impact analysis pursuant to CEQA. However, if a project applicant wants to streamline environmental review of their project’s GHG impacts using the Revised Draft 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b), the project applicant must use the Checklist, and the Checklist does not permit the use of voluntary GHG offset credits. As explained above, this is because the use of voluntary GHG offset credits would not contribute toward the Revised Draft 2045 CAP’s GHG emission reduction targets, which apply to direct, in-county GHG emissions.

Other comments, such as O10-3, request that the County “grandfather” development projects that have already demonstrated through the CEQA process that they can achieve net-zero GHG emissions via programs approved by CARB that include voluntary GHG offset credits, and that such projects be exempt from using the Checklist. No project that has already undergone CEQA review is obligated to use the Checklist. Similarly, future phases of projects that have already demonstrated achievement of net-zero GHG emissions via offsets but require further CEQA review are not obligated to use the Checklist. As discussed above, projects are still permitted to prepare their own project-level CEQA analysis of GHG impacts independent of the Checklist; such projects may use voluntary GHG offset credits to mitigate GHG impacts if warranted. The Checklist is now only a tool for streamlining GHG impacts analyses. It is not a requirement.

Measure ES5 in the Revised Draft 2045 CAP, *Establish GHG Requirements for New Development*, calls for the County to assess the feasibility of developing a GHG offsets/credits program that would help enable the County to achieve its 2045 carbon neutrality goal if the strategies and measures in the Revised Draft 2045 CAP prove to be insufficient in attaining that goal. As described on page 4-12, for any future GHG offsets/credits program developed by the County, the County would prioritize implementation of offsets generated within or close to Los Angeles County, which is consistent with CARB guidance in the 2022 Scoping Plan.

Recirculated Draft PEIR Carbon Offset Alternative

The Recirculated Draft PEIR for the Revised Draft 2045 CAP includes an analysis of Alternative 1: Carbon Offset Alternative (see Recirculated Draft PEIR, Chapter 4, *Alternatives*). As explained in the Recirculated Draft PEIR, under Alternative 1, in addition to implementing the measures

¹² California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in June 2023.

and actions called for by the Revised Draft 2045 CAP, the County would reduce GHG emissions by purchasing carbon offsets. To achieve the greatest environmental co-benefits to the County, priority would be given, from highest to lowest, to offsets purchased from local projects (within Los Angeles County), regional projects (from within Southern California), projects within California, projects outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and projects elsewhere in the United States.

In addition, as discussed in the Revised Draft 2045 CAP, Measure ES5 calls for assessing the feasibility of developing a GHG offsets/credits program that would help enable the County to achieve its long-term aspirational goal of carbon neutrality by 2045, in the event that the strategies and measures in the 2045 CAP are insufficient to attain the County's carbon neutrality goal (Revised Draft 2045 CAP, p. 4-12). As such, the County may consider using carbon offsets in future updates of the 2045 CAP to achieve the County's long-term GHG reduction targets.

Table 4-6, *Summary of Impacts of the Project and Alternatives* (Recirculated Draft PEIR pp. 4-23 to 4-48), summarizes the significant environmental impacts of each Project alternative, including Alternative 1, and provides a fact-based comparison of each alternative's impacts with the Project's impacts.

2.2.5 General Response 5: Quantification in the Revised Draft 2045 CAP and Relationship between the Revised Draft 2045 CAP Measures and CEQA Mitigation

The County has received several comments regarding the quantification of the GHG reduction measures identified within the Revised Draft 2045 CAP. Commenters question the number of measures that have been quantified, the basis for their quantification, and whether they have been analyzed within the Recirculated Draft PEIR. Commenters generally fault the Revised Draft 2045 CAP and Recirculated Draft PEIR for not quantifying more measures for GHG reductions, and state that this is a critical failing of both the Revised Draft 2045 CAP and the Recirculated Draft PEIR. Commenters also express concern with the technical underpinnings of the Revised Draft 2045 CAP.

General Response 5 clarifies the requirements of CEQA Guidelines Section 15183.5(b) for a CAP with regard to quantification, thereby allowing future projects to streamline their GHG impacts evaluation pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b)(2). General Response 5 also explains the relationship between GHG emissions reduction measures in the Revised Draft 2045 CAP and CEQA mitigation measures. Further, it addresses how the quantitative analysis within the Revised Draft 2045 CAP is substantiated. Comment concerns are addressed in the following two subsections: Qualified Revised Draft 2045 CAP Reduction Measures Compared to CEQA Mitigation Measures (2.2.5.1) and Quantitative Basis for the Revised Draft 2045 CAP (2.2.5.2). Singular, more focused questions are addressed by Individual Responses in Section 2.3 of this document.

Several of the comments that questioned adequate quantification of the Revised Draft 2045 CAP also expressed concern that future project applicants using the Checklist to streamline CEQA

review of the projects' GHG impacts will be unable to provide substantial evidence that alternative measures would achieve reductions equal to or greater than those of the Revised Draft 2045 CAP requirement that they replace. The County understands these concerns and has addressed them, as discussed in General Response 3.

Qualified Revised Draft 2045 CAP Reduction Measures Compared to CEQA Mitigation Measure Requirements

Certain comments (e.g., O6-13 and O15-56) raise concerns that GHG emission reductions were not estimated for all the implementing actions identified in the Revised Draft 2045 CAP. Some comments claim that the Revised Draft 2045 CAP does not adequately analyze GHG reductions and allege that the County inappropriately takes GHG emissions reduction credit for programs that have not yet been implemented, quantitatively analyzed, or evaluated under CEQA. These comments do not accurately reflect the CEQA process and requirements related to plans for the reduction of GHG emissions pursuant to CEQA Guidelines section 15183.5(b).

Per CEQA Guidelines, a GHG reduction plan should “establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable” (CEQA Guidelines, § 15183.5(b)(1)(B)) and “identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area” (CEQA Guidelines, § 15183.5(b)(1)(C)). These criteria are met through the quantitative modeling of eighteen (18) quantified measures, which, cumulatively, would allow the County to meet the GHG reduction targets identified in the Revised Draft 2045 CAP. The Revised Draft 2045 CAP and Recirculated Draft PEIR demonstrate, with substantial evidence, that the Revised Draft 2045 CAP meets the requirements of CEQA Guidelines section 15183.5(b), thereby allowing future projects to streamline their GHG impacts evaluation pursuant to CEQA Guidelines sections 15183.5(b)(2), 15064(h)(3) and 15064.4 (Revised Draft 2045 CAP pp. 1-4 to 1-5; Recirculated Draft PEIR pp. 2-9 to 2-12 and pp. 2-17 to 2-18.).

CEQA does not obligate lead agencies to quantify every single measure and action within a CAP to allow for future streamlining. CEQA requires that CAPs identify only measures that can achieve the CAP's targets and that CAPs should “specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.” (CEQA Guidelines, § 15183.5(b)(1)(D).) The Revised Draft 2045 CAP does this by quantifying GHG emission reductions associated with eighteen (18) different measures and by including project-specific requirements in the Checklist. The Revised Draft 2045 CAP includes a preponderance of mandatory (versus voluntary) measures and actions, measures that address the largest GHG emissions sources (such as building energy use and transportation), a focus on five core measures that are likely to reduce large amounts of emissions, transparency in methods of quantification (see Appendix B of the Revised Draft 2045 CAP), and no reliance on voluntary carbon offsets (Recirculated Draft PEIR pp. 2-11).

Further, there are technical and practical limitations that make reliably quantifying every single measure and action infeasible. Data availability, modeling methods, and risk of double counting emission reductions limit the number of reduction measures that can be quantitatively analyzed.

Some comments, such as O5a-6 and O5b-15, state that the Revised Draft 2045 CAP does not estimate the costs and sources of funding for most of the GHG reduction measures. In Chapter 3 of the Revised Draft 2045 CAP, the County has estimated up-front capital costs for every single measure and action by using “\$” symbols that range from “\$: Less than 500,000 U.S. Dollars” to “\$\$\$\$: More than 150 Million USD” (Revised Draft 2045 CAP p. 3-13). This is also included Revised Draft 2045 CAP Appendix E for every single measure and action in the column titled “COST.” Also in Chapter 3 of the Revised Draft 2045 CAP, the County has included potential funding sources for all quantified core measures in Table 3-3 (Revised Draft 2045 CAP pp. 3-6 to 3-9). Further, Appendix G of the Revised Draft 2045 CAP provides a list of potential funding sources for implementing the Revised Draft 2045 CAP’s measures and actions.

In addition, because the Revised Draft 2045 CAP is an implementation program of the Air Quality Element of the General Plan, the County has a policy commitment to implement the Revised Draft 2045 CAP’s measures and actions (Air Quality Element Policy AQ 3.1 states that the County must “Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and greenhouse gas emission reduction goals”). For example, the U.S. EPA’s new Climate Pollution Reduction Grants (CPRG) program will provide grants to states, local governments, tribes, and territories to develop and implement plans for reducing greenhouse gas emissions and other harmful air pollution. Section 60114 of the Inflation Reduction Act provides an investment of \$5 billion to support efforts by states, municipalities, air pollution control agencies, tribes, and groups thereof to develop and implement strong, local greenhouse gas reduction strategies. This two-phase grant program provides funding of \$250 million for noncompetitive planning grants, and \$4.6 billion for competitive implementation grants. Los Angeles County is currently participating in the CPRG program. As another example, the Infrastructure LA program provides funding for climate strategies within the LA region. The objective of this program is to maximize the County’s share of federal infrastructure spending available through the Bipartisan Infrastructure Law for both regional and unincorporated areas, with an emphasis on projects that advance equity, sustainability, and climate resilience goals.

A comment also claims that the Revised Draft 2045 CAP will “impose prohibitively high costs on employers and residents of new housing.” The commenter provides no evidence to support this claim or any examples of which measures will impose high costs and for what reasons, such that a specific response cannot be provided. These comments do not address the adequacy or accuracy of the Recirculated Draft PEIR or any environmental effects of the proposed Project, and CEQA does not require the financial details of a proposed project to be addressed in an EIR. (CEQA Guidelines, § 15131).

Comments such as O5b-47 and O6-14 express concern that the Revised Draft 2045 CAP relies on future ordinances or plans that have not yet been developed to achieve its GHG reduction targets, and therefore cannot be approved under CEQA. The Revised Draft 2045 CAP does quantify

GHG emission reductions for Countywide performance goals that will be achieved through adoption and implementation of future plans and ordinances, but the Revised Draft 2045 CAP does not quantify specific GHG reductions for each individual future plan or ordinance. For example, Measure T6 quantifies the GHG reductions likely to occur by increasing the fleetwide percentage of light-duty vehicles in unincorporated Los Angeles County that are zero emissions vehicles to 30 percent by 2030; 50 percent by 2035; and 90 percent by 2045. To achieve these goals, a myriad of plans and ordinances are likely needed. Revised Draft 2045 CAP Appendix F presents seven implementing actions needed to achieve these performance goals, including developing a Zero Emissions Vehicle (ZEV) Master Plan (Action T6.1) and requiring all new development to install electric vehicle charging stations (EVCSs) through a condition of approval/ordinance (Action T6.3).

Such future plans and ordinances identified in the Revised Draft 2045 CAP are not relied on as CEQA mitigation measures for a project or plan. The Revised Draft 2045 CAP is a policy-level document and an implementation program of the Air Quality Element of the County's General Plan. As such, CAP measures and actions are not required to meet CEQA standards for mitigation measures. In addition, many of the future plans and ordinances will be developed to align the County's planning and infrastructure priorities with those of the state, including CARB. For example, the ZEV Master Plan required by Measure T6 is needed to support CARB's statewide light-duty fleet projections under the Advanced Clean Cars II Regulation, which is that 89 percent of all light-duty vehicles in California are battery electric or hydrogen fuel cell vehicles.^{13,14} As another example, Measure ES2 requires that unincorporated Los Angeles County's power demand is met entirely with zero-carbon electricity through enrollment in CPA's Green Power option. This transition already began in October 2022 (Revised Draft 2045 CAP p. 3-17), and CPA already has plans to meet this demand through 2035.¹⁵ Further, SB 100 requires 100 percent of retail electricity sales in California to be from carbon-free sources by 2045.¹⁶

Regarding the feasibility of such future plans and ordinances, CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (CEQA Guidelines, § 21061.1). The future plans and ordinances identified in the Revised Draft 2045 CAP meet this definition for several reasons. First, the County is committing to develop these implementation mechanisms over a reasonable period of time as indicated in Appendix E of the Revised Draft 2045 CAP, which is an implementation program of the Air Quality Element of the County's General Plan. Second, The County has identified implementation leads, agency partners, performance objectives, tracking metrics, cost estimates, and funding sources for all measures and actions in the Revised Draft 2045 CAP, including those plans and ordinances that have yet to

¹³ California Air Resources Board, 2023. *Advanced Clean Cars II*. Available at <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii>. Accessed August 2023.

¹⁴ California Air Resources Board and Energy+Environment Economics, 2022. *California PATHWAYS Model Outputs*. November 14, 2022. Available at <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed August 2023.

¹⁵ Clean Power Alliance, 2022. 2022 Integrated Resource Plan. November 1. Page 18. Available at https://cleanpoweralliance.org/wp-content/uploads/2022/11/cpasc_narrative_public.pdf. Accessed August 2023

¹⁶ California Energy Commission, 2022. *SB 100 Joint Agency Report*. Available at <https://www.energy.ca.gov/sb100>. Accessed August 2023.

be developed. Third, the County is required to actively monitor the CAP and track its progress in reducing GHG emissions, provide annual implementation reports to the public, and update the GHG emissions inventory and the CAP every five years (Revised Draft 2045 CAP pp. 4-1 to 4-8). For these and other reasons, the Revised Draft 2045 CAP's measures and actions are considered feasible.

To meet the requirements of CEQA Guidelines section 15183.5(b), a CAP must only analyze GHG reductions “resulting from specific actions *or categories of actions anticipated* within the geographic area” (emphasis added). There is no CEQA requirement that a CAP include only actions that have already been implemented, adopted, or approved by a lead agency. Also, please see General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist.

Further, there is a difference between a GHG reduction measure, strategy, or action identified in a CAP and a project requirement as identified in a CEQA Streamlining Checklist. Project applicants choosing to use the Revised Draft 2045 CAP to streamline their CEQA review process are not required to implement all performance goals (i.e., measures, strategies, and actions) identified in the Revised Draft 2045 CAP. Rather, applicants must show consistency with the Revised Draft 2045 CAP through use of the Checklist, which was written in accordance with CEQA Guidelines section 15183.5(b)(1)(D). Comments regarding the ability to achieve equivalent reductions using alternative measures in place of the Checklist requirements have been addressed in General Response 3, which also includes revisions to the Checklist and Draft 2045 CAP Appendix F to address the concerns raised by those comments.

See also General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.

Quantitative Basis for the Revised Draft 2045 CAP

Some comments (e.g., O6-13 and O15-54) express concern regarding the quantitative analysis of the Revised Draft 2045 CAP, alleging that there is no technical substantiation for the projected GHG reductions and that the Revised Draft 2045 CAP does not quantify the reductions associated with the proposed measures. As mentioned above, the County conducted quantitative GHG modeling for eighteen (18) of the twenty-five (25) measures included in the Revised Draft 2045 CAP. The estimated reductions associated with each of these measures can be found in Chapter 3.3, *Strategies, Measures, and Actions*, of the Revised Draft 2045 CAP. The technical substantiation for these measures, i.e., full detail on data sources and calculation methods for estimating GHG emission reductions, can be found in Appendix B, *Emissions Forecasting and Reduction Methods*.

Comments (e.g., O15-71) also state that reduction measures should be quantified separately from the projected impact that statewide laws and mandates will have on the County's GHG emissions. The projected impact of preexisting federal, state, and County regulations is referred to as the Adjusted Business-as-Usual (BAU) Forecast. The Adjusted BAU Forecast is quantified prior to the modeling of all local GHG reduction measures and actions identified in the Revised Draft 2045 CAP so the County can determine the amount of reduction necessary to achieve Revised

Draft 2045 CAP targets after accounting for reductions that would be achieved by preexisting regulations. Commenters can refer to Chapter 2.2, *Emissions Forecasts*, for an explanation and visual representation of the Adjusted BAU Forecast. Further detail on the modeling approach and data sources underlying the Adjusted BAU Forecast can be found in Appendix B, *Emissions Forecasting and Reduction Methods*.

2.2.6 General Response 6: Offsite GHG Emissions Reduction Program Framework

The County has received several comments expressing concern that the Revised Draft 2045 CAP’s proposed Offsite GHG Reduction Program Framework (hereafter referred to as the “Offsite Program Framework”) is not well defined and may not provide the GHG reductions that are needed from future development to demonstrate compliance with the Revised Draft 2045 CAP CEQA streamlining requirements using Step 4 of the Checklist (Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions). Commentors express concern that the Offsite Program Framework is flawed in that it does not adhere to the 2022 Scoping Plan’s tiered approach to GHG mitigation that allows GHG offset credits or reductions generated from non-local measures after prioritizing on-site and local measures. Additionally, commentors are concerned about the GHG Reduction Program Framework’s lack of information regarding the cost, feasibility, schedule, or scale of a future Offsite GHG Reduction Program.

More discussion of the requirements of the Checklist is included in General Response 3. Singular, more focused questions are addressed by Individual Responses in Section 2.3 of this document.

Draft 2045 CAP Action ES5.4 calls for developing an Offsite GHG Reduction Program, which future development projects could then use as an alternative GHG emissions reduction measure to one or several Revised Draft 2045 CAP CEQA streamlining requirements. Section F.4 of the Checklist describes the Offsite GHG Reduction Program Framework, including key concepts and principles that will ensure the program supports the ability of the County to achieve its 2045 GHG reduction targets. These include the following:

- All offsite projects must be located within the jurisdictional boundaries of unincorporated Los Angeles County so that the emissions reductions achieved by such projects will be accounted for in future GHG inventory updates and will contribute toward the County’s emissions reduction targets. (See General Response 4 for a discussion of GHG offset credits).
- All offsite projects must achieve widely accepted standards to ensure that the GHG reductions produced by offsite projects are environmentally sound; namely that the GHG reductions be real, permanent, quantifiable, verifiable, enforceable, and additional, as defined starting on page F-34 of Appendix F in the Revised Draft 2045 CAP.

- For further clarification regarding additionality, the offsite project must not otherwise be required by law or regulation and would not have occurred “but for the requirement to mitigate a project’s GHG impacts.”¹⁷

These principles are consistent with CARB guidance in Appendix D of the 2022 Scoping Plan. As written on page 30 of Appendix D, CARB states that “[i]f implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement *local*, off-site direct GHG reduction strategies.”¹⁸ (See Revised Draft 2045 CAP Appendix F, p. F-34.) CARB also suggests that jurisdictions develop local mitigation banks which could enable “project applicants to fund such projects in exchange for being credited with the resulting GHG reductions in their CEQA analyses” and presents several example project types, such as local urban forestry programs, local building retrofit programs, off-site EV chargers, and public transit subsidies. The Offsite GHG Reduction Program could include a mitigation bank that enables project applicants to fund such projects like this, and these project types are consistent with those already identified in the Checklist. (See Appendix F, p. F-37 et seq..)

Note that Section F.4 of the Checklist merely presents a *framework* for the Offsite GHG Reduction Program and does not represent the program itself. As stated on page F-35, the actual program will be developed after the Revised Draft 2045 CAP is adopted.

The Offsite GHG Reduction Program itself is not a Revised Draft 2045 CAP measure that is quantified for GHG reductions and it is not relied upon to achieve the Revised Draft 2045 CAP’s GHG emission reduction targets. Use of the Offsite GHG Reduction Program is not mandatory for project applicants wishing to streamline environmental review of their project’s GHG impacts using the Revised Draft 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b). It is a proposed alternative pathway that could be used, once the program is developed by the County, toward complying with the Checklist for purposes of CEQA streamlining. As such, there is no obligation for the Revised Draft 2045 CAP to provide information on the cost, timing, scale, or other characteristics of the Offsite GHG Reduction Program or the GHG emissions reduction projects that could be developed in the future to comply with the Offsite GHG Reduction Program’s requirements. Until the Offsite GHG Reduction Program is developed, it cannot be used as an alternative pathway for complying with the Checklist for purposes of CEQA streamlining.

Some comments, such as O5b-22, claim that the Offsite GHG Reduction Program is the County’s own “registry” of GHG offset credits. This is not the case. As explained on page F-35, the Offsite GHG Reduction Program, once developed, would allow project applicants to implement local projects that reduce GHG emissions in unincorporated Los Angeles County. It would be an option that would provide flexibility for project applicants to demonstrate compliance with the Revised Draft 2045 CAP CEQA streamlining requirements.

¹⁷ California Air Resources Board. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in June 2023.

¹⁸ Ibid., emphasis added.

Other comments, such as O5a-5, claim that such an Offsite GHG Reduction Program would be infeasible, expensive, and/or difficult to implement. Comment O5a-5 states, “Recent precedent demonstrates that very few local GHG reduction programs are viable at scale” and that “[e]ven if available, many local programs are extremely expensive and time consuming to implement—effectively rendering the programs prohibitive for many projects.” Comment O5b-25 states, “it will be extremely difficult (and expensive) for project applicants to implement GHG reduction programs within the County.” Neither comment provides evidence supporting these claims that the Offsite GHG Reduction Program would be prohibitively expensive or unusually difficult to implement, and thus a specific response cannot be provided. The County has not yet developed the Offsite GHG Reduction Program, as explained in Appendix F. It would therefore be speculative to estimate the cost, timing, scale, or other specific characteristics of the Offsite GHG Reduction Program.

Further, the 2022 Scoping Plan supports the use of local, off-site GHG emission reduction projects as CEQA mitigation: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement local, off-site direct GHG reduction strategies.” The 2022 Scoping Plan also encourages lead agencies to develop a program for local off-site GHG reduction projects: “To help remove barriers to employing these types of mitigation, lead agencies may wish to consider developing a local mitigation bank⁸² that enables project applicants to fund such projects in exchange for being credited with the resulting GHG reductions in their CEQA analyses.” The Offsite GHG Reduction Program aims to serve this purpose, as explained in Appendix F.

There are several existing offsite mitigation programs that are being used in a CEQA context by other agencies to mitigate the direct impacts of a project on air quality or climate change, and several that are under development. A few example programs are listed below. These programs are provided for informational purposes only.

- **Central Coast Climate Collaborative Program.** San Luis Obispo County Air Pollution Control District, County of Santa Barbara, County of Ventura, City of Santa Barbara, City of San Luis Obispo, and Community Environmental Council formed a tactical Regional GHG Collaborative Group to understand and identify opportunities for local carbon sequestration and GHG reduction projects. See <https://www.centralcoastclimate.org/>.
- **California Carbon Sequestration and Climate Resiliency Project Registry (SB 27).** Starting in 2023, this registry will be maintained by the California Natural Resources Agency for the purposes of identifying and listing projects in the state that drive climate action on the state’s natural and working lands. The Registry is seeking funding from State agencies and private entities and may provide additional options for offsite carbon reduction projects. See https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB27.
- **San Joaquin Valley Air Pollution Control District Emission Reduction Credit Program.** Emission Reduction Credits (ERCs) are granted to permitted sources for voluntary emissions reductions when facilities control emissions to levels beyond current or future regulatory requirements. ERCs approved by the District are then available for use to offset a subsequent permitted emissions increase by surrendering the ERC, whether used at the same location of

the emissions decrease, or at another location, generally after the sale of the ERC to a third party. See <https://ww2.valleyair.org/permitting/emission-reduction-credits-erc/>.

- **Sacramento Metropolitan Air Quality Management District Off-Site Construction Mitigation Fees.** When a project cannot fully mitigate construction criteria pollutant emissions by implementing off-road and on-road measures, a fee may be assessed to achieve the remaining mitigation. See <https://www.airquality.org/LandUseTransportation/Documents/Ch3Off-SiteMitigationFeesFinal4-2019.pdf>.
- **Bay Area Air Quality Management District Emissions Banking Program.** The Emissions Banking Program allows for the deposit of air pollutant ERCs. Companies can receive credits by introducing new emissions controls, such as upgrading or replacing old equipment, shutting down equipment, upgrading processes and materials, adopting stricter operating guidelines and adding control equipment to existing sources. These new controls must go beyond the requirements of current regulations and must be real, permanent, quantifiable, and enforceable. Banked credits are permanent and can be used to offset emissions increases from new, permitted projects and traded or sold to other companies for their use. See <https://www.baaqmd.gov/permits/emissions-banking>.

Some comments, such as O5b-23, state that the examples off-site project types listed in Appendix F are already required by current state or County regulations or by the Revised Draft 2045 CAP itself. The comment points to the local building solar program example in Appendix F, claiming that programs of this type are already required by the Revised Draft 2045 CAP, and therefore would not be additional to the Revised Draft 2045 CAP. To be a valid offsite project, a local solar project must not already be required by law or regulation, County building performance standard, or reach code requirement. Such a project would either accelerate measures, actions, and/or programs that are already identified in the Revised Draft 2045 CAP by providing additional funding to that program or would provide additional GHG reductions beyond those of the Revised Draft 2045 CAP measures and actions. An offsite project activity would be additional if it can be demonstrated that the activity would result in emissions reductions or removals exceeding what would be achieved in the absence of the incentive provided by the proposed project and the Checklist. The commenter states that the Revised Draft 2045 CAP already requires 100 percent zero-carbon electricity on-site and the Title 24 2022 Building Energy Efficiency Standards already contain mandatory requirements for solar readiness. However, both of these requirements are applicable only to *new* development, not *existing* development. The example local building solar program is for installing solar on existing buildings, as stated on page F-38: “Programs that target *existing* residential and commercial buildings in the project’s vicinity for rooftop solar photovoltaic installations....” (emphasis added). Further explanation regarding the program’s adherence to the standard of “additionality” is included on page F-37 under the “Additional” bullet.

To address comments stating that the Offsite Program Framework may not provide the GHG reductions that are needed from future development to demonstrate compliance with the Revised Draft 2045 CAP CEQA streamlining requirements using the Checklist (such as comment O5b-23), the Offsite Program Framework is not needed to meet the Revised Draft 2045 CAP’s targets. Consequently, the Offsite Program Framework is not a required component of the Revised Draft 2045 CAP as a qualified GHG reduction plan under CEQA Guidelines section

15183.5, and the Offsite Program is not mandated for new development to show compliance with the Revised Draft 2045 CAP for CEQA streamlining purposes. The Revised Draft 2045 CAP demonstrates how the County, through implementation of the Revised Draft 2045 CAP strategies, measures, and actions, can feasibly achieve the Countywide GHG emissions reductions targets that are consistent with the state's GHG emissions reduction targets and guidance represented by AB 1279 and the 2022 Scoping Plan. This includes a long-term target to reduce direct Countywide emissions to 83 percent below 2015 levels by 2045. Consistent with Appendix D of the 2022 Scoping Plan, the Revised Draft 2045 CAP and Checklist emphasize three priority areas for new development projects that address the state's largest sources of emissions over which the County has authority or influence over: transportation electrification, vehicle miles traveled (VMT) reduction, and building decarbonization. For the County to achieve its reduction targets, the Revised Draft 2045 CAP demonstrates that new development must employ these strategies related to the priority areas, which is why they are the focus of the Tier 1 measures included in the Checklist.

The Revised Draft 2045 CAP also has an aspirational goal of achieving carbon neutrality and acknowledges that implementation of the Revised Draft 2045 CAP will not be enough to achieve that goal: it would require the additional reduction of approximately 850,000 MTCO_{2e} Countywide by 2045. As stated on page 3-12 of the Revised Draft 2045 CAP, “[i]f the residual emissions, shown in Figure 3-1, cannot be eliminated through new regulations or technologies, the County will consider future implementation of carbon removal strategies (such as carbon capture and sequestration and direct air capture), along with future implementation of a carbon offsets/credits program, following completion of a feasibility study, to achieve carbon neutrality by 2045.”

In short, the Revised Draft 2045 CAP demonstrates a feasible path for the County to achieve its GHG reduction targets through the year 2045 without the use of carbon removal technologies, carbon offsets, or carbon removal projects but acknowledges that these mechanisms may be needed to achieve its aspirational goal of carbon neutrality.

Meanwhile, the County recognizes that some Revised Draft 2045 CAP CEQA streamlining requirements for new development (as presented in Table F-1 of the Checklist) may be infeasible for certain projects to implement and provides an alternative pathway so that project applicants can employ alternative GHG reduction measures within the County that would achieve the same or greater level of GHG emissions reductions as the Revised Draft 2045 CAP CEQA streamlining requirements they replace.

The County acknowledges the concerns that the Offsite GHG Reduction Program is not yet developed, and that once developed, it may not be suitable for every project to consider. However, the Checklist is only a tool to allow project applicants to streamline environmental review of their project's GHG impacts using the Revised Draft 2045 CAP's PEIR pursuant to CEQA Guidelines section 15183.5(b) (see General Response 3). As explained in General Response 4, the Revised Draft 2045 CAP does not preclude any project from choosing not to use the Checklist and conducting a project-level CEQA review of GHG impacts.

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2.3 Individual Responses

Comment letters are organized with public agency and tribes' letters first, followed by comments received from organizations second, and followed by comments received from individuals third. Within each grouping, letters are further organized chronologically by date and, within dates, alphabetically by last name. Where multiple letters were received from a single commenter, the letters are grouped such that all the comments from and responses to that commenter are provided together as of the date of the first communication.

Each comment letter has been assigned a corresponding alphabet letter designation, as well as a unique number. Letters from agencies are designated with a capital "A," letters from organizations are designated with a capital "O," and individual members of the public are designated "P." Individual comments within letters are marked sequentially with numbers, such as A1-1, A1-2, etc. For example, the County received the first agency letter from the from the California Air Resources Board (CARB), dated May 15, 2023. It is identified as letter A1; individual comments within the letter are signified as Comment A1-1, A1-2, and so forth.

2.3.1 Responses to Comments from Agencies and Tribes



Gavin Newsom, Governor
Yana Garcia, CalEPA Secretary
Liane M. Randolph, Chair

May 15, 2023

Ms.Thuy Hua, AICP
Supervising Regional Planner
County of Los Angeles Department of Regional Planning
320 W. Temple
Los Angeles, CA 90012
THua@planning.lacounty.gov

Dear Ms. Hua:

On behalf of the California Air Resources Board (CARB) staff, I am writing to provide comments on the County of Los Angeles’ 2045 Climate Action Plan (CAP) and its associated Recirculated Draft Program Environmental Impact Report (PEIR). As part of the 2022 Scoping Plan for Achieving Carbon Neutrality (Scoping Plan), CARB has included recommendations to help jurisdictions across the state ensure their CAPs are consistent with applicable greenhouse gas (GHG) goals and requirements,¹ because the entire state benefits from ensuring that CAPs stay in step with applicable GHG reduction goals and requirements. This consistency is especially important if the jurisdiction adopting the CAP intends to rely on the CAP for streamlining the GHG emissions analyses in the CEQA documents for new projects. As noted in Appendix D of the Scoping Plan, “[l]ocal government efforts to reduce [GHG] emissions within their jurisdiction are critical to achieving the State’s long-term climate goals.” As discussed below, CARB notes that there are several changes that could be made to the CAP to more fully align it with the recommendations in the Scoping Plan. These changes would make the CAP even more robust and would add legal defensibility if future residential and mixed-use developments intend to rely on the CAP for CEQA streamlining of GHG analyses.

A1-1

One strategy recommended in Appendix D that lead agencies can use to determine whether a project is consistent with the Scoping Plan and may be able to streamline its GHG analysis is to include a set of attributes included in Table 3—“Key Residential and Mixed-Use Project Attributes that Reduce GHGs.” The attributes in Table 3 of Appendix D have been shown by empirical research to reduce operational GHG emissions and allow for growth from residential and mixed-use development in a manner consistent with the state’s climate and equity goals, including those in Senate Bill (SB) 32 (2016). Moreover, Appendix D notes that tiering projects from a CEQA-qualified CAP is another approach to determining consistency with the Scoping Plan and enabling the streamlining of GHG analysis. CARB commends LA County for utilizing both of these approaches by including a checklist of project attributes in Appendix F of the proposed CAP and allowing for projects to tier their GHG analysis off of this document. Below, CARB suggests some modifications to the LA County CAP to better align its CEQA streamlining provisions with the recommendations in the Scoping Plan.

A1-2

¹ <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

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May 15, 2023
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Appendix F of Los Angeles County’s CAP describes a process for determining whether a project is consistent with the CAP for purposes of streamlining CEQA review. To be eligible for CEQA GHG streamlining, the CAP requires new discretionary projects subject to CEQA to demonstrate consistency with the County’s General Plan. If General Plan consistency can be demonstrated, projects proceed to the Climate Action Plan Consistency Review Checklist (CAP Checklist). Projects that demonstrate consistency with the checklist are considered by the County to be consistent with the CAP and therefore eligible for streamlining of the GHG emissions analysis portion of the applicable CEQA document. CARB commends the County for developing this checklist approach to assist future land-use projects in assessing their consistency with the CAP.

A1-3

After reviewing the consistency process in Appendix F of Los Angeles County’s CAP, CARB notes that it would encourage residential and mixed-use projects to include many project attributes consistent with the priority GHG reduction strategies found in Appendix D of the 2022 Scoping Plan. One example of this is building decarbonization. Appendix D of the Scoping Plan identifies the adoption of all-electric new construction reach codes for residential and commercial uses as an appropriate strategy for enacting building decarbonization. This strategy is clearly addressed in the CAP Checklist’s CAP Consistency Requirement #16 – “Electrify New Buildings.”

A1-4

However, some of the other strategies in the CAP Checklist’s requirements are less stringent than those recommended in Appendix D of the Scoping Plan. CARB notes that use of the CAP Checklist could allow for residential and mixed-use projects that do not include all of the attributes recommended in Table 3 to qualitatively demonstrate consistency with the Scoping Plan. For instance, a key project attribute for new development is to provide “EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval.” The CAP consistency checklist, however, only requires that projects “Comply with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of electric vehicle (EV) charging infrastructure (EVCSs) and readiness.”

A1-5

Likewise, Table 3 of Appendix D includes several key project attributes to help projects achieve reductions in vehicle miles traveled (VMT). Some of these attributes are not specifically addressed in LA County’s CAP consistency checklist, but are instead addressed in the County’s General Plan. As an example, one of the Scoping Plan’s key project attributes to achieve VMT reductions is that new development be “located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).” The County’s General Plan includes several policies that are related to infill development. However, these policies merely encourage infill and do not require this type of development. An example of this is the General Plan’s **Policy LU 4.1**, which reads: “Encourage infill development in urban and suburban areas on vacant, underutilized, and/or brownfield sites.” CARB notes that this could potentially lead to situations where new projects endeavor to streamline their CEQA GHG analysis while not being located in infill areas and therefore not clearly demonstrating consistency with the Scoping Plan.

A1-6

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Appendix D of the Scoping Plan notes that new development can align with State GHG reduction goals while simultaneously demonstrating consistency with State equity goals and advancing fair housing. Table 3 of Appendix D lists key project attributes related to affordable housing. One of these key project attributes is that “[a]t least 20 percent of units included are affordable to lower-income residents.” This would apply to all new residential and mixed-use development. The CAP’s consistency checklist does not address affordable housing, but does require that projects are consistent with the land use and housing elements of the General Plan. The County’s housing element includes Policy 3.4 “Require future Development Agreements and project-based specific plans to include an affordable housing implementation plan that exceeds the requirements in the County’s Inclusionary Housing Ordinance.” The County’s Inclusionary Housing Ordinance requires a 20 percent affordable housing set-aside on certain parcels, but not all.

A1-7

Conclusion

CARB appreciates the opportunity to review and comment on Los Angeles County’s 2045 Climate Action Plan and its associated PEIR. CARB believes that the CAP includes many elements that are consistent with the 2022 Scoping Plan’s recommendations for CAPs. However, as explained above, there are also opportunities for the County to demonstrate an even more robust relationship between the CAP’s recommendations for new residential and mixed-use development and the recommended key project attributes identified in Appendix D of the Scoping Plan. Strengthening the CAP to take advantage of these opportunities will allow for increased legal defensibility when the CAP is used for the purposes of CEQA streamlining of residential and mixed-use development. If you have any questions, please feel free to contact Pedro Peterson at (279) 208-7367 or by email at pedro.peterson@arb.ca.gov.

A1-8

Sincerely,



Jennifer Gress, Chief
Sustainable Transportation and Communities Division
California Air Resources Board
jennifer.gress@arb.ca.gov

cc: See next page.

Thuy Hua
May 15, 2023
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cc: Annalisa Schilla, Assistant Division Chief, Sustainable Transportation and Communities Division
annalisa.schilla@arb.ca.gov

Pedro Peterson, Manager, Local Planning Section, Sustainable Transportation and Communities Division
pedro.peterson@arb.ca.gov

Matt Jones, Sustainable Transportation and Communities Division
matthew.jones@arb.ca.gov

2.3.1.1 Letter A1: California Air Resources Board

- A1-1 The County appreciates comments from the California Air Resources Board (CARB) related to the Revised Draft 2045 Climate Action Plan’s (CAP’s) consistency with CARB’s 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) and agrees that maximizing the Revised Draft 2045 CAP’s consistency with the 2022 Scoping Plan is critical, given that local action is a core component of the state’s ability to meet its greenhouse gas (GHG) reduction targets. The County appreciates CARB’s recommendations to align the Revised Draft 2045 CAP more fully with the recommendations within the 2022 Scoping Plan. Please see responses to individual comments below for detailed discussion regarding these specific recommendations.
- A1-2 The County appreciates CARB’s support for the Revised Draft 2045 CAP CEQA Streamlining Checklist (Checklist) approach that can be used by project applicants to streamline their GHG impact analyses under CEQA (see Revised Draft 2045 CAP, Appendix F). For responses to CARB’s specific recommendations for the Revised Draft 2045 CAP and Checklist, see responses below.
- A1-3 The Checklist includes many of the project attributes consistent with the priority GHG reduction strategies included in Appendix D, Table 3, of the 2022 Scoping Plan. Please refer to Revised Draft 2045 CAP Appendix H, *2022 Scoping Plan Recommendations Consistency*, for a comprehensive review of all project attributes listed in the 2022 Scoping Plan.
- A1-4 Action ES5.1 directs the identification of new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. This is consistent with Appendix D of the Scoping Plan which identifies the adoption of all-electric new construction reach codes for residential and commercial uses as an appropriate strategy for enacting building decarbonization. Checklist Action #16, *Decarbonize New Buildings*, is a Tier 2 item that recommends that new projects achieve zero GHG emission buildings by 2030 and zero net energy beyond 2030. The Checklist will be updated administratively to incorporate new GHG emissions reduction techniques or to comply with later amendments such as reach codes, which may include a forthcoming building decarbonization ordinance.
- A1-5 CARB is correct that a project could successfully complete the Checklist without including all the project-specific attributes identified in 2022 Scoping Plan Appendix D, Table 3. The 2022 Scoping Plan Appendix D states that residential and mix-used projects should contain key project attributes in Table 3 (of Appendix D of the Scoping Plan) “*absent consistency with an adequate, geographically specific GHG reduction plan such as a CEQA-qualified CAP*” (emphasis added).¹ The Revised Draft 2045 CAP serves as a CEQA-qualified CAP upon adoption and, as such, is not

¹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Pages 23 and 24. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed October 2023.

required to mimic all attributes of Table 3. This is true of the electric vehicle (EV) charging infrastructure (e.g., electric vehicle charging stations [EVCSs]) built into the project. The Checklist does not require that all projects provide EV charging infrastructure that meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval. Instead, Checklist item #8 requires several things, including compliance with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of EVCSs and readiness, as well as compliance with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan.

The Revised Draft 2045 CAP calls for the development of a Zero Emission Vehicle Master Plan, which may include ordinances for new development regarding EVCS. Without performing complete due diligence for developing such an ordinance, the County does not want to formally adopt an EVCS requirement for new development. A forthcoming EVCS ordinance may require the most ambitious voluntary standard in the California Green Building Standards Code. However, this has not yet been adopted. Furthermore, such a requirement is not needed for the Revised Draft 2045 CAP to achieve its GHG reduction targets for 2030, 2035, and 2045.

The Revised Draft 2045 CAP includes specific EV performance goals, including for Measure T6, Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales. For example, one performance goal is to increase the fleetwide percentage total amount of light-duty vehicles in unincorporated Los Angeles County that are zero emission vehicles (ZEVs) to 30 percent by 2030, 50 percent by 2035, and 90 percent by 2045. Another performance goal is to increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to: 68 percent by 2030 and 100 percent by 2035. Regarding EVCS installation, Measure T6 calls for installing 37,000 total new public and private shared EVCSs by 2030, 74,000 by 2035, and 140,000 by 2045.

In addition, Action T6.3 requires all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces.

Additional Checklist requirements such as Checklist item #18 (Water Use Efficiency and Water Conservation) and item #25 (Tree Plantings) are more stringent than Appendix D of the Scoping Plan given that Appendix D of the Scoping Plan gives less emphasis on these actions. While the Checklist does not, and is not required to, replicate the Scoping Plan Appendix D Table 3 attributes, it demonstrates the ability to meet the overall GHG emission reduction goals.

A1-6 CARB points to the 2022 Scoping Plan’s recommendation that to reduce project-specific vehicle miles traveled (VMT), new development should be “located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and

essential public services (e.g., transit, streets, water, sewer).” CARB correctly notes that both the County’s General Plan and the Revised Draft 2045 CAP encourage, but do not require, infill development. Further, the Checklist does not mandate that future development projects be transit-oriented or be located in infill sites. Therefore, CARB is also correct that projects could successfully complete the Checklist, thereby streamlining their GHG analysis pursuant to CEQA, without being located in infill areas.

In response to CARB’s comment stating that such non-infill projects would be eligible for streamlining while “not clearly demonstrating consistency with the Scoping Plan,” the 2022 Scoping Plan states that projects that incorporate all project attributes contained in Appendix D Table 3, such as the infill characteristic, would be “clearly consistent” with the state’s climate goals and the 2022 Scoping Plan, and “may result in a less-than-significant GHG impact under CEQA.”² However, CARB also states that projects that do not achieve every single attribute listed in Table 3 may still be consistent with the 2022 Scoping Plan, provided there is evidence supporting this conclusion. The full text from CARB is below:

*These project attributes are intended as a guide to help local jurisdictions qualitatively identify those residential and mixed-use projects that are **clearly** consistent with the State’s climate goals, since these attributes address the largest sources of operational emissions for residential projects. In general, residential and mixed-use development projects that incorporate **all** of these key project attributes are aligned with the State’s priority GHG reduction strategies for local climate action as shown in Table 1 and with the State’s climate and housing goals. As such, they are considered to be consistent with the Scoping Plan or other plans, policies, or regulations adopted for the purposes of reducing GHGs; therefore, the GHG emissions associated with such projects may result in a less-than-significant GHG impact under CEQA. Lead agencies may determine, with adequate additional supporting evidence, that projects that incorporate some, but not all, of the key project attributes are consistent with the State’s climate goals.*

The Revised Draft 2045 CAP’s targets align with CARB’s statewide targets for 2030 and 2045, as explained in the Revised Draft 2045 CAP and Recirculated Draft Program Environmental Impact Report (PEIR) (Revised Draft 2045 CAP pp. 2-9 to 2-12; Recirculated Draft PEIR pp. 2-6 to 2-8). These targets represent levels below which GHG emissions would not be cumulatively considerable, pursuant to CEQA Guidelines section 15064.4(b)(3), stating “[i]n determining the significance of impacts, the lead agency may consider a project’s consistency with the state’s long-term climate goals or strategies”. The Revised Draft 2045 CAP shows a quantitative pathway toward achieving these targets through implementation of its numerous strategies, measures, and actions. The Checklist identifies those measures and actions

² California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Pages 23 and 24. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed July 2023.

that new development projects intending to streamline must implement in order to show consistency with the Revised Draft 2045 CAP and to contribute their fair share to the Revised Draft 2045 CAP's targets. These and other elements demonstrate that the Revised Draft 2045 CAP meets the requirements of CEQA Guidelines section 15183.5(b), thereby allowing future projects to streamline their GHG impacts evaluation pursuant to CEQA Guidelines section 15064.4. For additional discussion of how the Revised Draft 2045 CAP meets the requirements of CEQA Guidelines section 15183.5(b), please refer to Revised Draft 2045 CAP pp. 1-4 to 1-5 and Recirculated Draft PEIR pp. 2-9 to 2-12 and 2-17 to 2-18.

In addition, Senate Bill (SB) 375 requires regional transportation plans (RTPs) prepared by metropolitan planning organizations (MPOs) to incorporate a sustainable communities strategy (SCS) that demonstrates how the region would achieve GHG emission reduction targets set by CARB. Under SB 375, CARB is required, in consultation with the state's MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035 (Recirculated Draft PEIR p. 3.9-19). This would serve to further reduce VMT from future projects within the County.

Appendix H also explains how the Revised Draft 2045 CAP is consistent with CARB's recommendations for infill land use development. For example, Measure T1: Increase Density Near High-Quality Transit Areas includes Action T1.1: Incentivize residential and community-serving uses to be developed in high-quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure (Revised Draft 2045 CAP, p. 3-29). The CEQA Checklist requires that, for projects located within an HQTA, Specific Plan, or Area Plan, the project must achieve a minimum of 20 dwelling units per acre, consistent with the 2021–2029 Revised County of Los Angeles Housing Element Update (Housing Element) rezoning; if the project is not located within an HQTA, it must locate residential and employment centers within 1 mile of an HQTA (Revised Draft 2045 CAP, Appendix F, p. F-20).

Further, as discussed in the Recirculated Draft PEIR and Revised Draft 2045 CAP, the Revised Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, land use, or specific projects are proposed as part of the Revised Draft 2045 CAP.

Please refer to Revised Draft 2045 CAP Appendix H for additional discussion of the Revised Draft 2045 CAP's consistency with the 2022 Scoping Plan's recommendations regarding infill development.

The Revised Draft 2045 CAP's CEQA Streamlining Checklist is only one of the tools used to encourage infill housing. More appropriately, the Housing Element's Rezoning Program focuses density increases in areas with existing infrastructure and

outside of known natural hazard and resources areas. As a result, the Rezoning Program focuses the majority of new housing as infill housing in more urban areas of the County.

A1-7 Similar to Comment A1-6 above, CARB notes that the Checklist does not require affordable housing in new development. CARB is correct. CARB is also correct that County General Plan Housing Element Policy 3.4 includes affordable housing requirements, and also that the County’s Inclusionary Housing Ordinance requires a range of 5 to 20 percent affordable housing set-aside options on certain parcels depending on the affordability level of the units and project size. The range for the set-aside options is necessary to ensure financial feasibility of projects. The County is also addressing the risk of displacement through Program 43 in the Housing Element, such as developing an anti-displacement mapping tool. Chapter 1 of the Revised Draft 2045 CAP discusses the County’s commitment to equitable implementation of the Revised Draft 2045 CAP, including incorporating anti-displacement tools during the implementation of building decarbonization actions (Revised Draft 2045 CAP, p. 1-13 – 1-19).

Revised Draft 2045 CAP Appendix H explains how the Revised Draft 2045 CAP is consistent with CARB’s recommendations for affordable housing development. The Revised Draft 2045 CAP prioritizes infill and affordable housing development in a myriad of ways. For example:

- Action ES3.5 states, “Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings.” (Revised Draft 2045 CAP p. 3-21.)
- Action ES5.1 calls for requirements for new development, but includes “affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability.” (Revised Draft 2045 CAP p. 3-25.)
- Action E1.5 states, “Create a comprehensive fund aggregation program to support energy efficiency, decarbonization and resilience in new and existing affordable housing.” (Revised Draft 2045 CAP p. 3-48.)

Regarding the need for all future projects to incorporate every attribute listed in Table 3, including 20 percent affordable housing units, to be consistent with the 2022 Scoping Plan, see response A1-6 above. As discussed, this is not a requirement to demonstrate consistency with the 2022 Scoping Plan. Further, the Revised Draft 2045 CAP meets the requirements of CEQA Guidelines section 15183.5(b), thereby allowing future projects to streamline their GHG impacts evaluation pursuant to CEQA Guidelines section 15064.4.

Please also refer to Revised Draft 2045 CAP Appendix H for additional discussion of the Revised Draft 2045 CAP’s consistency with the 2022 Scoping Plan’s recommendations regarding affordable housing in new development.

A1-8 The County appreciates comments from CARB related to the Revised Draft 2045 CAP's consistency with the 2022 Scoping Plan. Although it is likely that there are areas where the Revised Draft 2045 CAP could be revised to exactly mimic the 2022 Scoping Plan, the Revised Draft 2045 CAP already clearly aligns with the Scoping Plan, as detailed in Revised Draft 2045 CAP Appendix H. Further, the Revised Draft 2045 CAP and Recirculated Draft PEIR demonstrate, with substantial evidence, that the Revised Draft 2045 CAP meets the requirements of CEQA Guidelines section 15183.5(b), thereby allowing future projects to streamline their GHG impacts evaluation pursuant to CEQA Guidelines sections 15064, 15064.4 and 15183.5. (Revised Draft 2045 CAP pp. 1-4 to 1-5; Recirculated Draft PEIR pp. 2-9 to 2-12 and pp. 2-17 to 2-18.)

Comment Letter A2

From: [Ryan Nordness](#)
To: [DRP EPS Climate](#)
Subject: DEIR Los Angeles County 2045 Climate Action Plan
Date: Wednesday, April 26, 2023 12:58:17 PM

CAUTION: External Email. Proceed Responsibly.

Hello,

Thank you for inviting San Manuel into the discussion over unincorporated Los Angeles county's management of greenhouse gas emissions. We have no overt concerns concerning the management of the emissions created by community activities, unless however, this plan would include the development of carbon reduction projects within tribal territory. These projects could include community parks, forests/preserves, carbon capture plants, etc.. Additionally, the tribe is interested in any educational, land acknowledgement, or interpretive opportunities that would result in this DEIR. Once again, San Manuel thanks you for this opportunity to comment on the 2045 Climate Action Plan.

A2-1

A2-2

Respectfully,
Ryan Nordness

Ryan Nordness

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26569 Community Center Dr Highland, California 92346



2.3.1.2 Letter A2: San Manuel

- A2-1 The County acknowledges San Manuel’s (i.e., the San Manuel Band of Mission Indians) comment related to development of carbon reduction projects within tribal territory. Section 3.16, *Tribal Cultural Resources*, of the Recirculated Draft PEIR identifies and evaluates whether the Revised Draft 2045 CAP would result in a significant impact on tribal cultural resources. As a program EIR, the Recirculated Draft PEIR did not speculate on the specific environmental impacts of individual projects that could be facilitated by implementation of the Revised Draft 2045 CAP measures and actions. However, the impacts of implementing specific measures and actions were considered as part of the analysis to the degree that specific information about implementation is known. As described in Section 3.16.2.3, renewable energy and related infrastructure projects facilitated by Revised Draft 2045 CAP measures and actions could result in the development of more rural or open lands in areas of the unincorporated County where comparatively minimal ground disturbance has occurred. Future projects facilitated by the Revised Draft 2045 CAP measures and actions could result in significant impacts on sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe qualifying as tribal cultural Resources. As such, the Recirculated Draft PEIR concluded that impacts on tribal cultural resources would be significant. However, implementation of Mitigation Measure 3.16-1 would reduce impacts to a less-than-significant level if specific projects have potentially significant impacts.
- A2-2 In response to the comment related to educational, land acknowledgement, or interpretive opportunities that would result in the Recirculated Draft PEIR, Sections 3.6, *Cultural Resources*, and 3.16, *Tribal Cultural Resources*, of the Recirculated Draft PEIR identifies and evaluates whether the Revised Draft 2045 CAP would result in a significant impact on cultural and tribal cultural resources, respectively. Sections 3.6.2.3 and 3.16.2.3 describe impacts to cultural and tribal cultural resources, and include mitigation measures to reduce impacts to a less-than-significant level if specific projects implemented in the future have potentially significant impacts. Mitigation Measures 3.6-4 through 3.6-6 describe specific actions that would be required in the event archaeological resources are encountered during construction of a project, which include treatment of archaeological resources (i.e., avoidance and preservation in place) and curation and disposition of cultural materials (i.e., curation to repositories that are accredited by the American Association of Museums, donate the collection to a local California Native American tribe(s), offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes). A land acknowledgement is included at the beginning of the Revised Draft 2045 CAP in recognition of the First Peoples of Los Angeles County.



Robert C. Ferrante
Chief Engineer and General Manager
1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

May 15, 2023
Ref. DOC 6875668

VIA ELECTRONIC MAIL: climate@planning.lacounty.gov

Ms. Thuy Hua
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Dear Ms. Hua:

Los Angeles County Revised Draft 2045 Climate Action Plan – Comment Letter

The Los Angeles County Sanitation Districts (Sanitation Districts) appreciates the opportunity to comment on the LA County Revised Draft 2045 Climate Action Plan (Revised Draft 2045 CAP). We thank you for considering and incorporating our previous comments submitted on July 6, 2022 (copy enclosed). The Sanitation Districts continues to support the Revised Draft 2045 CAP, however, would like to provide the following additional comments below for your consideration:

- 1. The Revised Draft 2045 CAP contains action measures, specifically Actions E5.2 and E5.3, related to the use of recycled water. The Sanitation Districts has a long history of providing affordable, high-quality recycled water to public and private water suppliers to help meet the water supply needs for more than five million people within the Sanitation Districts' service area.
2. The Sanitation Districts request that the County consider public agency projects covered by their own CAPs as in compliance with the Revised Draft 2045 CAP. Further, we request that a public agency be able to submit their own CAP in lieu of the checklist.

A3-1
A3-2
A3-3

We again appreciate your leadership and your team's dedication to help update the Los Angeles County's 2045 CAP. Please contact me at (562) 908-4288, extension 2701, or rtremblay@lacsd.org, if the Sanitation Districts can be of any assistance as you work toward implementation of the Revised Draft 2045 CAP.

Very truly yours,
Raymond L. Tremblay
Raymond L. Tremblay
Department Head
Facilities Planning

RT:JL:MNH:pb
Enclosure
DOC 6920020

A Century of Service



**LOS ANGELES COUNTY
SANITATION DISTRICTS**
Converting Waste Into Resources

Robert C. Ferrante

Chief Engineer and General Manager

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July 6, 2022

Ms. Thuy Hua
Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, California 90012

Dear Ms. Hua,

LA County Draft 2045 Climate Action Plan – Comment Letter

On behalf of the Los Angeles County Sanitation Districts (Sanitation Districts) we are pleased to support the LA County Draft 2045 Climate Action Plan (Draft 2045 CAP) and would like to provide the comments below for your consideration. The Sanitation Districts serve the wastewater and solid waste management needs of approximately 5.6 million residents in the Los Angeles Basin, Santa Clarita Valley, and Antelope Valley. We operate eleven water reclamation plants, two sanitary landfills, three materials recovery/transfer facilities, and two facilities that convert landfill gas into renewable energy. An important part of our mission is to convert waste into resources such as recycled water, energy, and recycled materials.

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As stated in the Draft 2045 CAP, now, more than ever, climate change has become a real, urgent, and significant threat, with impacts being felt today in Los Angeles County and around the globe. The Draft 2045 CAP adapts Los Angeles County programs and services to reduce the unincorporated County areas’ greenhouse gas (GHG) emissions and help limit global temperature increases. Further, the Draft 2045 sets forth Los Angeles County’s path toward meeting the goals of the Paris Agreement and achieving carbon neutrality for unincorporated areas of the County. The document is comprehensive, thoughtful and reflects the diversity and complexity of Los Angeles County.

As mentioned above, the Sanitation Districts support the vision of the Draft 2045 CAP, however, we offer the following two comments for your consideration:

- 1) Many Sanitation Districts’ facilities are included in the Draft 2045 CAP. To ensure potential emission reductions can be achieved and to avoid double-counting emissions or proposed reductions, an inventory boundary should be determined, and each individual agency should account for and report their own GHG activities within their organization’s responsibilities and sphere of control. Similarly, emission estimation methods should reflect the same inventory boundary and rely on the best available information. The Sanitation Districts have performed such an inventory using site-specific data rather than population-based estimates as assumed in the Draft 2045 CAP. While both methods are acceptable, the publication of conflicting emission estimates can be confusing to the public and decision-makers. Due to these differences, we recommend that the Draft 2045 CAP include references to the Sanitation Districts’ inventory and to state that Los Angeles County and the Sanitation Districts will work cooperatively to achieve carbon neutrality. A copy of our recently completed “2021 Greenhouse Gas Inventory Report” and a third-party verification of the report titled “Positive Verification Opinion for Greenhouse Gas Emissions and

DOC 6618568

Ms. Hua

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July 6, 2022

Reductions for Emissions Year 2021” are attached. We would be happy to provide supporting data and information for our analysis, upon request.

- 2) The Draft 2045 CAP contains an action to capture all fugitive wastewater treatment process emissions and convert them to fuel. The Sanitation Districts would like to clarify whether Regional Planning meant to state that methane emissions from wastewater treatment processes should be captured and used as a vehicle fuel. GHG emission protocols assume nitrous oxide emissions are emitted from the wastewater treatment process and effluent discharge. If process nitrous oxide emissions cause Sanitation Districts’ facilities to become carbon positive, control technologies or process enhancements would be assessed. Regarding nitrous oxide emissions from wastewater effluent, it’s unlikely such a source could be controlled after being discharged from a treatment plant. In addition, fugitive emissions are defined by the EPA as “those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening,” so it’s unclear whether such a specific statement should be made about fugitive emissions. Therefore, we recommend this action be changed to reflect that methane produced during the wastewater treatment process is collected and converted into renewable energy or fuel. Please see our website (www.lacsd.org) under “Solid Waste Programs – Food Waste Recycling” and “JWPCP CNG Fueling Facility – Alternative Fuels” for further information about our activities to utilize digester gas from wastewater treatment from diverted processed organic waste to produce renewable natural gas that is available for use as a renewable low carbon vehicle fuel.

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(cont.)

We know that updating Los Angeles County’s CAP was a significant undertaking and appreciate your leadership and all the people who have brought their dedication to help guide this effort. Please contact me at rtremblay@lacsd.org or at (562) 908-4288, extension 2701 if the Sanitation Districts can be of any assistance as you work toward implementation of the 2045 CAP.

Very truly yours,

Ray Tremblay
 RAYMOND L. TREMBLAY
 Department Head
 Facilities Planning

RT:pb

Attachments

cc: climate@planning.lacounty.gov

2021 Greenhouse Gas Inventory Report

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(cont.)



**LOS ANGELES COUNTY
SANITATION DISTRICTS**
Converting Waste Into Resources

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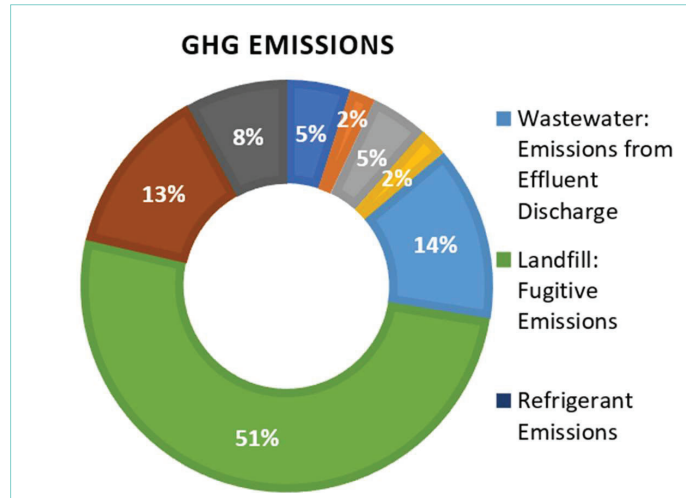
Appendix I: Tulare Lake Compost

Appendix J: Biogas-to-Vehicle Fuel

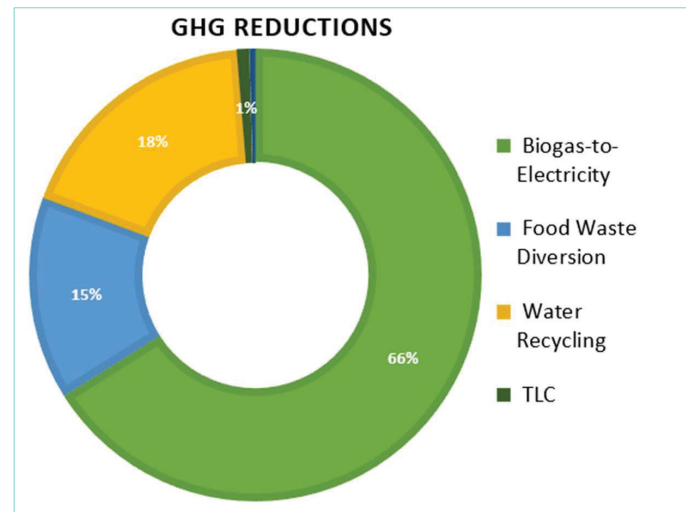
Executive Summary

This report compiles results from the 2021 greenhouse gas (GHG) inventory evaluation conducted by the Air Quality Engineering Section that encompasses all aspects of the Districts’ operations. The evaluation provides information on the GHG quantities that the Districts emitted and reduced from operations, renewable energy projects, and waste diversion projects.

Of the emissions sources, fugitive landfill emissions made up 51% of the CO₂e produced. The following largest sources were emissions from wastewater effluent discharge (14%) and purchased electricity (13%).



As reported above, Districts’ facilities reduced more GHG emissions than were produced. Reductions were led by biogas-to-electricity (66%), followed by water recycling (18%) and food waste diversion (15%).



It is important to remember that consultants apply a wide variety of assumptions when estimating GHG emissions and reductions. The information contained herein includes assumptions Air Quality Engineering believes are defensible. Specific information pertaining to these calculations are contained in the report below.

2021 Greenhouse Gas Inventory Report

Background and Methodology

Emissions

The GHG emission calculations were primarily based on the current Local Government Operations Protocol (LGOP) Version 1.1, except as noted below. The LGOP categorized GHG emissions calculations into three scopes, as follows:

| | |
|---------|---|
| Scope 1 | Direct emissions include emissions directly resulting from stationary and mobile combustions, process emissions from wastewater treatment processes, and fugitive emissions from landfills. |
| Scope 2 | Indirect emissions include emissions from purchased electricity and natural gas. |
| Scope 3 | Other emissions include emissions from employee commuting, employee business travel, and waste disposed of outside the organization boundary. <i>[This scope was not included in the evaluation because the Districts do not have financial or operational control over this emissions category].</i> |

The LGOP draws a distinction between biogenic and anthropogenic emissions by excluding CO₂ from biogenic combustions. By way of review, biogenic emissions (which can only be CO₂) are considered part of the natural carbon cycle, thus typically not included in GHG inventories. Anthropogenic emissions are fossil in origin, thus adding to the existing GHG emissions inventory. For our industry, anthropogenic emissions can be fossil-based CO₂, CH₄, and N₂O. Therefore, they are included in the protocol and this evaluation as direct emissions.

Estimates of GHG Reduction

The standard protocols cited above do not estimate reductions; therefore, other calculations were used to estimate the GHG reductions. Below is the summary of methods used to evaluate the GHG reductions:

1. Biogas-to-Energy: The 2018 EPA’s Avoided Emissions and Generation Tool (AVERT) emission factor was used to calculate avoided emissions from electricity produced by biogas-to-energy projects.
2. Water Recycling: The GHG reductions from water recycling were determined by comparing the energy intensity of importing water from the State Water Project (SWP) to the energy intensity of recycled water.
3. Food Waste Diversion: The EPA’s Waste Reduction Model (WARM) was used to determine the GHG reduction from the food waste diversion program.
4. Tulare Lake Compost (TLC): The Biosolids Emissions Assessment Model (BEAM) was used to estimate the GHG reduction from the offset of fertilizer that would otherwise be used on the land.
5. Biogas-to-Vehicle Fuel: Carbon intensities comparison was used to estimate GHG reduction from this project.

Results

For consistency, all emission and reduction results use the standard reporting format, metric tons of CO₂ equivalent (MTCO₂e). CH₄ and N₂O emissions were converted to CO₂ equivalent using global warming potentials (GWP¹). Based on the evaluation, in 2021, the Districts emitted 234,851 MTCO₂e and reduced 287,449 MTCO₂e of GHGs. Thus, net emissions of GHG are a negative 52,598 MTCO₂e (see Tables 1.1 and 1.2).

¹ GWPs for CH₄ and N₂O are 28 and 265, respectively. Source: Intergovernmental Panel on Climate Change Fifth Assessment Report, 2014.

| Table 1.1 GHG Emissions | |
|--|----------------|
| Stationary Emissions | 12,222 |
| Mobile Emissions | 4,951 |
| Wastewater: Emissions from Stationary Combustion | 11,008 |
| Wastewater: Emissions from Nitrification/Denitrification Process | 5,478 |
| Wastewater: Emissions from Effluent Discharge | 33,665 |
| Landfill: Fugitive Emissions | 124,558 |
| Refrigerant Emissions | 126 |
| Purchased Electricity | 32,574 |
| Natural Gas | 19,626 |
| Total | 244,207 |

| Table 1.2 GHG Reductions | |
|--------------------------|----------------|
| Biogas-to-Electricity | 189,716 |
| Food Waste Diversion | 41,944 |
| Water Recycling | 52,214 |
| TLC | 2,439 |
| Biogas-to-Vehicle Fuel | 1,136 |
| Total | 287,449 |

A. Emissions

The LGOP categorized emission calculations into three scopes: direct emissions, indirect emissions, and other emissions. This evaluation includes direct and indirect emissions but excludes other emissions because the Districts do not have financial or operational control over this category. Below is the summary of 2021 direct emissions and indirect emissions.

| Table A GHG Emissions | | |
|---|--|--------------|
| Direct Emissions | Stationary Emissions | 12,222 |
| | Mobile Emissions | 4,950 |
| | Wastewater: Emissions from Stationary Combustion | 11,008 |
| | Wastewater: Emissions from Nitrification/Denitrification Process | 5,478 |
| | Wastewater: Emissions from Effluent Discharge | 33,665 |
| | Landfill: Fugitive Emissions | 124,558 |
| | Refrigerant Emissions | 126 |
| Indirect Emissions | Purchased Electricity | 32,574 |
| | Natural Gas | 19,626 |
| Other emissions include emissions from employee commuting, employee business travel, and waste disposed of outside the organization boundary. | | Not Included |
| Total | | 244,207 |

A.1 Direct Emissions

Below is the summary of direct GHG emissions:

| Table A.1 - Direct Emissions | |
|--|---------------------|
| Category | MTCO ₂ e |
| Stationary Emissions | 12,222 |
| Mobile Emissions | 4,950 |
| Wastewater: Emissions from Wastewater Stationary Combustion | 11,008 |
| Wastewater: Emissions from Nitrification/Denitrification Process | 5,478 |
| Wastewater: Emissions from Effluent Discharge | 33,665 |
| Landfill Fugitive Emissions | 124,558 |
| Refrigerant Emissions | 126 |
| Total Direct Emissions | 192,007 |

A.1.1. Emissions from Stationary Combustion

This section of the evaluation includes emissions from stationary source combustion that use diesel, renewable diesel, and gasoline. Emissions from permitted portable engines are also included in this section. Emission factors were obtained from the Emission Factors for GHG Inventories included in Appendix A. Equations 6.2, 6.3, and 6.5 of the LGOP were used for these calculations.

| | |
|---|--|
| Equation 6.2 | CO ₂ Emissions from Stationary Combustion (gallons) |
| Fuel CO ₂ Emissions (metric tons) = Fuel Consumed (gallons) × Emission Factor (kg CO ₂ /gallon) ÷ 1,000 (kg/metric ton) | |

| | |
|--|--|
| Equation 6.3 | CH ₄ Emissions from Stationary Combustion (MMBtu) |
| CH ₄ Emissions (metric tons) = Fuel Use (MMBtu) × Emission Factor (kg CH ₄ /MMBtu) ÷ 1,000 (kg/metric ton) | |

| | |
|--|---|
| Equation 6.5 | N ₂ O Emissions from Stationary Combustion (MMBtu) |
| N ₂ O Emissions (metric tons) = Fuel Use (MMBtu) × Emission Factor (kg N ₂ O /MMBtu) ÷ 1,000 (kg/metric ton) | |

| Table A.1.1 - Emissions from Stationary Combustion | | | | | | |
|--|---------|--|--|---|--|---------------------------|
| Global Warming Potential | | | 1 | 28 | 265 | |
| Fuel Type | Gallon | Emission Factors (kg CO ₂ e/Gallon) | CO ₂ Emission Factor (kg CO ₂ /Gallon) | CH ₄ Emission Factor (g CH ₄ /Gallon) | N ₂ O Emission Factor (g N ₂ O/Gallon) | MTCO ₂ e Total |
| Renewable Diesel | 25,293 | 5.02 ¹ | Combined in CO ₂ Equivalent | | | 127 |
| Diesel | 6,907 | | 10.96 | 0.44 | 0.09 | 76 |
| Gasoline | 11,675 | | 8.78 | 0.38 | 0.08 | 103 |
| Sub Total | | | | | | 306 |
| Natural Gas | MMBTU | | kg CO ₂ /MMBTU | g CH ₄ /MMBTU | g N ₂ O /MMBTU | MTCO ₂ e Total |
| JAO | 11,704 | | 53.06 | 1.000 | 0.100 | 622 |
| JWPCP | 210,289 | | 53.06 | 1.000 | 0.100 | 11,169 |
| Palmdale | 334 | | 53.06 | 1.000 | 0.100 | 18 |
| Valencia | 1,078 | | 53.06 | 1.000 | 0.100 | 57 |
| Subtotal | | | | | | 11,866 |
| Propane | SCF | | kg CO ₂ /SCF | g CH ₄ /SCF | g N ₂ O/SCF | MTCO ₂ e Total |
| All Facilities | 319,865 | | 0.15463 | 0.007548 | 0.00151 | 50 |
| Sub Total | | | | | | 50 |
| Total | | | | | | 12,222 |

The entire volume of natural gas usage was included for facilities with natural gas combustion because combustion accounts for most of the usage in those facilities.

¹The emission factor for renewable diesel is included in Appendix B.

A.1.2. Emissions from Mobile Combustion

This section of the evaluation includes emissions from mobile sources such as passenger cars, vans, trucks, and heavy equipment. Equations 7.2, 7.6, and 7.7 of the LGOP were used for these calculations. Emission factors were obtained from the Emission Factors for GHG Inventories included in Appendix B.

| | |
|--|--|
| Equation 7.2 | CO ₂ Emissions from Mobile Combustion |
| Fuel CO ₂ Emissions (metric tons) = Fuel Consumed (gallons) × Emission Factor (kg CO ₂ /gallon) ÷ 1,000 (kg/metric ton) | |

| | |
|---|--|
| Equation 7.6 | CH ₄ Emissions from Mobile Combustion |
| CH ₄ Emissions (metric tons) = Annual Distance (miles) × Emission Factor (g CH ₄ /mile) ÷ 1,000,000 (g/metric ton) | |

| | |
|--|---|
| Equation 7.7 | N ₂ O Emissions from Mobile Combustion |
| N ₂ O Emissions (metric tons) = Annual Distance (miles) × Emission Factor (g N ₂ O/mile) ÷ 1,000,000 (g/metric ton) | |

The table below summarizes the input units used in calculations based on the fuel and mobile unit types.

| Fuel | Mobile Type | CO ₂ e | CO ₂ | CH ₄ | N ₂ O |
|------------------------------|--------------------------|-------------------|---|-----------------|------------------|
| | | Input Unit | Input Unit | Input Unit | Input Unit |
| Renewable Diesel | On-Road Vehicle | Gallon | Not applicable because the emission factor provided by the vendor has already been converted to Carbon Dioxide Equivalent (CO ₂ e) | | |
| | Non-Road Heavy Equipment | Gallon | | | |
| Diesel | On-Road Vehicle | Not Applicable | Gallon | Mileage | Mileage |
| | Non-Road Heavy Equipment | Not Applicable | Gallon | Gallon | Gallon |
| Gasoline | On-Road Vehicle | Not Applicable | Gallon | Mileage | Mileage |
| Compressed Natural Gas (CNG) | On-Road Vehicle | Not Applicable | Cubic Foot | Mileage | Mileage |

| Table A.1.2 - Emissions from Mobile Combustion | | | | | | | |
|--|---------------|-----------|---|---|--|--|---------------------------|
| Global Warming Potential | | | 1 | 28 | 265 | | |
| Fuel Type | Gallon or SCF | Mile | CO ₂ Emission Factor (kg CO ₂ /Gallon or scf) | CH ₄ Emission Factor (g CH ₄ /mile) | N ₂ O Emission Factor (g N ₂ O/mile) | Emission Factors (kg CO ₂ e/Gallon) | MTCO ₂ e Total |
| Renewable Diesel | 326,110 | N/A | Combined in CO ₂ Equivalent | | | 5.02 ¹ | 1,637 |
| Diesel (Heavy/Medium) 1995-2005 | 10,353 | 62,117 | 10.21 | 0.0051 | 0.0048 | | 106 |
| Diesel (Heavy/Medium) 2007-2021 | 34,596 | 207,574 | 10.21 | 0.0095 | 0.0491 | | 356 |
| Gasoline (total) | 289,208 | | 8.78 | | | | 2,539 |
| Passenger Car (2009 -2014) | | 227,715 | | 0.0071 | 0.0046 | | 0.32 |
| Passenger Car (2015) | | 59,919 | | 0.0068 | 0.0042 | | 0.08 |
| Passenger Car (2016) | | 1,785 | | 0.0065 | 0.0038 | | 0.00 |
| Passenger Car (2017) | | 55,294 | | 0.0054 | 0.0018 | | 0.03 |
| Passenger Car (2018 & after) | | 197,939 | | 0.0052 | 0.0016 | | 0.11 |
| Trucks (1999) | | 2,317 | | 0.0333 | 0.0618 | | 0.04 |
| Trucks (2003) | | 24,727 | | 0.0221 | 0.0373 | | 0.26 |
| Trucks (2004) | | 41,617 | | 0.0115 | 0.0088 | | 0.11 |
| Trucks (2005) | | 21,155 | | 0.0105 | 0.0064 | | 0.04 |
| Trucks (2006) | | 99,765 | | 0.0108 | 0.0080 | | 0.24 |
| Trucks (2007) | | 36,429 | | 0.0103 | 0.0061 | | 0.07 |
| Trucks (2008) | | 234,326 | | 0.0095 | 0.0036 | | 0.29 |
| Trucks (2009) | | 144,057 | | 0.0095 | 0.0036 | | 0.18 |
| Trucks (2010) | | 46,221 | | 0.0095 | 0.0035 | | 0.06 |
| Trucks (2011) | | 542,791 | | 0.0096 | 0.0034 | | 0.63 |
| Trucks (2012) | | 291,187 | | 0.0096 | 0.0033 | | 0.33 |
| Trucks (2013) | | 271,531 | | 0.0095 | 0.0033 | | 0.31 |
| Trucks (2014) | | 194,467 | | 0.0095 | 0.0033 | 0.22 | |
| Trucks (2015) | | 462,302 | | 0.0094 | 0.0031 | 0.50 | |
| Trucks (2016) | | 308,598 | | 0.0091 | 0.0029 | 0.32 | |
| Trucks (2017) | | 348,451 | | 0.0084 | 0.0018 | 0.25 | |
| Trucks (2018 and after) | | 1,390,754 | | 0.0081 | 0.0015 | 0.87 | |

| | | | | | | | |
|----------------------------------|-----------|---------|-------|--------|--------|--|--------------|
| Heavy Duty Trucks (1987) | | 460 | | 0.0322 | 0.0015 | | 0.00 |
| Heavy Duty Trucks (2008 & after) | | 23,306 | | 0.0333 | 0.0134 | | 0.10 |
| CNG | 5,399,401 | | 0.054 | | | | 294 |
| CNG Light-Duty Cars | | 86,779 | | 0.0820 | 0.0060 | | 0.34 |
| CNG Light-Duty Trucks | | 368,395 | | 0.1230 | 0.0110 | | 2.34 |
| CNG Heavy-Duty Trucks | | 96,806 | | 3.7000 | 0.0010 | | 10.05 |
| Total | | | | | | | 4,950 |

¹The emission factor for renewable diesel is included in Appendix B.

A.1.3 Wastewater Treatment Plants Direct Emissions

The table below summarizes GHG types and sources that are directly emitted from wastewater treatment processes to the environment according to the LGOP. The first column was added to identify processes that apply to the Districts’ operations.

| Summary of Wastewater Treatment Process and Fugitive Emission Sources | | | | |
|---|--------------------------------------|---|--|----------------|
| Scope | GHG type | GHG source | Data Available | Equation |
| A.1.3.a | Stationary CH ₄ emissions | Incomplete combustion of digester gas at a centralized WWTP with anaerobic digestion of biosolids | Digester gas (ft ³ /day) | Equation 10.1 |
| | | | Fraction of CH ₄ in biogas | |
| | | | Population served | Equation 10.2 |
| Not Applicable | Process CH ₄ emissions | Anaerobic and facultative treatment lagoons | BOD ₅ load (kg BOD ₅ /day) | Equation 10.3 |
| | | | Fraction of overall BOD ₅ removal performance | |
| Not Applicable | Fugitive CH ₄ emissions | Septic systems | BOD ₅ load (kg BOD ₅ /person/day) | Equation 10.5 |
| | | | Population served | Equation 10.6 |
| A.1.3.b | Process N ₂ O emissions | Centralized WWTP with nitrification/denitrification | Population served | Equation 10.7 |
| Not Applicable | Process N ₂ O emissions | Centralized WWTP without nitrification/denitrification | Population served | Equation 10.8 |
| A.1.3.c | Process N ₂ O emissions | Effluent discharge to receiving aquatic environments | N load (kg N/day) | Equation 10.9 |
| | | | Population served | Equation 10.10 |

Below is the summary of GHG emissions for these LGOP Scope sources that are directly emitted from wastewater treatment processes to the environment:

| Table A.1.3 - Wastewater Treatment Plants Direct Emissions | |
|--|-----------------------------|
| CATEGORY | TOTAL (MTCO ₂ e) |
| STATIONARY EMISSIONS | 11,008 |
| PROCESS N ₂ O EMISSION FROM NITRIFICATION/DENITRIFICATION | 5,478 |
| PROCESS N ₂ O EMISSIONS FROM EFFLUENT | 33,665 |
| TOTAL WASTEWATER DIRECT EMISSION | 50,152 |

A.1.3.a Emissions from Wastewater Stationary Combustion

This section includes the calculations of annual CH₄ emissions from the inherent inefficiency of combustion equipment. Equation 10.1 of the LGOP was used to calculate the CH₄ emissions from the incomplete combustion of digester gas.

| | |
|---|--|
| Equation 10.1 | Stationary CH ₄ from Incomplete Combustion of Digester Gas (site-specific digester gas data) |
| Annual CH ₄ emissions (metric tons CO ₂ e) = (Digester Gas x F _{CH₄} x ρ(CH ₄) x (1-DE) x 0.0283 x 365.25 x 10 ⁻⁶) x GWP | |

Where:

| Term | Description | Value |
|----------------------|--|------------------|
| Digester Gas | Measured total standard cubic feet of digester gas combusted | user input |
| F CH ₄ | measured fraction of CH ₄ in biogas | user input |
| ρ (CH ₄) | density of methane at standard conditions [g/m ³] | 662.00 |
| DE | CH ₄ Destruction Efficiency | .99 |
| 0.0283 | conversion from ft ³ to m ³ [m ³ /ft ³] | 0.0283 |
| 365.25 | conversion factor [day/year] | 365.25 |
| 10 ⁻⁶ | conversion from g to metric ton [metric ton/g] | 10 ⁻⁶ |
| GWP | Global Warming Potential | 28 |

Source: EPA *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2007*, Chapter 8, 8-13 (2009).

Below is the summary of the results of annual CH₄ emissions from the incomplete combustion of digester gas:

| Table A.1.3.a Emissions from Wastewater Stationary Combustion | | | | | | |
|---|---------------------|--------------------------|---------------------|------|-----|---|
| | Combusted Gas (SCF) | CH ₄ Fraction | ρ(CH ₄) | DE | GWP | MTCO ₂ e Total (MTCO ₂ e) |
| JWPCP | 3,141,590,585 | 0.61 | 662 | 0.99 | 28 | 10,097 |
| Lancaster | 92,279,508 | 0.61 | 662 | 0.99 | 28 | 297 |
| Palmdale | 54,687,225 | 0.61 | 662 | 0.99 | 28 | 176 |
| Valencia WRP | 136,549,000 | 0.61 | 662 | 0.99 | 28 | 439 |
| Total | | | | | | 11,008 |

A.1.3.b Emissions from Nitrification/Denitrification Process

This section includes the calculations of annual N₂O emissions from the nitrification and denitrification process used in wastewater treatment. Except for the industrial/commercial factor (F_{ind-com}), this GHG evaluation utilized values specified in the LGOP. The F_{ind-com} factors used in this evaluation were obtained from the 2020 Pretreatment Program Annual Report. Equation 10.7 of the LGOP was used to calculate N₂O emissions from the wastewater treatment processes.

| Equation 10.7 Process N ₂ O Emissions from WWTP with Nitrification/Denitrification | | |
|--|---|--|
| Annual N ₂ O emissions (metric tons CO ₂ e) = ((P total x F _{ind-com}) x EF nit/den x 10 ⁻⁶) x GWP | | |
| Where: | | |
| Term | Description | Value |
| P total | the total population that is served by the centralized WWTP adjusted for industrial discharge, if applicable [person] | User input |
| F _{ind-com} | the factor for industrial and commercial co-discharge waste into the sewer system | Varies, used value from the 2020 Pretreatment Report |
| EF nit/den | emission factor for a WWTP with nitrification/denitrification [g N ₂ O/person/year] | 7 |
| 10 ⁶ | conversion from g to metric ton [metric ton/g] | 10 ⁶ |
| GWP | N ₂ O Global Warming Potential | 265 |
| Source: EPA <i>Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2007</i> , Chapter 8, 8-13 (2009). | | |

The results of N₂O emissions from the nitrification and denitrification are included in Table A.1.3.a below:

| Table A.1.3.b Emissions from Nitrification/Denitrification Process | | | | | | |
|--|-------------------|---------------------|--------------------|-------------------|-----|---------------------------|
| Facility | Population Served | F Industrial Factor | EF Emission Factor | Conversion Factor | GWP | MTCO ₂ e Total |
| Long Beach WRP | 226,811 | 1.05 | 7.00 | 1.00E-06 | 265 | 442 |
| Los Coyotes WRP | 359,001 | 1.13 | 7.00 | 1.00E-06 | 265 | 753 |
| Whittier Narrows WRP | 406,051 | 1.11 | 7.00 | 1.00E-06 | 265 | 836 |
| San Jose Creek WRP | 1,069,856 | 1.07 | 7.00 | 1.00E-06 | 265 | 2,124 |
| Pomona WRP | 79,262 | 1.04 | 7.00 | 1.00E-06 | 265 | 153 |
| Saugus WRP | 74,351 | 1.01 | 7.00 | 1.00E-06 | 265 | 139 |
| Lancaster WRP | 128,204 | 1.06 | 7.00 | 1.00E-06 | 265 | 252 |
| Palmdale WRP | 196,826 | 1.01 | 7.00 | 1.00E-06 | 265 | 369 |
| Valencia WRP | 201,619 | 1.10 | 7.00 | 1.00E-06 | 265 | 411 |
| Total | | | | | | 5,478 |

A.1.3.c Emissions from Effluent Discharge

This section includes the calculations of annual N₂O emissions from effluent discharged into rivers and estuaries. This GHG evaluation utilized all values that are specified in the LGOP. It should be noted that the LGOP does not include an emission factor for ocean discharge; therefore, the JWPCP results may be overestimated because there is less biological conversion of nitrogen to N₂O in the ocean.

| | | |
|--|--|------------------|
| Equation 10.9 | Process N ₂ O Emissions from Effluent Discharge (site-specific N load data) | |
| Annual N ₂ O emissions (metric tons CO ₂ e) = (N Load x EF effluent x 365.25 x 10 ⁻³ x 44/28) x GWP | | |
| Where: | | |
| Term | Description | Value |
| N Load | = measured average total nitrogen discharged [kg N/day] | user input |
| EF effluent | = emission factor [kg N ₂ O-N/kg sewage-N produced] | 0.005 |
| 365.25 | = conversion factor [day/year] | 365.25 |
| 10 ⁻³ | = conversion from kg to metric ton [metric ton/kg] | 10 ⁻³ |
| 44/28 | = molecular weight ratio of N ₂ O to N ₂ | 1.57 |
| GWP | = Global Warming Potential | 265 |
| Source: EPA <i>Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2007</i> , Chapter 8, 8-13 (2009). | | |

Below is the summary of the results of annual N₂O emissions from effluent that discharged into rivers and estuaries, apart from JWPCP which discharges to the Pacific Ocean:

| Table A.1.3.c.1 Emissions from Effluent Discharge | | | | | | |
|---|------------------------|-------------------------|-------------------|---|-----|---|
| Facility | Average Total Nitrogen | Average Effluent* (MGD) | N load (kg N/day) | N ₂ O to N ₂ Conversion | GWP | Annual N ₂ O Emissions (MTCO ₂ e) |
| JWPCP | 43.93 | 242.28 | 40,232 | 1.57 | 265 | 30,569 |
| Long Beach WRP | 9.87 | 12.67 | 473 | 1.57 | 265 | 359 |
| Los Coyotes WRP | 8.11 | 17.52 | 537 | 1.57 | 265 | 408 |
| San Jose Creek East WRP | 7.05 | 35.71 | 952 | 1.57 | 265 | 723 |
| San Jose Creek West WRP | 7.09 | 26.9 | 721 | 1.57 | 265 | 548 |
| Pomona WRP | 10.10 | 5.45 | 208 | 1.57 | 265 | 158 |
| Saugus WRP | 6.61 | 4.85 | 121 | 1.57 | 265 | 92 |
| Valencia WRP | 6.34 | 13.55 | 325 | 1.57 | 265 | 247 |
| Lancaster WRP | 5.45 | 13.9 | 286 | 1.57 | 265 | 218 |
| Palmdale WRP | 6.40 | 8.33 | 202 | 1.57 | 265 | 153 |
| La Canada WRP | 17.95 | 0.066 | 4 | 1.57 | 265 | 3 |
| Whittier Narrows WRP | 7.90 | 8.27 | 247 | 1.57 | 265 | 188 |
| Total | | | | | | 33,665 |

* Annual flows are still under review and subject to change.

A.1.4. Landfill Fugitive Emissions

The LGOP specified equation 9.1 to calculate the direct emissions from landfills with comprehensive landfill gas collection systems. Except for the collection efficiency (CE) factor, this GHG evaluation utilized values specified in the LGOP. Actual CE factors, based on research performed by the Districts, were used in place of the 0.75 CE factor specified in the LGOP. Since the actual CE factors are based upon emissions above the soil cover, the oxidation factor (OX) was omitted from these calculations. Collection efficiency factors used in this section are included in Appendix C.

| | |
|--|---|
| Equation 9.1 | Landfills with Comprehensive LFG Collection Systems |
| $\text{CH}_4 \text{ emitted (metric tons CO}_2\text{e)} = \text{LFG collected} \times \text{CH}_4\% \times \{ (1 - \text{DE}) + [((1 - \text{CE}) / \text{CE}) \times (1 - \text{OX})] \} \times \text{unit conversion} \times \text{GWP}$ | |

Where:

| Term | Description | Value |
|-------------------|---|--|
| LFG collected | = Annual LFG collected by the collection system (MMSCF) | user input |
| CH ₄ % | = Fraction of CH ₄ in LFG | 0.5, if no facility-specific value is available |
| DE | = CH ₄ Destruction Efficiency, based on the type of combustion/flare system. | .991 |
| CE | = Collection Efficiency | Varies, used actual CE factors |
| OX | = Oxidation Factor | LGOP specify 0.10 but omitted in this evaluation |
| Unit conversion | = Convert million standard cubic feet of CH ₄ to metric tons of CH ₄ (volume units to mass units) | 19.125 |
| GWP | = Global Warming Potential to convert metric tons of methane into metric tons of CO ₂ equivalents (CO ₂ e). | 28 |

| Facility | Collected Landfill Gas (MMSCF) | CH ₄ % | DE | CE | OX | Unit Conversion | GWP | Landfill Direct Emission (MTCO ₂ e) |
|-------------------------|--------------------------------|-------------------|------|-------|----|-----------------|-----|--|
| Puente Hills Landfill | 7,459 | 28.29 | 0.99 | 0.950 | 0 | 19.125 | 28 | 70,775 |
| Calabasas Landfill | 1,967 | 27.53 | 0.99 | 0.918 | 0 | 19.125 | 28 | 28,800 |
| Scholl Canyon Landfill | 3,135 | 33.99 | 0.99 | 0.989 | 0 | 19.125 | 28 | 12,051 |
| Spadra Landfill | 1,690 | 22.69 | 0.99 | 0.972 | 0 | 19.125 | 28 | 7,969 |
| Palos Verdes Landfill | 2,323 | 6.88 | 0.99 | 0.957 | 0 | 19.125 | 28 | 4,699 |
| Mission Canyon Landfill | 41 | 11.67 | 0.99 | 0.915 | 0 | 19.125 | 28 | 264 |
| Total | | | | | | | | 124,558 |

A.1.5 Refrigerant Emissions

Per the refrigerant leak checks performed in 2021, below are the emissions from refrigerant leaks. The refrigerant leak testing results are included in Appendix D.

| Table A.1.5 - Refrigerant Emissions | | | | |
|-------------------------------------|-------------------|---------------|-------|--------------------------------|
| Facility | Refrigerant Blend | Quantity (lb) | GWP* | Emission (MTCO ₂ e) |
| Tulare Lake Compost | R-410B | 27 | 2,229 | 27.30 |
| Palmdale WRP | R-410A | 23.5 | 2,088 | 22.26 |
| Lancaster WRP | R-410A | 80.5 | 2,088 | 76.24 |
| Total | | | | 125.80 |

*From 100-year GWPs from IPCC Fourth Assessment Report (AR4), 2007.

A.2 Indirect Emissions

According to the LGOP, indirect emissions are emissions from purchased energy. Only two indirect emissions sources apply to the Districts’ operations: purchased electricity and natural gas for heating. Calculations for GHG emissions and emission factors are included in Appendix E. The following equations were used to determine the indirect emissions from purchased electricity and natural gas:

A.2.1 Electricity

| | |
|---|--|
| Equation 6.10 | Indirect Emissions from Electricity Use (mt) |
| $CO_2 \text{ Emissions} = \text{Electricity Use (MWh)} \times \text{Emission Factor (lbs. } CO_2/\text{MWh)} \div 2,204.62 \text{ (lbs./mt)}$ | |
| $CH_4 \text{ Emissions} = \text{Electricity Use (MWh)} \times \text{Emission Factor (lbs. } CH_4/\text{MWh)} \div 2,204.62 \text{ (lbs./mt)}$ | |
| $N_2O \text{ Emissions} = \text{Electricity Use (MWh)} \times \text{Emission Factor (lbs. } N_2O/\text{MWh)} \div 2,204.62 \text{ (lbs./mt)}$ | |

A.2.2 Natural Gas

| | |
|---|---|
| Equation 6.16 | Converting Steam or Heat Consumption from Therms to MMBtu |
| $\text{Energy Consumption (MMBtu)} = \text{Energy Consumption (Therms)} \times 0.1 \text{ (MMBtu/Therm)}$ | |

| | |
|---|--|
| Equation 6.20 | Emissions from Imported Steam or Heat (mt) |
| $\text{Total } CO_2 \text{ Emissions} = \text{Energy Consumed (MMBtu)} \times \text{Emission Factor (kg } CO_2 / \text{ MMBtu)} \div 1,000 \text{ (kg/mt)}$ | |
| $\text{Total } CH_4 \text{ Emissions} = \text{Energy Consumed (MMBtu)} \times \text{Emission Factor (kg } CH_4 / \text{ MMBtu)} \div 1,000 \text{ (kg/mt)}$ | |
| $\text{Total } N_2O \text{ Emissions} = \text{Energy Consumed (MMBtu)} \times \text{Emission Factor (kg } N_2O / \text{ MMBtu)} \div 1,000 \text{ (kg/mt)}$ | |

Below is the summary of the 2021 indirect emissions:

| Table A.2 Indirect Emissions | | | | |
|------------------------------|-------------------|--|---|---------------------------|
| Global Warming | 1 | 28 | 265 | |
| Emission Factors | 496.50 | 0.0340 | 0.0040 | |
| Purchased Electricity | MTCO ₂ | MTCH ₄ as CO ₂ e | MTN ₂ O as CO ₂ e | MTCO ₂ e Total |
| 144,056 | 32,443 | 62.21 | 69.26 | 32,574 |
| Emission Factors | 53.06 | 0.0010 | 0.0001 | |
| Purchased Natural Gas | MTCO ₂ | MTCH ₄ as CO ₂ e | MTN ₂ O as CO ₂ e | MTCO ₂ e Total |
| 369,867 | 19,625 | 0.55 | 0.000015 | 19,626 |
| Total | | | | 52,200 |

B. 2021 GHG Reductions

This section of the report includes results of GHG reductions from programs operated by the Districts. Table 1 displays a summary of the GHG reductions achieved by each program.

| Table B – GHG Reductions and Equivalent Units | |
|---|-------------------------------|
| Programs | Reduction MTCO ₂ e |
| Biogas-to-Electricity | 189,716 |
| Food Waste Diversion | 41,944 |
| Water Recycling | 52,214 |
| Tulare Lake Compost | 2,439 |
| Biogas-to-Vehicle Fuel | 1,136 |
| 2021 Total Reduction | 287,449 |

B.1 Biogas-to-Electricity

The Districts operate three biogas-to-electricity facilities: the Calabasas Landfill Gas-to-Energy (CALF), the Puente Hills Gas-to-Energy Facility (PERG), and the JWPCP Total Energy Facility (TEF). The calculations shown in the table below were based on the EPA’s GHG Equivalency Calculator. The emission factor used in this section was obtained from the EPA’s 2019 Avoided Emissions and Generation Tool (AVERT) included in Appendix F. The quantity of net electricity generated at each facility was used to determine the amount of GHG reduction resulting from these renewable energy facilities.

| Table B.1 – Gas-to-Electricity | | | |
|--|----------------------------|--------------------------------|--|
| Program | Electricity Generated (MW) | AVERT Emission Factor (lb/MWh) | Offset of Carbon Dioxide (MTCO ₂ E) |
| JWPCP | 20 | 1,061 | 84,318 |
| Puente Hills Energy Recovery from Gas Facility | 21 | 1,061 | 88,534 |
| Calabasas Turbine Facility | 4 | 1,061 | 16,864 |
| GHG Benefit | | | 189,716 |

B.2 Food Waste Diversion

The Districts divert food waste from landfills and direct this resource to the Joint Water Pollution Control Plant (JWPCP) for anaerobic digestion. Food waste enters the Districts’ anaerobic digestion stream either directly from waste haulers or through the diversion process at the Puente Hills Materials Recovery Facility (PHMRF). The EPA’s Waste Reduction Model (WARM) was used to evaluate the GHG reductions from food waste diversion. The table below shows the results from the WARM evaluation. The WARM worksheet and reference pages are included in Appendix G.

| Table B.2 Food Waste Management | |
|---------------------------------|-----------------------------------|
| Food Waste (Ton) | GHG Benefit (MTCO ₂ e) |
| 77,794 | 41,944 |

B.3 Water Recycling

This portion of the evaluation included the GHG reduction from the beneficial use of recycled water. The GHG reductions are shown in the table below and were determined by comparing the energy intensity of imported water to the energy intensity of recycled water. The GHG calculations used in this section were based on the method used in the Role of Recycled Water in Energy Efficiency and Greenhouse Gas Reduction (2008) published by the California Sustainability Alliance. The energy intensity includes the energy needed for pumping, treatment, and water delivery. Reference pages for the calculations are included in Appendix H.

| Table B.3 - GHG Reductions from Water Recycling | | | | |
|---|--------------------|-----------------------------------|--|------------------------------------|
| | Water Volume (AFY) | Estimated Energy Usage (kWh/AF) * | Emission Factor (MTCO ₂ e /MWH)** | GHG Emission (MTCO ₂ e) |
| Recycled Water | 112,700 | 600 | 0.226 | 15,282 |
| Total Emission | | | | 15,282 |
| Colorado River Aqueduct Imported Water (Baseline) | 56,350 | 2,000 | 0.226 | 25,470 |
| State Water Project Imported Water (Baseline) | 56,350 | 3,300 | 0.226 | 42,026 |
| Total Baseline | | | | 67,496 |
| GHG Benefit | | | | 52,214 |

*Estimated energy usages are from the Role of Recycled Water in Energy Efficiency and Greenhouse Gas Reduction Study and the updated Estimation of Greenhouse Gas Production from Advanced Treatment and Pumping of JWPCP Effluent memo.

**The emission factor presented in this column was based on the emission rating of 498.7 lb of CO₂e per MWh, which equals 0.226 metric tons of CO₂e per MWh. The emission rating was obtained from the 2018 eGRID summary published by the EPA. The emission rating used in this calculation was selected because it represents the average emission output in California. The conversion factor from the Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources published by the EPA was not selected because it represents the highest nationwide emission rating rather than the regional average emission rating.

B.4 Tulare Lake Compost (TLC)

This portion of the evaluation examined the GHG reductions from biosolids management at TLC. Biosolids generated by the Districts were managed through Aerated Static Pile (ASP) composting. The Biosolids Emissions Assessment Model (BEAM) was used to estimate the GHG reduction from the process. BEAM was prepared by SYLVIS for the Canadian Council of Ministers of the Environment. The GHG reduction was from the offset of fertilizer that would otherwise be used on the land. The GHG reduction is shown below, and the BEAM worksheets are included in Appendix I.

| Table B.4 Biosolids Management | | |
|--------------------------------|----------------|------------------------------------|
| Facility | Quantity (Ton) | GHG Emission (MTCO ₂ e) |
| TLC | 40,613 | 2,439 |

B.5 Biogas-to-Vehicle Fuel

This portion of the evaluation included the GHG reduction from the Biogas-to-Vehicle Fuel project. The GHG reductions are shown in the table below and were determined by comparing the carbon intensity of renewable natural gas (RNG) produced by the project with that of traditional diesel. Carbon intensities used in this evaluation are included in Appendix J.

| Table B.5 Biogas-to-Vehicle Fuel Project | | | |
|--|---------------|--|---------------------------|
| Fuel Type | GGE or Gallon | Carbon Intensity (kg CO ₂ e/Gallon) | MTCO ₂ e Total |
| RNG | 102,172 | 2.59 | 265 |
| Diesel (Baseline) | 102,172 | 13.72 | 1,401 |
| GHG Reduction | | | 1,136 |

Appendix A: Stationary Emissions



Emission Factors for Greenhouse Gas Inventories

Last Modified: 1 April 2021

Red text indicates an update from the 2020 version of this document.

Typically, greenhouse gas emissions are reported in units of carbon dioxide equivalent (CO₂e). Gases are converted to CO₂e by multiplying by their global warming potential (GWP). The emission factors listed in this document have not been converted to CO₂e. To do so, multiply the emissions by the corresponding GWP listed in the table below.

| Gas | 100-Year GWP |
|------------------|--------------|
| CH ₄ | 25 |
| N ₂ O | 298 |

Source: Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report (AR4), 2007. See the source note to Table 11 for further explanation.

Table 1 Stationary Combustion

| Fuel Type | Heat Content (HHV) | CO ₂ Factor | CH ₄ Factor | N ₂ O Factor | CO ₂ Factor | CH ₄ Factor | N ₂ O Factor |
|---|---------------------|------------------------------|-----------------------------|------------------------------|----------------------------------|---------------------------------|----------------------------------|
| | mmBtu per short ton | kg CO ₂ per mmBtu | g CH ₄ per mmBtu | g N ₂ O per mmBtu | kg CO ₂ per short ton | g CH ₄ per short ton | g N ₂ O per short ton |
| Coal and Coke | | | | | | | |
| Anthracite Coal | 25.09 | 103.69 | 11 | 1.6 | 2,602 | 276 | 40 |
| Bituminous Coal | 24.93 | 93.28 | 11 | 1.6 | 2,325 | 274 | 40 |
| Sub-bituminous Coal | 17.25 | 97.17 | 11 | 1.6 | 1,676 | 190 | 28 |
| Lignite Coal | 14.21 | 97.72 | 11 | 1.6 | 1,389 | 156 | 23 |
| Mixed (Commercial Sector) | 21.39 | 94.27 | 11 | 1.6 | 2,016 | 235 | 34 |
| Mixed (Electric Power Sector) | 19.73 | 95.52 | 11 | 1.6 | 1,885 | 217 | 32 |
| Mixed (Industrial Coking) | 26.29 | 93.90 | 11 | 1.6 | 2,468 | 299 | 42 |
| Mixed (Industrial Sector) | 22.35 | 94.67 | 11 | 1.6 | 2,116 | 246 | 36 |
| Coal Coke | 24.80 | 113.67 | 11 | 1.6 | 2,819 | 273 | 40 |
| Other Fuels - Solid | | | | | | | |
| Municipal Solid Waste | 9.95 | 90.70 | 32 | 4.2 | 902 | 318 | 42 |
| Petroleum Coke (Solid) | 30.00 | 102.41 | 32 | 4.2 | 3,072 | 960 | 126 |
| Plastics | 38.00 | 75.00 | 32 | 4.2 | 2,850 | 1,216 | 160 |
| Tires | 28.00 | 85.97 | 32 | 4.2 | 2,407 | 896 | 118 |
| Biomass Fuels - Solid | | | | | | | |
| Agricultural Byproducts | 8.25 | 118.17 | 32 | 4.2 | 975 | 264 | 35 |
| Peat | 8.00 | 111.84 | 32 | 4.2 | 895 | 256 | 34 |
| Solid Byproducts | 10.39 | 105.51 | 32 | 4.2 | 1,096 | 332 | 44 |
| Wood and Wood Residuals | 17.48 | 93.80 | 7.2 | 3.6 | 1,640 | 126 | 63 |
| Natural Gas | | | | | | | |
| Natural Gas | 0.001026 | 53.06 | 4.0 | 0.10 | 0.05444 | 0.00103 | 0.00010 |
| Other Fuels - Gaseous | | | | | | | |
| Blast Furnace Gas | 0.000092 | 274.32 | 0.0224 | 0.10 | 0.02524 | 0.000002 | 0.000009 |
| Coke Oven Gas | 0.000599 | 46.85 | 0.48 | 0.10 | 0.02806 | 0.000288 | 0.000060 |
| Fuel Gas | 0.001388 | 59.00 | 3.0 | 0.60 | 0.08189 | 0.004164 | 0.000833 |
| Propane Gas | 0.002516 | 81.46 | 3.0 | 0.60 | 0.15463 | 0.007548 | 0.001510 |
| Biomass Fuels - Gaseous | | | | | | | |
| Landfill Gas | 0.000485 | 52.07 | 3.2 | 0.63 | 0.025254 | 0.001552 | 0.000306 |
| Other Biomass Gases | 0.000655 | 52.07 | 3.2 | 0.63 | 0.034106 | 0.002096 | 0.000413 |
| Petroleum Products | | | | | | | |
| Asphalt and Road Oil | 0.158 | 75.36 | 3.0 | 0.60 | 11.91 | 0.47 | 0.09 |
| Aviation Gasoline | 0.120 | 69.25 | 3.0 | 0.60 | 8.31 | 0.36 | 0.07 |
| Butane | 0.103 | 64.77 | 3.0 | 0.60 | 6.67 | 0.31 | 0.06 |
| Butylene | 0.105 | 68.72 | 3.0 | 0.60 | 7.22 | 0.32 | 0.06 |
| Crude Oil | 0.138 | 74.54 | 3.0 | 0.60 | 10.29 | 0.41 | 0.08 |
| Distillate Fuel Oil No. 1 | 0.139 | 73.25 | 3.0 | 0.60 | 10.18 | 0.42 | 0.08 |
| Distillate Fuel Oil No. 2 | 0.138 | 73.96 | 3.0 | 0.60 | 10.21 | 0.41 | 0.08 |
| Distillate Fuel Oil No. 4 | 0.146 | 75.04 | 3.0 | 0.60 | 10.96 | 0.44 | 0.09 |
| Ethane | 0.088 | 59.60 | 3.0 | 0.60 | 4.05 | 0.20 | 0.04 |
| Ethylene | 0.058 | 65.96 | 3.0 | 0.60 | 3.83 | 0.17 | 0.03 |
| Heavy Gas Oils | 0.148 | 74.92 | 3.0 | 0.60 | 11.09 | 0.44 | 0.09 |
| Isobutane | 0.099 | 64.94 | 3.0 | 0.60 | 6.43 | 0.30 | 0.06 |
| Isobutylene | 0.103 | 68.86 | 3.0 | 0.60 | 7.09 | 0.31 | 0.06 |
| Kerosene | 0.135 | 75.20 | 3.0 | 0.60 | 10.15 | 0.41 | 0.08 |
| Kerosene-Type Jet Fuel | 0.135 | 72.22 | 3.0 | 0.60 | 9.75 | 0.41 | 0.08 |
| Liquefied Petroleum Gases (LPG) | 0.092 | 61.71 | 3.0 | 0.60 | 5.68 | 0.28 | 0.06 |
| Lubricants | 0.144 | 74.27 | 3.0 | 0.60 | 10.69 | 0.43 | 0.09 |
| Motor Gasoline | 0.125 | 70.22 | 3.0 | 0.60 | 8.78 | 0.38 | 0.08 |
| Naphtha (<401 deg F) | 0.125 | 68.02 | 3.0 | 0.60 | 8.50 | 0.38 | 0.08 |
| Natural Gasoline | 0.110 | 68.88 | 3.0 | 0.60 | 7.36 | 0.33 | 0.07 |
| Other Oil (>401 deg F) | 0.139 | 76.22 | 3.0 | 0.60 | 10.59 | 0.42 | 0.08 |
| Pentanes Plus | 0.110 | 70.02 | 3.0 | 0.60 | 7.70 | 0.33 | 0.07 |
| Petrochemical Feedstocks | 0.125 | 71.02 | 3.0 | 0.60 | 8.88 | 0.38 | 0.08 |
| Propane | 0.091 | 69.87 | 3.0 | 0.60 | 5.72 | 0.27 | 0.05 |
| Propylene | 0.091 | 67.77 | 3.0 | 0.60 | 6.17 | 0.27 | 0.05 |
| Residual Fuel Oil No. 5 | 0.140 | 72.93 | 3.0 | 0.60 | 10.21 | 0.42 | 0.08 |
| Residual Fuel Oil No. 6 | 0.150 | 75.10 | 3.0 | 0.60 | 11.27 | 0.45 | 0.09 |
| Special Naphtha | 0.125 | 72.34 | 3.0 | 0.60 | 9.04 | 0.38 | 0.08 |
| Unfinished Oils | 0.139 | 74.54 | 3.0 | 0.60 | 10.36 | 0.42 | 0.08 |
| Used Oil | 0.138 | 74.00 | 3.0 | 0.60 | 10.21 | 0.41 | 0.08 |
| Biomass Fuels - Liquid | | | | | | | |
| Biodiesel (100%) | 0.129 | 73.84 | 1.1 | 0.11 | 9.45 | 0.14 | 0.01 |
| Ethanol (100%) | 0.084 | 68.44 | 1.1 | 0.11 | 5.75 | 0.09 | 0.01 |
| Rendered Animal Fat | 0.125 | 71.06 | 1.1 | 0.11 | 8.88 | 0.14 | 0.01 |
| Vegetable Oil | 0.120 | 81.55 | 1.1 | 0.11 | 9.79 | 0.13 | 0.01 |
| Biomass Fuels - Kraft Pulp Lignin, by Wood Furnish | | | | | | | |
| North American Softwood | | 94.4 | 1.9 | 0.42 | | | |
| North American Hardwood | | 93.7 | 1.9 | 0.42 | | | |
| Bagasse | | 95.5 | 1.9 | 0.42 | | | |
| Bamboo | | 93.7 | 1.9 | 0.42 | | | |
| Straw | | 95.1 | 1.9 | 0.42 | | | |

Source:

Federal Register EPA; 40 CFR Part 98; e-CFR, (see link below), Table C-1, Table C-2 (as amended at 81 FR 89252, Dec. 9, 2016), Table AA-1 (78 FR 71965, Nov. 29, 2013).

<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-F/part-98/subpart-F.1/section-98.23>

Note: Emission factors are per unit of heat content using higher heating values (HHV). If heat content is available from the fuel supplier, it is preferable to use that value. If not, default heat contents are provided.

Appendix B: Mobile Emissions

T2N-1290

| | | |
|-----------------------|-------------------|---|
| Deemed Complete: | December 14, 2018 | Staff Summary Tier 2 Method 2B Pathway AltAir Paramount LLC, Paramount, California North American Tallow to Renewable Diesel Pathway |
| Posted for Comment: | December 31, 2018 | |
| Certified and Posted: | January 16, 2019 | |
| CI Effective: | October 1, 2018 | |
| Fuel Pathway Code: | RDT209 | |

Pathway Summary

AltAir Paramount (AltAir) LLC operates a Renewable Diesel (RD) plant in Paramount, California. This plant produces RD and renewable naphtha (RN) using a mixture of animal tallow and small quantities of other non-edible vegetable oils. The feedstocks are processed in AltAir’s hydro-treating unit to produce RD and RN with renewable jet fuel and renewable propane as co-products. The renewable propane is used on-site as process fuel and small amounts are used in a process burner.

Because AltAir does not have access to a hydrogen plant to pipe in gaseous hydrogen, AltAir purchases liquefied hydrogen which is then transported by truck to their facility. AltAir has applied for a provisional Tier 2 Method 2B RD pathway using North American tallow as feedstock.

Carbon Intensity of Tallow to RD Pathway

The following table lists the proposed CI for this pathway.

Proposed Pathway CI

| Fuel | Pathway FPC | Pathway Description | Carbon Intensity (gCO ₂ e/MJ) | | |
|------------------------------|-------------|--|--|-------------------|-------|
| | | | Direct Emissions | Indirect Land Use | Total |
| Renewable Diesel from Tallow | RDT209 | Tier 2 Method 2B Pathway: Renewable Diesel produced from North American Tallow. Fuel produced in Paramount, California (Provisional) | 38.75 | 0 | 38.75 |

Operating Conditions

Operations at the plant will be subject to the following conditions designed to ensure that the CI of the RD produced at the AltAir plant will remain at or below the value appearing in the above table for all volumes of RD produced using this feedstock and sold in California:

1. Except for periods of abnormal operations, such as planned maintenance or unpredictable, unavoidable, and uncontrollable force majeure events, the CI value specified in the application shall not be exceeded.
2. The commingled feedstock accounting method will be used to determine the CIs of the mixed feedstock. Producers and regulated parties should use this approach to calculate the volumes based on weighted averages of renewable diesel associated with each feedstock present in the finished fuel storage tank at any given time. Producers should be able to provide records that unequivocally associate specific quantities of feedstock with specific volumes of fuel produced. As volumes are added to and withdrawn from the tank, the volume of each feedstock-related CI will be adjusted to account for those additions and withdrawals. Commingled feedstock CI accounts for mixed-feedstocks must be directly determined over an accounting period of no more than a calendar quarter. That is, all volumes of fuel produced must be associated with a specific feedstock within a calendar quarter. Gallons will be associated with feedstock based on the accepted yields for each fuel.
3. Because this pathway is classified as provisional, AltAir must submit two years of quarterly operating data for this plant that is indicative of long-term stable operation. The data must be

submitted every quarter until CARB receives two full years of operating data. Adjustments related to provisional CIs are subject to section 94888(d)(2).

Staff Analysis and Recommendations


Staff has reviewed the AltAir application for certification of Renewable Diesel produced from tallow and finds the following:

- Staff has replicated using the modified version of the CA-GREET 2.0 Tier 2 model with reasonable accuracy the carbon intensity calculations provided by the applicant. Staff has made this determination based upon the material and energy use information, design considerations, process yields, and other input parameters furnished by the applicant.
- On the basis of these findings, CARB staff recommends that the AltAir application for Method 2B LCFS pathway stated in above table be certified, subject to the operating conditions set forth in this document.

U.S. Department of Energy - Energy Efficiency and Renewable Energy
 Alternative Fuels Data Center

Alternative Fuel Tax

The excise tax imposed on compressed natural gas (CNG), liquefied natural gas (LNG), and propane used to operate a vehicle can be paid through an annual flat rate sticker tax based on the following vehicle weights:



(mailto:technicalresponse@icf.com?subject=Laws and Incentives Inquiry, Alternative Fuel Tax&body=Note: The Technical Response Service (TRS) representatives are seasoned experts who can help you find answers to technical questions about alternative fuels, fuel economy improvements, idle-reduction measures, and advanced vehicles. The TRS can answer questions about laws and incentives but is not involved with enacting or passing any federal or state laws or incentives.)

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| Unladen Weight | Fee |
|---|-------|
| All passenger cars and other vehicles 4,000 pounds (lbs.) or less | \$36 |
| More than 4,000 lbs. but less than 8,001 lbs. | \$72 |
| More than 8,000 lbs. but less than 12,001 lbs. | \$120 |
| 12,001 lbs. or more | \$168 |

Alternatively, owners and operators may pay an excise tax on CNG of \$0.0887 per gasoline gallon equivalent (GGE) measured at standard pressure and temperature, \$0.1017 for each diesel gallon equivalent (DGE) of LNG, and \$0.06 per gallon of propane. One GGE is equal to **126.67 cubic feet** or 5.66 lbs. of CNG and one DGE is equal to 6.06 lbs. of LNG. The excise tax on ethanol and methanol fuel blends containing up to 15% gasoline or diesel fuel is one-half the tax on gasoline and diesel prescribed by California Revenue and Taxation Code (<https://leginfo.ca.gov/faces/home.xhtml>) section 8651.

(Reference [California Revenue and Taxation Code](https://leginfo.ca.gov/faces/home.xhtml) (<https://leginfo.ca.gov/faces/home.xhtml>) 8651-8651.8, and [California Business and Professions Code](https://leginfo.ca.gov/faces/home.xhtml) (<https://leginfo.ca.gov/faces/home.xhtml>), 13404 and 13470)

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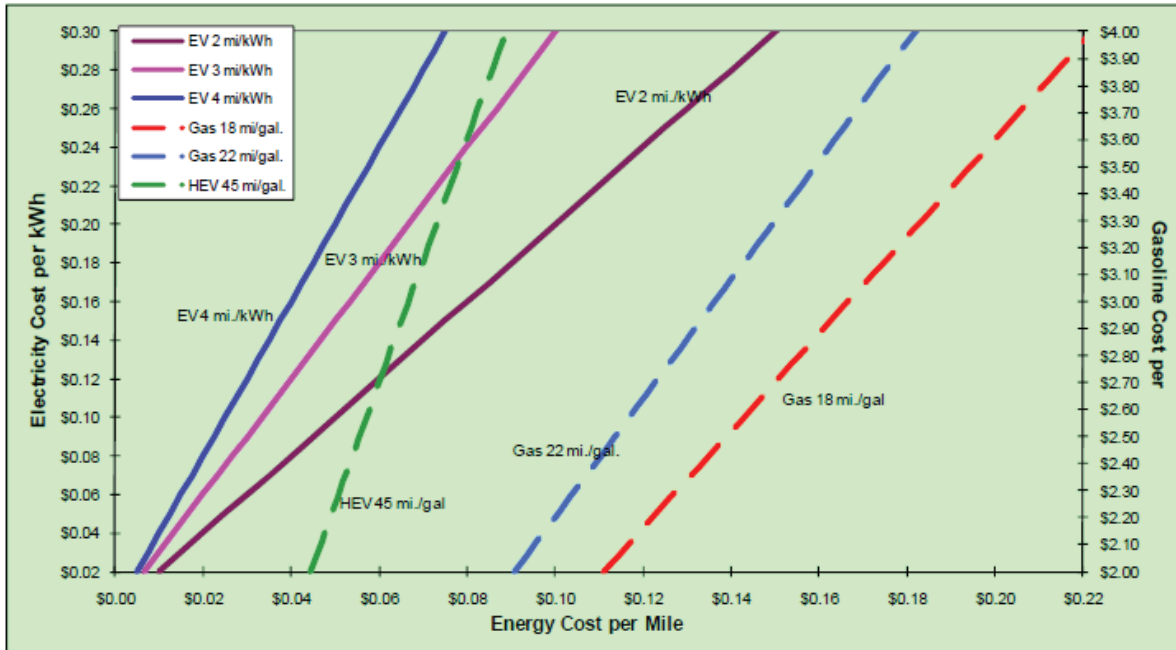
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Comparing Energy Costs per Mile for Electric and Gasoline-Fueled Vehicles

The fuel cost of driving an electric vehicle depends on the cost of electricity per kilowatt-hour (kWh) and the energy efficiency of the vehicle. For example, to determine the energy cost per mile of an electric vehicle, select the location on the left axis (Electricity Cost per kWh) at 10 cents in the graph below. Draw a horizontal line to the right until you bisect the EV 3 mi/kWh line. Now draw a vertical line down until you bisect the bottom axis (Energy Cost per Mile). This tells you that the fuel for an electric vehicle with an energy efficiency of 3 miles per kWh costs about 3.3 cents per mile when electricity costs 10 cents per kWh.



The national average cost for electricity in the U.S. is about 10 cents per kWh, while the average residential rate is about 11.7 cents per kWh. Some electric utilities have historically had electric vehicle charging rates that vary by time of use, day, and season. In the past, these rates have ranged from 3 cents to as high as 50 cents per kWh. Older electric vehicles have energy efficiencies of about 2 miles per kWh. Some electric vehicles, such as the EV1 from General Motors, had energy efficiencies of over 6 miles per kWh under some testing.

To determine the energy cost per mile of a gasoline vehicle, pick the location on the right axis (Gasoline Cost per gallon) at \$3.50. Draw a horizontal line to the left until you bisect the Gas 22 mi/gal line. Now draw a vertical line down until you bisect the bottom axis (Energy Cost per Mile). This tells you that the fuel for a gasoline vehicle with an energy efficiency of 22 miles per gallon costs about 15.9 cents per mile when gasoline costs \$3.50 per gallon. The mileage for commercial fleet vehicles such as light-duty pickups ranges from below 17 miles per gallon to generally about 22 miles per gallon.

The energy cost per mile is also included for a hybrid electric vehicle (HEV) with an energy efficiency of 45 miles per gallon, as these types of vehicles are increasingly being used. If \$3.50 per gallon of gasoline is also assumed for the HEV that gets 45 mpg, the energy cost per mile would be 7.8 cents per mile.

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Emission Factors for Greenhouse Gas Inventories
Last Modified: 26 March 2020

Table 2 Mobile Combustion CO₂

| Fuel Type | kg CO ₂ per unit | Unit |
|---------------------------------|-----------------------------|--------|
| Aviation Gasoline | 8.31 | gallon |
| Biodiesel (100%) | 9.45 | gallon |
| Compressed Natural Gas (CNG) | 0.05444 | scf |
| Diesel Fuel | 10.21 | gallon |
| Ethanol (100%) | 5.75 | gallon |
| Kerosene-Type Jet Fuel | 9.75 | gallon |
| Liquefied Natural Gas (LNG) | 4.50 | gallon |
| Liquefied Petroleum Gases (LPG) | 5.68 | gallon |
| Motor Gasoline | 8.78 | gallon |
| Residual Fuel Oil | 11.27 | gallon |

Source: Federal Register EPA: 40 CFR Part 98, e-CFR, June 13, 2017 (see link below), Table C-1.
https://www.ecfr.gov/cgi-bin/text-idx?SID=a2655d7d9f98ec86c08d409793a3f6&mc=true&nkcode=sp40_23.98&onndiv=sp40_23.98_19_1
 LNG: The factor was developed based on the CO₂ factor for Natural Gas factor and LNG fuel density from GREET1_2017.xlsx Model, Argonne National Laboratory. This represents a methodology change from previous versions.

Table 3 Mobile Combustion CH₄ and N₂O for On-Road Gasoline Vehicles

| Vehicle Type | Year | CH ₄ Factor (g / mile) | N ₂ O Factor (g / mile) |
|--|-----------|-----------------------------------|------------------------------------|
| Gasoline Passenger Cars | 1973-74 | 0.1696 | 0.0197 |
| | 1975 | 0.1423 | 0.0443 |
| | 1976-77 | 0.1406 | 0.0458 |
| | 1978-79 | 0.1389 | 0.0473 |
| | 1980 | 0.1326 | 0.0499 |
| | 1981 | 0.0802 | 0.0626 |
| | 1982 | 0.0795 | 0.0627 |
| | 1983 | 0.0782 | 0.0630 |
| | 1984-93 | 0.0704 | 0.0647 |
| | 1994 | 0.0617 | 0.0603 |
| | 1995 | 0.0531 | 0.0560 |
| | 1996 | 0.0434 | 0.0503 |
| | 1997 | 0.0337 | 0.0446 |
| | 1998 | 0.0240 | 0.0389 |
| | 1999 | 0.0215 | 0.0355 |
| | 2000 | 0.0175 | 0.0304 |
| | 2001 | 0.0105 | 0.0212 |
| | 2002 | 0.0102 | 0.0207 |
| | 2003 | 0.0095 | 0.0181 |
| | 2004 | 0.0078 | 0.0085 |
| | 2005 | 0.0075 | 0.0067 |
| | 2006 | 0.0078 | 0.0075 |
| | 2007 | 0.0072 | 0.0052 |
| | 2008 | 0.0072 | 0.0049 |
| | 2009 | 0.0071 | 0.0046 |
| | 2010 | 0.0071 | 0.0046 |
| | 2011 | 0.0071 | 0.0046 |
| | 2012 | 0.0071 | 0.0046 |
| 2013 | 0.0071 | 0.0046 | |
| 2014 | 0.0071 | 0.0046 | |
| 2015 | 0.0068 | 0.0042 | |
| 2016 | 0.0068 | 0.0039 | |
| 2017 | 0.0054 | 0.0018 | |
| 2018 | 0.0052 | 0.0016 | |
| Gasoline Light-Duty Trucks (Vans, Pickup Trucks, SUVs) | 1973-74 | 0.1908 | 0.0218 |
| | 1975 | 0.1634 | 0.0513 |
| | 1976 | 0.1594 | 0.0555 |
| | 1977-78 | 0.1614 | 0.0534 |
| | 1979-80 | 0.1594 | 0.0555 |
| | 1981 | 0.1479 | 0.0680 |
| | 1982 | 0.1442 | 0.0681 |
| | 1983 | 0.1368 | 0.0722 |
| | 1984 | 0.1294 | 0.0764 |
| | 1985 | 0.1220 | 0.0806 |
| | 1986 | 0.1146 | 0.0848 |
| | 1987-93 | 0.0813 | 0.1035 |
| | 1994 | 0.0646 | 0.0982 |
| | 1995 | 0.0517 | 0.0908 |
| | 1996 | 0.0452 | 0.0871 |
| | 1997 | 0.0452 | 0.0871 |
| | 1998 | 0.0412 | 0.0787 |
| | 1999 | 0.0333 | 0.0618 |
| | 2000 | 0.0340 | 0.0631 |
| | 2001 | 0.0221 | 0.0370 |
| | 2002 | 0.0242 | 0.0424 |
| | 2003 | 0.0221 | 0.0373 |
| | 2004 | 0.0115 | 0.0098 |
| | 2005 | 0.0105 | 0.0094 |
| | 2006 | 0.0108 | 0.0090 |
| | 2007 | 0.0103 | 0.0081 |
| | 2008 | 0.0095 | 0.0080 |
| | 2009 | 0.0095 | 0.0080 |
| 2010 | 0.0095 | 0.0080 | |
| 2011 | 0.0096 | 0.0084 | |
| 2012 | 0.0096 | 0.0083 | |
| 2013 | 0.0096 | 0.0080 | |
| 2014 | 0.0095 | 0.0083 | |
| 2015 | 0.0094 | 0.0081 | |
| 2016 | 0.0091 | 0.0079 | |
| 2017 | 0.0084 | 0.0068 | |
| 2018 | 0.0081 | 0.0065 | |
| Gasoline Heavy-Duty Vehicles | <1981 | 0.4604 | 0.0497 |
| | 1982-84 | 0.4492 | 0.0538 |
| | 1985-86 | 0.4090 | 0.0515 |
| | 1987 | 0.3675 | 0.0849 |
| | 1988-1989 | 0.3492 | 0.0933 |
| | 1990-1995 | 0.3246 | 0.1142 |
| | 1996 | 0.1278 | 0.1680 |
| | 1997 | 0.0624 | 0.1726 |
| | 1998 | 0.0655 | 0.1750 |
| | 1999 | 0.0648 | 0.1724 |
| | 2000 | 0.0630 | 0.1660 |
| | 2001 | 0.0577 | 0.1468 |
| | 2002 | 0.0434 | 0.1612 |
| | 2003 | 0.0602 | 0.1553 |
| | 2004 | 0.0298 | 0.0164 |
| | 2005 | 0.0297 | 0.0083 |
| | 2006 | 0.0299 | 0.0241 |
| | 2007 | 0.0322 | 0.0015 |
| | 2008 | 0.0340 | 0.0015 |
| | 2009 | 0.0339 | 0.0015 |
| 2010 | 0.0320 | 0.0015 | |
| 2011 | 0.0304 | 0.0015 | |
| 2012 | 0.0313 | 0.0015 | |
| 2013 | 0.0313 | 0.0015 | |
| 2014 | 0.0315 | 0.0015 | |
| 2015 | 0.0332 | 0.0021 | |
| 2016 | 0.0321 | 0.0061 | |
| 2017 | 0.0329 | 0.0084 | |
| 2018 | 0.0326 | 0.0082 | |
| Gasoline Motorcycles | 1985-1995 | 0.0699 | 0.0087 |
| | 1996-2018 | 0.0672 | 0.0069 |

Source: EPA (2020) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. All values are calculated from Tables A-107 through A-111.

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Last Modified: 26 March 2020

Table 4 Mobile Combustion CH₄ and N₂O for On-Road Diesel and Alternative Fuel Vehicles

| Vehicle Type | Fuel Type | Vehicle Year | CH ₄ Factor (g / mile) | N ₂ O Factor (g / mile) |
|---------------------------------|-----------|--------------|-----------------------------------|------------------------------------|
| Passenger Cars | Diesel | 1960-1982 | 0.0006 | 0.0012 |
| | | 1983-1995 | 0.0005 | 0.0010 |
| | | 1996-2006 | 0.0005 | 0.0010 |
| | | 2007-2018 | 0.0002 | 0.0192 |
| Light-Duty Trucks | Diesel | 1960-1982 | 0.0011 | 0.0017 |
| | | 1983-1995 | 0.0009 | 0.0014 |
| | | 1996-2006 | 0.0010 | 0.0015 |
| | | 2007-2018 | 0.0290 | 0.0214 |
| Medium- and Heavy-Duty Vehicles | Diesel | 1960-2006 | 0.0051 | 0.0048 |
| | | 2007-2018 | 0.0095 | 0.0051 |
| Light-Duty Cars | Methanol | | 0.0080 | 0.0060 |
| | Ethanol | | 0.0080 | 0.0060 |
| | CNG | | 0.0820 | 0.0090 |
| | LPG | | 0.0090 | 0.0090 |
| Light-Duty Trucks | Biodiesel | | 0.0300 | 0.0190 |
| | Ethanol | | 0.0120 | 0.0110 |
| | CNG | | 0.1230 | 0.0110 |
| | LPG | | 0.0120 | 0.0130 |
| Medium-Duty Trucks | LNG | | 0.1230 | 0.0110 |
| | Biodiesel | | 0.0290 | 0.0210 |
| | CNG | | 4.2000 | 0.0010 |
| | LPG | | 0.0140 | 0.0340 |
| Heavy-Duty Trucks | LNG | | 4.2000 | 0.0430 |
| | Biodiesel | | 0.0090 | 0.0010 |
| | Methanol | | 0.0750 | 0.0280 |
| | Ethanol | | 0.0750 | 0.0280 |
| Buses | CNG | | 3.7000 | 0.0010 |
| | LPG | | 0.0130 | 0.0260 |
| | LNG | | 3.7000 | 0.0010 |
| | Biodiesel | | 0.0090 | 0.0430 |
| Buses | Methanol | | 0.0220 | 0.0320 |
| | Ethanol | | 0.0220 | 0.0320 |
| | CNG | | 10.0000 | 0.0010 |
| | LPG | | 0.0340 | 0.0170 |
| Buses | LNG | | 10.0000 | 0.0010 |
| | Biodiesel | | 0.0090 | 0.0430 |

Source: EPA (2020) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. All values are calculated from Tables A-110 through A-113.

Table 5 Mobile Combustion CH₄ and N₂O for Non-Road Vehicles

| Vehicle Type | Fuel Type | CH ₄ Factor (g / gallon) | N ₂ O Factor (g / gallon) |
|--|---------------------|-------------------------------------|--------------------------------------|
| Ships and Boats | Residual Fuel Oil | 0.55 | 0.55 |
| | Gasoline (2 stroke) | 9.54 | 0.06 |
| | Gasoline (4 stroke) | 4.88 | 0.23 |
| Locomotives | Diesel | 0.31 | 0.50 |
| | Diesel | 0.80 | 0.26 |
| Aircraft | Jet Fuel | 0 | 0.30 |
| | Aviation Gasoline | 7.06 | 0.11 |
| Agricultural Equipment ^a | Gasoline (2 stroke) | 12.96 | 0.06 |
| | Gasoline (4 stroke) | 7.24 | 0.21 |
| | Diesel | 0.28 | 0.49 |
| Agricultural Offroad Trucks | LPG | 2.19 | 0.39 |
| | Gasoline | 7.24 | 0.21 |
| | Diesel | 0.13 | 0.49 |
| Construction/Mining Equipment ^b | Gasoline (2 stroke) | 12.42 | 0.07 |
| | Gasoline (4 stroke) | 5.58 | 0.20 |
| | Diesel | 0.20 | 0.47 |
| Construction/Mining Offroad Trucks | LPG | 1.05 | 0.41 |
| | Gasoline | 5.58 | 0.20 |
| | Diesel | 0.13 | 0.49 |
| Lawn and Garden Equipment | Gasoline (2 stroke) | 15.57 | 0.06 |
| | Gasoline (4 stroke) | 9.94 | 0.18 |
| | Diesel | 0.33 | 0.47 |
| Airport Equipment | LPG | 0.35 | 0.41 |
| | Gasoline | 2.58 | 0.25 |
| | Diesel | 0.17 | 0.49 |
| Industrial/Commercial Equipment | LPG | 0.33 | 0.41 |
| | Gasoline (2 stroke) | 15.14 | 0.06 |
| | Gasoline (4 stroke) | 5.48 | 0.20 |
| Logging Equipment | Diesel | 0.23 | 0.47 |
| | LPG | 0.44 | 0.41 |
| | Gasoline (2 stroke) | 12.03 | 0.08 |
| Railroad Equipment | Gasoline (4 stroke) | 6.71 | 0.18 |
| | Diesel | 0.10 | 0.49 |
| | Gasoline | 9.78 | 0.19 |
| Recreational Equipment | Diesel | 0.44 | 0.42 |
| | LPG | 1.20 | 0.41 |
| | Gasoline (2 stroke) | 7.81 | 0.03 |
| Recreational Equipment | Gasoline (4 stroke) | 9.45 | 0.19 |
| | Diesel | 0.41 | 0.41 |
| | LPG | 2.98 | 0.38 |

Source: EPA (2020) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. All values are calculated from Tables A-114 through A-115.

Notes:

^a Includes equipment, such as tractors and combines, as well as fuel consumption from trucks that are used off-road in agriculture.

^b Includes equipment, such as cranes, dumpers, and excavators, as well as fuel consumption from trucks that are used off-road in construction.



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Welcome: Winnie Siau for Los Angeles County Sanitation Districts

Certified Pathways

Fuel Producer: Los Angeles County Sanitation Districts
Company ID: L375

Facility Name: Biogas Conditioning System Facility
Facility ID: F00308

Application for Tier 1 Pathway

Application # A0385

| Pathway Number | Fuel Type | FeedStock | Applied Pathway Description | Applied CI(g/MJ) | Prov. Pathway | Pro. Start Date | Pro. End Date |
|----------------|------------------------------|-------------------|---|------------------|---------------|-----------------|---------------|
| A038501 | Compressed Natural Gas (CNG) | Wastewater Sludge | Fuel Producer: Los Angeles County Sanitation Districts (L375); Facility Name: Biogas Conditioning System (F00308); RNG produced from the mesophilic anaerobic digestion of wastewater sludge at a POTW in Carson, California using grid-based electricity, and delivered to on-site CNG dispensing station. | 20.43 | Yes | 08/20/2021 | 03/31/2023 |

| Certified FPC | Certified CI (gCO _{2e} /MJ) | FPC Start Date | FPC End Date | Certification Date | Certified Pathway Description | FPC Status | Comments | OP CI | Edit |
|-----------------|--------------------------------------|----------------|--------------|--------------------|---|------------|-----------------------|-------|------|
| CNG030A03850100 | 19.28 | 04/01/2021 | 12/31/2030 | 08/20/2021 | Fuel Producer: Los Angeles County Sanitation District (L375); Facility Name: Biogas Conditioning System Facility (F00308); Biomethane produced from the mesophilic anaerobic digestion of wastewater sludge; grid electricity; finished fuel is compressed and dispensed as CNG transportation fuel onsite. (Provisional) | Active | Certified Provisional | No | |

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Appendix C: Landfill Fugitive Emissions

Collection Efficiencies of LACSD’s LFG Systems

Measuring landfill gas collection efficiency is important for gauging emission control effectiveness and energy recovery opportunities. The Los Angeles County Sanitation Districts (LACSD) had developed a methodology for estimating collection efficiency using readily acquired integrated surface methane (ISM) concentration data and the US EPA’s Industrial Source Complex (ISC) air dispersion model. This innovative methodology has been applied previously to estimate collection efficiency at Districts’ Palos Verdes landfill (PVLf) (Huitric and Kong, 2006; Huitric, *et al.*, 2007). This approach is used here to estimate collection efficiencies at Districts’ all six landfills.

Background:

Air dispersion mechanism, on which the US EPA’s ISC model is based, indicated that the gas emission rate from an area source and the resulting surface gas levels are directly linear with one another. This linear relationship allows the usual definition of gas collection efficiency (i.e., the ratio of measured collected gases to an uncertain amount of generated gases) to be restated in terms of surface gas concentrations. Because methane is readily measured within surface gases and because it is proportionate to total gas emissions, it is used here for calculating collection efficiency.

The ISC model can be used to transform the amount of collected methane to an equivalent reduction in surface methane levels achieved by gas collection, ISM_r . Gas generation is then expressed as the sum of the modeled reduction in surface methane due to collection, ISM_r , and the measured surface methane due to emissions, ISM_e . Gas collection efficiency is then calculated by the following equation:

$$E = \frac{ISM_r}{ISM_r + ISM_e} \tag{1}$$

where ISM_e is measured by the integrated surface methane (ISM) monitoring, and ISM_r is calculated by the ISC model. Details of the procedures of this methodology are presented in Huitric and Kong (2006), and Huitric, *et al.* (2007).

Approach:

There are three approaches that can be applied to estimate collection efficiencies. The first approach is the Grid-by-Grid Analysis, by which the collection efficiency is calculated by equation (1) on a grid by grid basis for each quarterly ISM monitoring for all the monitoring grids of each landfill. The second approach is the Averaged Grid Emission Analysis, by which collection efficiency calculation is based on the site-wide, rather than grid by grid, overall average surface emissions, ISM_e , and average modeled

surface emissions reduction, ISM_r . The third approach is the Weighted Average Analysis, by which a frequency analysis of the site meteorological data is made for hours corresponding to actual ISM monitoring. A frequency table is created using possible wind speed ranges (within which ISM monitoring was taken place) and six meteorological stability categories (“A” through “F”). For each combination of wind speed and stability category, a surface methane concentration reduction due to collection is predicted by the ISC model. The weighted overall average methane reduction due to collection, ISM_r , is calculated based on this frequency table of combinations of wind speed and stability category, as well as the corresponding surface methane reduction under each wind speed and stability category combination. Collection efficiency can then be estimated, according to equation (1), using this weighted average methane reduction, ISM_r , and the average of actual surface methane levels, ISM_e .

Among the three approaches, grid-by-grid analysis is the most accurate and detailed approach. However, extensive analyses of grid-by-grid ISM monitoring and meteorological data are required, and this approach generates exceedingly large model output files, making data analysis a difficult and tedious task. The average grid emission analysis is a simpler approach, with simplified analysis yet still generates large model output files. The weighted average analysis is the simplest approach among the three. It generates much smaller and more manageable ISC output files, enables a much easier analysis. Another significant advantage for this weighted average methodology, is that this approach, unlike the other two approaches, relies only on a fixed combination of wind speed and stability category (the frequency table), thus does not require an extensive preprocessing of the meteorological data, that normally requires an outside expert’s assistance and extensive upper air meteorological data gathering, for running the ISC model. Thus, as a result, significant time and efforts can be saved.

These three approaches have been previously applied to Districts’ Palos Verdes landfill (Huitric and Kong, 2006). Collection efficiencies have been estimated by the three approaches using fiscal year 2001 ISM monitoring and the corresponding weather data. While the most accurate and complete grid-by-grid analysis estimated an average collection efficiency of 93.8% for the urban mode and 96.5% for the rural mode, the simpler averaged grid emission analysis yielded collection efficiencies of 93.2% and 96.4%, for urban and rural modes, respectively, and the simplest weighted average approach resulted in collection efficiencies of 92.8% and 96.1%, for urban and rural modes, respectively. This indicates that the weighted average approach is capable of not only saving time and efforts significantly, but also yielding fairly accurate and more conservative collection efficiency estimations. Therefore, the weighted average approach is used to estimate collection efficiencies at Districts’ six landfills in this study.

Collection Efficiency Calculations:

Collection efficiency calculations are conducted for District’s Calabasas landfill (CALF), Puente Hills landfill (PHLF), PVLf, Scholl Canyon landfill (SCLF), and Spadra landfill

(SPLF) using the sites' year 2006 ISM monitoring and weather data. Because Districts' Mission Canyon landfill (MCLF) is not required by regulations to conduct integrated surface methane (ISM) monitoring, no ISM monitoring data for year 2006 are available for MCLF. Alternatively, surface methane monitoring and corresponding weather data obtained during two separate surface methane monitoring events (in which, surface methane concentrations were recorded in a routing fashion covering the entire surface of the site) in June 1998 are used to estimate collection efficiencies for MCLF. Quarterly ISM monitoring, and the corresponding weather data are obtained for the entire year of 2006 for each landfill, except for MCLF, for which data from two monitoring events in June 1998 are used. To make the data files more manageable, a computer database algorithm has been developed to filter out unnecessary weather data and to retain only those weather data recorded in hours corresponding to times of ISM monitoring. This database algorithm assigns a stability category ("A" through "F") according to the method developed by Pasquill (1961) for each data point based on time and wind speed associated with this monitoring event. At the same time, this algorithm also records the number of occurrences for each combination of wind speed and stability category within each landfill dataset.

As a result, a site-specific frequency table counting percentage of occurrence of each wind speed and stability category combination can then be generated for each landfill. Subsequently, similar tables containing ISC model predicted surface methane reductions due to collection for each of the wind speed and stability category combinations can be generated for urban and rural modes, respectively. These tables of the ISC model results are generated based on results obtained from previous modeling work at PVLf (i.e., Huitric and Kong, 2006). Because the ISC model predicted surface methane reductions due to collection were generated in such manner that they are only corresponding to a given set of wind speed and stability category combinations, thus are independent of site-specific meteorological conditions. Therefore, these tables of ISC model results are applied to all landfill sites, in conjunction with each site-specific meteorological condition. The combination of the ISC results table and the site-specific (weather data) frequency table (in fact, the product of these two tables) yields a weighted average surface methane reduction due to collection for a landfill. This weighted average surface methane reduction value combines with the average actual ISM measurement leads to collection efficiency estimates for the landfill.

The US EPA's population guidance suggests that for a 3-km radius circle out from a facility, if the area is > 50% urban, then run the ISC model in the urban mode. Otherwise it's more appropriate to apply the model in rural mode. However, to get a better understanding of gas collection system's performance, results under both rural and urban modes are presented. Table 1 below shows quarterly collection efficiency estimates, based on year 2006 monitoring data and under rural and urban modes respectively, for Districts' all, but one, landfills. For MCLF, collection efficiency estimates, based on June 1998 monitoring data, are presented.

Table 1. Collection Efficiency Estimates for Districts' Landfills

| Landfill | Collection Efficiency | | | | | | | | | |
|-------------|-----------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|-----------------------|--------------|
| | Q1-2006 | | Q2-2006 | | Q3-2006 | | Q4-2006 | | <i>Annual Average</i> | |
| | <i>Rural</i> | <i>Urban</i> | <i>Rural</i> | <i>Urban</i> | <i>Rural</i> | <i>Urban</i> | <i>Rural</i> | <i>Urban</i> | <i>Rural</i> | <i>Urban</i> |
| CALF | 96.0% | 91.8% | 97.9% | 95.6% | 96.1% | 93.9% | 92.8% | 86.1% | 95.7% | 91.8% |
| PHLF | 97.0% | 93.7% | 97.8% | 95.8% | 96.9% | 95.3% | 97.4% | 95.3% | 97.3% | 95.0% |
| PVLF | 97.3% | 94.4% | 98.6% | 97.3% | 98.2% | 97.2% | 96.9% | 94.1% | 97.7% | 95.7% |
| SCLF | 98.8% | 97.5% | 99.7% | 99.4% | 99.4% | 99.0% | 99.8% | 99.7% | 99.4% | 98.9% |
| SPLF | 99.9% | 99.9% | 100% | 100% | 98.8% | 98.0% | 95.1% | 90.9% | 98.5% | 97.2% |
| | June 02, 1998 | | June 18, 1998 | | | | | | <i>Average</i> | |
| MCLF | 93.5% | 87.8% | 97.6% | 95.2% | | | | | 95.5% | 91.5% |

Discussions:

Because there is no year 2006 ISM monitoring data available for MCLF, surface methane monitoring and corresponding weather data collected in June 1998 were used to estimate collection efficiency at MCLF. Sample bags and OVA device were used during the June 1998 monitoring events, because the reading for the OVA device is analog rather than digital, as it's the case for more modern methane reading devices, roundup errors could have resulted. And these roundup errors could lead to higher methane readings than their actual levels. Lower collection efficiency values could be estimated as a result.

Collection efficiencies for PVLF had been estimated previously using Q2/2006 monitoring data (Huitric, *et al.*, 2007). In this previous study, a more accurate and detailed averaged grid emission analysis was used, and it estimated +99% collection efficiencies for PVLF under both rural and urban modes. As discussed earlier in this paper, the weighted average approach, used here in this study, tends to predict slightly lower collection efficiencies, thus its collection efficiency estimates tend to be more conservative. This is true not only for PVLF, but also for other landfills discussed in this paper.

At CALF, in order to improve collected gas quality for energy recovery, gas system's applied vacuum had been decreased about 40% from its previous level beginning in October 2006. This lowering applied vacuum level led to higher ISM level (but still much lower than the 50 ppm regulatory limit) for Q4/2006 as compared to those of the preceding quarters of the year. Consequently, lower collection efficiency values are estimated for Q4/2006.

Below background level of ISM has been measured for the second quarter of 2006 at SPLF, this resulted in a virtually 100% collection efficiency for Q2/2006.

Because the rules of Pasquill's in identifying stability categories of the weather data are vague and not straightforward, in developing and implementing the database algorithm to identify stability categories, the algorithm is designed that whenever there is a weather condition under which either one of the two neighboring stability categories (say, A or B) can be assigned, the algorithm will always choose the stability category that tends to be more unstable (in this case, category A). This would result in a smaller ISC model predicted surface methane reduction due to collection (ISM_r), and as a result, lower yet more conservative collection efficiency estimations are calculated.

In summary, applying simpler yet systematic and effective approach, collection efficiencies for Districts' landfills have been estimated. Even the estimates tend to be more on the conservative side, the results of this study indicate that all Districts' six landfills are having high efficiency LFG collection systems in operation.

References:

Huitric, R. and D. Kong (2006) "Measuring landfill gas collection efficiency using surface methane concentrations", Solid Waste Association of North America (SWANA) 29th Landfill Gas Symposium, St. Petersburg, FL.

Huitric, R., D. Kong, L. Scales, S. Maguin, and P. Sullivan (2007) "Field comparison of landfill gas collection efficiency measurements", Solid Waste Association of North America (SWANA) 30th Landfill Gas Symposium, Monterey, CA.

Pasquill, F. (1961) "The estimation of the dispersion of windborne material", The Meteorological Magazine, Vol. 90, No. 1063, pp.33-49.

Appendix D: Refrigerants

| | | |
|---|---|---|
|  | <h2 style="margin: 0;">SCAQMD RULE 1415 RECORDKEEPING FORM I</h2> |  |
| | | 6563 - PM - M1202.03 - County Sanitation District |

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served: Cryogenics facility

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: **Sign:** **Date:** 03/24/2021

Certified Auditor: Ryan Hook **Sign:**  **Cert. #:** 926813064630

| | | | | | |
|---------------------|--------------------|------------------|---------------|--------------------------|------------------|
| System Type: | Air Cooled Chiller | Make: | Carrier | Model #: | 30GXN150-TF640NE |
| Serial #: | 0301F57303 | Unit Tag: | ch #CH29E-01A | Refrigerant Type: | |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair Leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------------|--------------------------|--|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| 03/24/2021 | Electronic leak detector | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | | | | | |

Determine the annual refrigerant leak: Total Additional Refrigerant =

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant Leak (%): 0.00

Notes:
134A

| | | |
|---|--|---|
|  | <h2>SCAQMD RULE 1415 RECORDKEEPING FORM I</h2> |  |
| | | 6563 - PM - M1202.03 - County Sanitation District |

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served: Cryogenics facility

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: **Sign:** **Date:** 03/24/2021

Certified Auditor: Ryan Hook **Sign:**  **Cert. #:** 926813064630

| | | | | | |
|---------------------|----------------------|------------------|-----------------|--------------------------|------------------|
| System Type: | NAAir Cooled Chiller | Make: | Carrier | Model #: | 30GXN150-TF640NE |
| Serial #: | 0301F57305 | Unit Tag: | ch # RCH29E-01B | Refrigerant Type: | |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair Leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------------|--------------------------|--|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| 03/24/2021 | Electronic leak detector | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | 03/24/2021 | | 0 | | |

Determine the annual refrigerant leak: Total Additional Refrigerant =

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant leak (%): 0.00

Notes:
134A

Chiller is down and is planned for replacement. Large coil leak circuit A1



SCAQMD RULE 1415 RECORDKEEPING FORM I



6563 - PM -
M1202.03 - County
Sanitation District

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served:

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: _____ **Sign:** _____ **Date:** _____

Certified Auditor: Ryan Hook **Sign:** _____ **Cert. #:** _____

| | | |
|---------------------|------------------|--------------------------|
| System Type: | Make: | Model #: |
| Serial #: | Unit Tag: | Refrigerant Type: |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------|------------------|---|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| | | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | | | | | |

Determine the annual refrigerant leak: _____ Total Additional Refrigerant:

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant Leak (%):



SCAQMD RULE 1415 RECORDKEEPING FORM I



6563 - PM -
M1202.03 - County
Sanitation District

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served:

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: _____ **Sign:** _____ **Date:** _____

Certified Auditor: Ryan Hook **Sign:** _____ **Cert.#:** _____

| | | |
|---------------------|------------------|--------------------------|
| System Type: | Make: | Model #: |
| Serial #: | Unit Tag: | Refrigerant Type: |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------|------------------|---|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| | | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | | | | | |

Determine the annual refrigerant leak: _____ Total Additional Refrigerant =

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant Leak (%):

| | | |
|---|---|---|
|  | <h2 style="margin: 0;">SCAQMD RULE 1415 RECORDKEEPING FORM I</h2> |  |
| | | 6563 - PM - M1202.03 - County Sanitation District |

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served: Roof

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: **Sign:** **Date:** 03/23/2021

Certified Auditor: Nick Siperly **Sign:**  **Cert. #:** 926813064630

| | | | | | |
|---------------------|------------|------------------|---------|--------------------------|------------------|
| System Type: | Gas Pack | Make: | Carrier | Model #: | 48AJD030-D-611FF |
| Serial #: | 3706U23227 | Unit Tag: | | Refrigerant Type: | |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair Leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------------|--------------------------|--|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| 03/23/2021 | Electronic leak detector | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | | | | | |

Determine the annual refrigerant leak: Total Additional Refrigerant =

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant Leak (%): 0.00

Notes:
R-22. No leaks found at this time



SCAQMD RULE 1415 RECORDKEEPING FORM I



6563 - PM -
M1202.03 - County
Sanitation District

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served:

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: _____ **Sign:** _____ **Date:** _____

Certified Auditor: Nick Siperly **Sign:** _____ **Cert. #:** _____

System Type: _____ **Make:** _____ **Model #:** _____

Serial #: _____ **Unit Tag:** _____ **Refrigerant Type:** _____

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair Leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------|------------------|---|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| | | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | | | | | |

Determine the annual refrigerant leak: _____ Total Additional Refrigerant =

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant leak (%):



SCAQMD RULE 1415 RECORDKEEPING FORM I



6563 - PM -
M1202.03 - County
Sanitation District

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served:

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: _____ **Sign:** _____ **Date:** _____

Certified Auditor: Nick Siperly **Sign:** _____ **Cert. #:** _____

| | | |
|---------------------|------------------|--------------------------|
| System Type: | Make: | Model #: |
| Serial #: | Unit Tag: | Refrigerant Type: |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------|------------------|---|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| | | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | | | | | |

Determine the annual refrigerant leak: _____ Total Additional Refrigerant:

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant Leak (%):



SCAQMD RULE 1415 RECORDKEEPING FORM I



6563 - PM -
M1202.03 - County
Sanitation District

Facility Name: County Sanitation District LAC**
County Sanitation 24501

Bldg or area served:

Address: 24501 S Figueroa St Carson CA 90745

Mailing Address: PO Box 4998 Whittier CA 90607

Facility Representative: _____ **Sign:** _____ **Date:** _____

Certified Auditor: Nick Siperly **Sign:** _____ **Cert.#:** _____

| | | |
|---------------------|------------------|--------------------------|
| System Type: | Make: | Model #: |
| Serial #: | Unit Tag: | Refrigerant Type: |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Date | Leak Test Method | Name & Address of contractor who repaired leak & performed test | Date Leak Detected (if any) | Date Leak Repaired (if any) | Total Days to Repair leak (if any) | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|------|------------------|---|-----------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|
| | | Air Conditioning Solutions Inc 2223 El Sol Ave Altadena, CA 91001 | | | | | |

Determine the annual refrigerant leak: _____ Total Additional Refrigerant =

ANNUAL REFRIGERANT LEAK DETERMINATION = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$

Annual Refrigerant Leak (%):

SOUTH COAST AQMD RULE 1415 RECORDKEEPING FORM I

Name: County Sanitation 24501
 : 24501 S Figueroa St, Carson, CA 90745
Address: PO Box 4998, Whittier, CA 90607

Representative: _____ **Customer Signature:** *~i:52:75~*

| | | | | | |
|--------------------------------|------------------------------|----------------------------|------------|------------------------------|----|
| 1 Auditor: Nick Siperly | | Cert. #: 1660809483 | | Signed: <i>7/2/06</i> | |
| Type | Chiller - Water Cooled Screw | Make | Carrier | Charge Capacity | |
| # | 3902Q02027 | Model # | 30HXC246RY | Refrigerant | R- |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Leak Test Method | Type of Leak or Malfunction | Date Leak Detected | Date Leak Repaired | Total Days to Repair Leak | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|--------------------------|-----------------------------|--------------------|--------------------|---------------------------|-----------------------------|------------------------------|
| Electronic Leak Detector | None | | | | | |

ine the annual refrigerant leak:
AL REFRIGERANT = $\frac{\text{Additional Refrigerant} \times 100}{\text{Total Charge Capacity}}$
DETERMINATION

Total Additional Refrigerant = _____
Annual Refrigerant Leak (%) = _____

an employee or representative of the owner of the system performed all work, then only write "OWNER" in column IV.

SOUTH COAST AQMD RULE 1415 RECORDKEEPING FORM I

Name: County Sanitation 24501
Address: 24501 S Figueroa St, Carson, CA 90745
Address: PO Box 4998, Whittier, CA 90607

Representative: _____ **Customer Signature:** ~i:52:75~

Auditor: Nick Siperly **Cert. #:** 1660809483 **Signed:** *[Signature]*

| | | | | | |
|-------------|------------------------------|----------------|--------------------|------------------------|----|
| Type | Chiller - Water Cooled Screw | Make | Carrier | Charge Capacity | |
| # | S2112Q20156 | Model # | 30HXC126PYE671AA-1 | Refrigerant | R- |

PLEASE REFER TO FORM II IF A REFRIGERATION LEAK OCCURRED

| Leak Test Method | Type of Leak or Malfunction | Date Leak Detected | Date Leak Repaired | Total Days to Repair Leak | Refrigerant Recovered (lbs) | Additional Refrigerant (lbs) |
|--------------------------|-----------------------------|--------------------|--------------------|---------------------------|-----------------------------|------------------------------|
| Electronic Leak Detector | None | | | | | |

Line the annual refrigerant leak:
ANNUAL REFRIGERANT = Additional Refrigerant X 100
DETERMINATION Total Charge Capacity

Total Additional Refrigerant = _____
Annual Refrigerant Leak (%) = _____

an employee or representative of the owner of the system performed all work, then only write "OWNER" in column IV.

SCAQMD RULE 1415 REFRIGERANT ANNUAL AUDIT (FORM I)

| | | | |
|--|------------------|---|--|
| Facility Name: <u>LAS</u> | | Phone #: <u>714-614-1271</u> | |
| Address: <u>1955 Workman Mill Rd Whittier CA 90601</u> | | | |
| Mailing Address: | | | |
| Facility Representative: <u>JAI ME TALAVERA</u> | | <u>385339127930</u> | Sign: <u>[Signature]</u> Date: <u>7-1-2021</u> |
| Certified Auditor: <u>Garrett Black</u> | | ID# <u>[Redacted]</u> | Sign: <u>[Signature]</u> Date of Audit: <u>6-28-2021</u> |
| Total Capacity | <u>2550</u> lbs. | System Type | Refrigeration: Serial # _____ A/C System: Serial # <u>4604Q69713</u> Refrigerant R <u>134A</u> |
| Please check here if the system had a refrigerant leak: <input type="checkbox"/> | | PLEASE REFER TO FORM II IF A REFRIGERANT LEAK OCCURRED | |

| Date | Leak Test Method | P/O # of Recycler | Name and Address of the CONTRACTOR who repaired leak & performed leak test | Date Leak Detected | Date Leak Repaired | Total Days to Repair Leak | Refrigerant Recovered (lbs) | Additional Refrigerants (lbs) |
|------------------|-------------------|-------------------|--|--------------------|--------------------|---------------------------|-----------------------------|-------------------------------|
| <u>6/28/2021</u> | <u>Electronic</u> | | <u>Carrier Corp 2478 Peck Rd CoF, CA 90601</u> | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| | | | |
|--|---|--------------------------------|------|
| Determine the annual refrigerant leak by use of this equation below: | | Total Additional Refrigerant = | lbs. |
| ANNUAL REFRIGERANT LEAK DETERMINATION = | $\frac{\text{Additional Refrigerant}}{\text{Total Change Capacity}} \times 100 < 5\%$ | Annual Refrigerant Leak % = | % |

NOTE: If an employee or representative of the owner of the system performed all work, then only write "OWNER" in column IV.

| | | | |
|------------------------------|----------------------|------------------|---|
| R1415 (FORM I) JB: (4/13/92) | Form Serial #: _____ | Triplicate Forms | WHITE - SOURCE YELLOW - AUDITOR PINK - SCAQMD |
|------------------------------|----------------------|------------------|---|

SCAQMD RULE 1415 REFRIGERANT ANNUAL AUDIT (FORM I)

| | | | |
|--|------------------|---|--|
| Facility Name: <u>LAS</u> | | Phone #: <u>(714) 614-1271</u> | |
| Address: <u>1955 Workman Mill Rd Whittier CA 90601</u> | | | |
| Mailing Address: | | | |
| Facility Representative: <u>JAME TALAUERA</u> | | ID#: <u>385339127930</u> | Sign: <u>[Signature]</u> Date: <u>7-1-2021</u> |
| Certified Auditor: <u>Gregory Black</u> | | ID#: <u>[Redacted]</u> | Sign: <u>[Signature]</u> Date of Audit: <u>6-28-2021</u> |
| Total Capacity | <u>2550</u> lbs. | System Type | Refrigeration: Serial # _____ A/C System: Serial # <u>4604Q69714</u> Refrigerant <u>R (134)A</u> |
| Please check here if the system had a refrigerant leak: <input type="checkbox"/> | | PLEASE REFER TO FORM II IF A REFRIGERANT LEAK OCCURRED | |

| Date | Leak Test Method | P/O # of Recycler | Name and Address of the CONTRACTOR who repaired leak & performed leak test | Date Leak Detected | Date Leak Repaired | Total Days to Repair Leak | Refrigerant Recovered (lbs) | Additional Refrigerants (lbs) |
|------------------|-------------------|-------------------|--|--------------------|--------------------|---------------------------|-----------------------------|-------------------------------|
| <u>6/28/2021</u> | <u>Electronic</u> | | <u>Carrier Corp 2478 Peck Rd COI CA 90601</u> | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| | | | |
|--|---|--------------------------------|------|
| Determine the annual refrigerant leak by use of this equation below: | | Total Additional Refrigerant = | lbs. |
| ANNUAL REFRIGERANT LEAK DETERMINATION = | $\frac{\text{Additional Refrigerant}}{\text{Total Change Capacity}} \times 100 < 5\%$ | Annual Refrigerant Leak % = | % |

NOTE: If an employee or representative of the owner of the system performed all work, then only write "OWNER" in column IV.

| | | | | | |
|------------------------------|----------------------|------------------|----------------|------------------|---------------|
| R1415 (FORM I) JB: (4/13/92) | Form Serial #: _____ | Triplicate Forms | WHITE - SOURCE | YELLOW - AUDITOR | PINK - SCAQMD |
|------------------------------|----------------------|------------------|----------------|------------------|---------------|

SCAQMD RULE 1415 REFRIGERANT ANNUAL AUDIT (FORM I)

| | | | |
|--|-----------------|---|---|
| Facility Name: <u>LAS</u> | | Phone #: <u>(714) 614-1271</u> | |
| Address: <u>1955 Workman Mill Rd Whittier CA 90601</u> | | | |
| Mailing Address: | | | |
| Facility Representative: <u>JAI ME TALAUERA</u> | | ID#: <u>385339127930</u> | Sign: <u>[Signature]</u> Date: <u>7-1-2021</u> |
| Certified Auditor: <u>Concert Black</u> | | ID#: <u>[Signature]</u> | Sign: <u>[Signature]</u> Date of Audit: <u>6-28-2021</u> |
| Total Capacity | <u>750</u> lbs. | System Type | Refrigeration: Serial # _____ A/C System: Serial # <u>5298-J59060</u> Refrigerant R (<u>134A</u>) |
| Please check here if the system had a refrigerant leak: <input type="checkbox"/> | | PLEASE REFER TO FORM II IF A REFRIGERANT LEAK OCCURRED | |

| Date | Leak Test Method | P/O # of Recycler | Name and Address of the CONTRACTOR who repaired leak & performed leak test | Date Leak Detected | Date Leak Repaired | Total Days to Repair Leak | Refrigerant Recovered (lbs) | Additional Refrigerants (lbs) |
|------------------|-------------------|-------------------|--|--------------------|--------------------|---------------------------|-----------------------------|-------------------------------|
| <u>6/28/2021</u> | <u>Electronic</u> | | <u>Carrier Corp 2478 Pelk Rd COF, CA 90601</u> | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| | | |
|--|---|---|
| Determine the annual refrigerant leak by use of this equation below: | | Total Additional Refrigerant = _____ lbs. |
| ANNUAL REFRIGERANT LEAK DETERMINATION = | $\frac{\text{Additional Refrigerant}}{\text{Total Change Capacity}} \times 100 < 5\%$ | |
| | Annual Refrigerant Leak % = _____ | % |

NOTE: If an employee or representative of the owner of the system performed all work, then only write "OWNER" in column IV.

| | | | | | |
|------------------------------|----------------------|------------------|----------------|------------------|---------------|
| R1415 (FORM I) JB: (4/13/92) | Form Serial #: _____ | Triplicate Forms | WHITE - SOURCE | YELLOW - AUDITOR | PINK - SCAQMD |
|------------------------------|----------------------|------------------|----------------|------------------|---------------|



317 E. 5th Street
Holtville, CA 92250
(760) 356-4018
dispatch@vicsac.com

Invoice

| | |
|----------|-------------------|
| DATE | 04/28/2021 |
| INVOICE# | 85208 |
| TERMS | Due on completion |

| BILL TO |
|--|
| County Sanitation Districts of LA cou4477 P.O. Box 4998 Whittier CA 90607 7608805605Michell |

| SERVICE LOCATION |
|--|
| 6330 E Hwy 78 - MESQUITE REG LANDFILL 6330 E Hwy 78 Brawley CA 92227 (760) 880-5605 |

| JOB# | DATE | PO/REF# | DESCRIPTION |
|------|------------|---------|---|
| 6371 | 03/30/2021 | | <p>Completion Notes: In. 8:30-- AC 10. Worne blower belt. A36, weak 15uf blower motor capacitor. Ac 9 found weak 10uf cfm capacitor. AC 7 found no issues on unit.. scale house window unit, need to be replaced, 2 ton , opening is 26 inches by 18 inches. AC 3 HEATER 2 pole 30 amp 24volt coil contactor is pitted need replacement, and a 10uf blower motor capacitor. AC 3 needs freon, R22. AC14 Found no issues on it. AC15 no issues found. Clock out 1:30 3/31/21 clock in= 8:30. AC5 found overheated 2 pole 30 amp 24volt coil contactor on heat strips. AC4 overheated 2 pole 30amp 24 volt contactor on heat strips. AC6A mini working properly. AC6B Wall pack compressor is shorted needs quote for new unit. Clock out= 10:15. We need to reschedule to finish. 4/27/21 AC 8 found pitted contactor (2pole 40aamp 24volt) . #11 didn't find any issues on unit. Replace blower belt. Unit 12. Found cfm blades dropped from motor, put it back check it, amps were fine. No issues found.</p> |

*PO# 1667294
RECEIVED 5/6/2021
MICHELLE OCHS
WORK ORDER No. 0343355-1A*

| Job Charges | Qty | Rate | Total |
|--|------|------------|-------------------|
| Contract - Commercial Commercial contract; includes material, tax and labor | 1.00 | \$2,475.33 | \$2,475.33 |
| Job Subtotal | | | \$2,475.33 |
| 7.75% sales tax (2017) | | 7.75% | \$0.00 |
| Job Total | | | \$2,475.33 |

*OK TO PAY
7/2/20*

PRE-WORK SIGNATURE

POST-WORK SIGNATURE

04/27/2021 01:24 pm

Signed By:

Signed By: Mesquite Regional Landfill CSDLA

| EQUIPMENT SERVICED | |
|---------------------------------------|------------------------|
| PACKAGE HEAT PUMP: ICP PHH072HOA00AAA | Extended Warranty?: No |
| S/N: G08124051B | Warranty Expires: |
| SKU: | |
| Installed: | |
| Location: Roof #9 | |

Notes:

WALLPACK: BARD WA121-A05XP4XXJ

S/N: 158C072320128-01

SKU:

Installed:

Location: #6-B

Notes:

Extended Warranty?: No

Warranty Expires:

PACKAGE HEAT PUMP: ICP PHH072H0A00AAA

S/N: G081240517

SKU:

Installed:

Location: Roof#8

Notes:

Extended Warranty?: No

Warranty Expires:

PACKAGE HEAT PUMP: ICP PHH036H0A00AAA

S/N: G080220472

SKU:

Installed:

Location: Roof#11

Notes:

Extended Warranty?: No

Warranty Expires:

**PACKAGE HEAT PUMP: DAY & NIGHT
PHH150H0A000AA**

S/N: 0586008522

SKU:

Installed:

Location: Roof#12

Notes:

Extended Warranty?: No

Warranty Expires:

CONDENSER - HP: DAY & NIGHT N4H318GKC100

S/N: E073412561

SKU:

Installed:

Location: Roof#13

Notes:

Extended Warranty?: No

Warranty Expires:

CUSTOMER MESSAGE

Terms: Due upon completion. Thank you for your business.

| | |
|-----------------------|-------------------|
| Invoice Total: | \$2,475.33 |
| Deposits (-): | \$0.00 |
| Payments (-): | \$0.00 |
| Total Due: | \$2,475.33 |

Comment Letter A3

Invoice

Vic's Air Conditioning & Electrical

P.O. Box 815
Holtville, CA 92250
760-356-4018

| Date | Invoice # |
|-----------|-----------|
| 8/19/2021 | 86849 |

| Bill To |
|--|
| County Sanitation Districts of LA cou4477 P.O. Box 4998 Whittier, CA 90607 |

*PO# 1667294 - REPAIRS
MESQUITE REGIONAL LANDFILL
RECEIVED 10/25/2021
MICHELLE OCHS
WORK ORDER No 0343355-14*

| P.O. No. | Terms | Project |
|----------|-------------------|-----------------------------|
| | Due on completion | 6330 E Hwy 78 - MESQUITE... |

| Quantity | Description | Rate | Amount |
|----------|---|--------------|--------|
| | <p>Job# 8247 Assigned Techs: Jorge Teran Completion Notes: AC 10 replace AX36 blower BELT, and 15uf blower capacitor. AC 9 replace 10uf cfm capacitor.. AC 8 Replace a 2 pole 40amp 24volt contactor. AC 3 replace a 2 pole 30amp 24volt coil contactor. AC 5 replace a 2 pole 30amp 24volt coil contactor. AC 4 replace a 2 pole 30amp 24volt coil contactor. AC8 4=16x16x2 FILTERS AC 9 4=16x16x2 FILTERS</p> | | |
| 0 | <p>GENERIC CONTACTOR * 2 POLE 25 - 30 AMP 24V CONTACTORS ARE SWITCHES THAT USE HIGH VOLTAGE TO HELP COMPONENTS IN YOUR UNIT. SINCE THEY ARE IN CONSTANT USE, THEY DO NEED TO BE REPLACED OCCASIONALLY.</p> | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| 1 | L37-120 / GENERIC CONTACTOR * 2 POLE 25 - 30 AMP 24V | 33.24 | 33.24 |
| 0 | <p>10 MFD RUN CAPACITOR REPLACEMENT SIMILAR TO A BATTERY, CAPACITORS HELP START MOTORS BY STORING CURRENT. A DAMAGED CAPACITOR CAN DAMAGE THE MOTOR IF NOT SERVICED. REGULAR MAINTENANCE IS ENCOURAGED.</p> | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| 1 | CR10X440 / 10 MFD RUN CAPACITOR | 18.08 | 18.08 |
| 0 | <p>GENERIC CONTACTOR * 2 POLE 25 - 30 AMP 24V CONTACTORS ARE SWITCHES THAT USE HIGH VOLTAGE TO HELP COMPONENTS IN YOUR UNIT. SINCE THEY ARE IN CONSTANT USE, THEY DO NEED TO BE REPLACED OCCASIONALLY.</p> | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| 1 | L37-120 / GENERIC CONTACTOR * 2 POLE 25 - 30 AMP 24V | 33.24 | 33.24 |
| 0 | <p>GENERIC CONTACTOR * 2 POLE 25 - 30 AMP 24V CONTACTORS ARE SWITCHES THAT USE HIGH VOLTAGE TO HELP COMPONENTS IN YOUR UNIT. SINCE THEY ARE IN CONSTANT USE, THEY DO NEED TO BE REPLACED OCCASIONALLY.</p> | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| 1 | L37-120 / GENERIC CONTACTOR * 2 POLE 25 - 30 AMP 24V | 33.24 | 33.24 |
| 0 | <p>GENERIC CONTACTOR * 2 POLE 35 - 40 AMP 24V CONTACTORS ARE SWITCHES THAT USE HIGH VOLTAGE TO HELP COMPONENTS IN YOUR UNIT. SINCE THEY ARE IN CONSTANT USE, THEY DO NEED TO BE REPLACED OCCASIONALLY.</p> | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| | | Total | |

Comment Letter A3

Invoice

Vic's Air Conditioning & Electrical

P.O. Box 815
 Holtville, CA 92250
 760-356-4018

| Date | Invoice # |
|-----------|-----------|
| 8/19/2021 | 86849 |

| |
|--|
| Bill To |
| County Sanitation Districts of LA cou4477 P.O. Box 4998 Whittier, CA 90607 |

| P.O. No. | Terms | Project |
|----------|-------------------|-----------------------------|
| | Due on completion | 6330 E Hwy 78 - MESQUITE... |

| Quantity | Description | Rate | Amount |
|----------|---|--------------|-------------------|
| 1 | L36-860 / GENERIC CONTACTOR * 2 POLE 35 - 40 AMP 24V | 103.50 | 103.50 |
| 1 | MISC.5 / MISCELLANEOUS .50 | 2.50 | 2.50 |
| 0 | 10 MFD RUN CAPACITOR REPLACEMENT SIMILAR TO A BATTERY, CAPACITORS HELP START MOTORS BY STORING CURRENT. A DAMAGED CAPACITOR CAN DAMAGE THE MOTOR IF NOT SERVICED. REGULAR MAINTENANCE IS ENCOURAGED. | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| 1 | CR10X440 / 10 MFD RUN CAPACITOR | 18.08 | 18.08 |
| 0 | 26.5-56 IN FAN BELT WITHOUT BLOWER REPAIRS IT IS A GOOD MAINTENANCE PRACTICE TO REPLACE A BELT WHEN SERVICING A UNIT IF THE BELT IS CRACKED OR WORN. | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| 1 | A56 / 26.5 - 56 IN FAN BELT WITH BLOWER REPAIRS | 45.90 | 45.90 |
| 0 | 15 MFD RUN CAPACITOR REPLACEMENT SIMILAR TO A BATTERY, CAPACITORS HELP START MOTORS BY STORING CURRENT. A DAMAGED CAPACITOR CAN DAMAGE THE MOTOR IF NOT SERVICED. REGULAR MAINTENANCE IS ENCOURAGED. | 0.00 | 0.00 |
| 1 | PR-FR | 98.93 | 98.93 |
| 1 | CR15X440 / 15 MFD RUN CAPACITOR | 24.92 | 24.92 |
| | 7.75% Sales Tax [2017] | 7.75% | 0.00 |
| | | Total | \$1,104.14 |

*OK TO PAY
M&O*



Vic's Air Conditioning & Electrical
 317 E. 5th Street, Holtville, CA 92250
 (760) 356-4018
 depat.h@vicsac.com

Invoice

DATE 10/07/2021
INVOICE# 87697
TERMS Due on completion

| BILL TO | SERVICE LOCATION |
|---|--|
| County Sanitation Districts of LA County P.O. Box 4998 Whittier CA 90607 7608805605Michell | 6330 E Hwy 78 - MESQUITE REG LANDFILL 6330 E Hwy 78 Brawley CA 92227 (760) 880-5605 |

| JOB# | DATE | PO/REF# | DESCRIPTION |
|------|------------|-------------|---|
| 9695 | 09/28/2021 | PO# 1737578 | Completion Notes: SCALE HOUSE window unit To replace existing 24,000 BTU window unit. |

| Job Charges | Qty | Rate | Total |
|---|------|------------|-------------------|
| Contract - Commercial INSTALLATION LG window unit 24,000 BTU 203/208v 20a Commercial contract; includes material, tax and labor | 1.00 | \$1,724.55 | \$1,724.55 |
| Job Subtotal | | | \$1,724.55 |
| Job Total | | | \$1,724.55 |

PRE-WORK SIGNATURE _____ POST-WORK SIGNATURE _____

Signed By: _____ Signed By: _____

| CUSTOMER MESSAGE | Invoice Total: | \$1,724.55 |
|--|----------------------|-------------------|
| Terms: Due upon completion. Thank you for your business. | Deposits (-): | \$0.00 |
| | Payments (-): | \$0.00 |
| | Total Due: | \$1,724.55 |

\$1,724.55 (circled in blue)

OK TO PAY
WKO

PO# 1737578
RECEIVED 10/12/21
MICHELE OCHS
WORK ORDER NO 0343355-14

Niizawa, Warisa

From: Reece, Jerry
Sent: Tuesday, February 22, 2022 2:44 PM
To: Niizawa, Warisa
Cc: Watson, Mathew; Gonzalez, Jeanine; Vasquez, Alfonso; Chang, Joseph
Subject: FW: REFRIGERANT TOTALS - GW RICHARDSON - LANCASTER / PALMDALE

Good afternoon, Warisa,

Here are the totals that they put in at Palmdale and Lancaster for last year. They did not measure any refrigerant that was removed during the leak checks. When they do the leak checks they remove all refrigerant and fill with nitrogen to check for leaks and then refill after the repairs are made. The totals below reflect how much was put back in after repairs. Not sure if we need to change the way this procedure is done so we get a more accurate account for actual lost refrigerant. If so please let me know and we will make sure that happens.

Thank you,

Jerry Reece
Supervisor of Electrical and Instrumentation Repair | Water Reclamation Plants
562-908-4288 ext. 6703 | c 661-505-3782
jerryreece@lacsds.org



**LOS ANGELES COUNTY
SANITATION DISTRICTS**
Converting Waste Into Resources

[Website](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

From: cassiew@gwrichardsonac.com <cassiew@gwrichardsonac.com>
Sent: Tuesday, February 22, 2022 1:22 PM
To: Reece, Jerry <JerryReece@lacsds.org>
Subject: REFRIGERANT TOTALS - GW RICHARDSON - LANCASTER / PALMDALE

CAUTION: EXTERNAL EMAIL.

Hi Jerry

Thank you for your patience.

I have an approximate total of 23.5 lbs of R410a refrigerant at Palmdale and 80.5 lbs at Lancaster site. Please let me know if you need anything else from me.

Thank you again and have a great day Jerry

Cassie Williams
Office Manager / Human Resources Asst.
GW Richardson Heating and Air Conditioning, Inc.
28231 Avenue Crocker, #100

Appendix E: Indirect Emissions

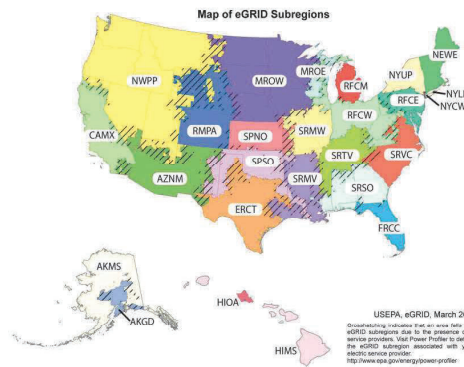
Red text indicates an update from the 2018 version of this document.

Emission Factors for Greenhouse Gas Inventories
Last Modified: 26 March 2020

Table 6 Electricity

| eGRID Subregion | Total Output Emission Factors | | | Non-Baseload Emission Factors | | |
|--------------------------------|-----------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| | CO ₂ Factor (lb / MWh) | CH ₄ Factor (lb / MWh) | N ₂ O Factor (lb / MWh) | CO ₂ Factor (lb / MWh) | CH ₄ Factor (lb / MWh) | N ₂ O Factor (lb / MWh) |
| AKGD (ASCC Alaska Grid) | 1,039.6 | 0.082 | 0.011 | 1,262.5 | 0.110 | 0.015 |
| AKMS (ASCC Miscellaneous) | 525.1 | 0.024 | 0.004 | 1,528.3 | 0.089 | 0.012 |
| AZNM (WECC Southwest) | 1,022.4 | 0.077 | 0.011 | 1,435.3 | 0.097 | 0.014 |
| CAMX (WECC California) | 968.5 | 0.034 | 0.004 | 929.5 | 0.047 | 0.006 |
| ERCT (ERCOT All) | 931.7 | 0.066 | 0.009 | 1,261.0 | 0.083 | 0.012 |
| FRCC (FRCC All) | 931.8 | 0.066 | 0.009 | 1,123.9 | 0.068 | 0.009 |
| HIMS (HCC Miscellaneous) | 1,110.7 | 0.118 | 0.018 | 1,535.7 | 0.139 | 0.022 |
| HIOA (HCC Ohio) | 1,669.9 | 0.180 | 0.027 | 1,882.1 | 0.159 | 0.025 |
| MROE (MRO East) | 1,678.0 | 0.169 | 0.025 | 1,634.3 | 0.149 | 0.022 |
| MROW (MRO West) | 1,239.8 | 0.138 | 0.020 | 1,764.3 | 0.192 | 0.027 |
| NEWE (NPCC New England) | 522.3 | 0.082 | 0.011 | 931.0 | 0.086 | 0.011 |
| NWPP (WECC Northwest) | 639.0 | 0.054 | 0.009 | 1,575.1 | 0.148 | 0.021 |
| NYCW (NPCC NYC/Westchester) | 596.4 | 0.022 | 0.003 | 1,067.6 | 0.022 | 0.002 |
| NYLI (NPCC Long Island) | 1,184.2 | 0.139 | 0.018 | 1,320.3 | 0.040 | 0.005 |
| NYUP (NPCC Upstate NY) | 253.1 | 0.018 | 0.002 | 931.5 | 0.043 | 0.005 |
| RFCE (RFC East) | 718.0 | 0.061 | 0.009 | 1,242.6 | 0.091 | 0.013 |
| RFCM (RFC Michigan) | 1,312.6 | 0.129 | 0.018 | 1,748.9 | 0.171 | 0.024 |
| RFCW (RFC West) | 1,166.1 | 0.117 | 0.017 | 1,828.3 | 0.179 | 0.026 |
| RMPA (WECC Rockies) | 1,273.6 | 0.123 | 0.018 | 1,542.6 | 0.120 | 0.017 |
| SPNO (SPP North) | 1,163.2 | 0.124 | 0.016 | 1,945.5 | 0.201 | 0.029 |
| SFSD (SPP South) | 1,166.6 | 0.091 | 0.013 | 1,603.5 | 0.118 | 0.017 |
| SRMV (SERC Mississippi Valley) | 894.6 | 0.055 | 0.008 | 1,137.6 | 0.069 | 0.010 |
| SRMW (SERC Midwest) | 1,664.2 | 0.185 | 0.027 | 1,907.0 | 0.204 | 0.030 |
| SRSO (SERC South) | 1,027.9 | 0.081 | 0.012 | 1,413.7 | 0.107 | 0.015 |
| SRTV (SERC Tennessee Valley) | 1,031.5 | 0.081 | 0.014 | 1,644.3 | 0.149 | 0.021 |
| SRVC (SERC Virginia/Carolina) | 743.3 | 0.067 | 0.009 | 1,422.6 | 0.128 | 0.018 |
| US Average | 947.2 | 0.085 | 0.012 | 1,432.3 | 0.117 | 0.017 |

Source: EPA eGRID2018, March 2020
Note: Total output emission factors can be used as default factors for estimating GHG emissions from electricity use when developing a carbon footprint or emissions inventory. Annual non-baseload output emission factors should not be used for those purposes, but can be used to estimate GHG emissions reductions from reductions in electricity use.



USEPA, eGRID, March 2020
Attribution: National Grid, the data used to create this map. eGRID subregions are the presence of multiple electric service providers. Use Power Profiler to efficiently determine the eGRID subregion associated with your location and electric service provider.
<http://www.epa.gov/energy/power-profiler>

Table 7 Steam and Heat

| | CO ₂ Factor (kg / mmBtu) | CH ₄ Factor (g / mmBtu) | N ₂ O Factor (g / mmBtu) |
|----------------|-------------------------------------|------------------------------------|-------------------------------------|
| Steam and Heat | 66.33 | 1.250 | 0.125 |

Note: Emission factors are per mmBtu of steam or heat purchased. These factors assume natural gas fuel is used to generate steam or heat at 80 percent thermal efficiency.

Scope 3 Emission Factors

Scope 3 emission factors provided below are aligned with the Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions, version 1.0 (Scope 3 Calculation Guidance). Where applicable, the specific calculation method is referenced. Refer to the Scope 3 Calculation Guidance for more information (<http://www.ghgprotocol.org/scope-3-technical-guidance>).

Table 8 Scope 3 Category 4: Upstream Transportation and Distribution and Category 9: Downstream Transportation and Distribution

These factors are intended for use in the distance-based method defined in the Scope 3 Calculation Guidance. If fuel data are available, then the fuel-based method should be used, with factors from Tables 2 through 5.

| Vehicle Type | CO ₂ Factor (kg / unit) | CH ₄ Factor (g / unit) | N ₂ O Factor (g / unit) | Units |
|-------------------------------|------------------------------------|-----------------------------------|------------------------------------|--------------|
| Medium- and Heavy-Duty Truck | 1.387 | 0.013 | 0.033 | vehicle-mile |
| Passenger Car ^a | 0.335 | 0.009 | 0.008 | vehicle-mile |
| Light-Duty Truck ^b | 0.461 | 0.012 | 0.010 | vehicle-mile |
| Medium- and Heavy-Duty Truck | 0.207 | 0.0020 | 0.0046 | ton-mile |
| Rail | 0.021 | 0.0017 | 0.0005 | ton-mile |
| Waterborne Craft ^c | 0.040 | 0.0122 | 0.0017 | ton-mile |
| Aircraft | 1.265 | 0 | 0.0389 | ton-mile |

Source: CO₂, CH₄, and N₂O emissions data for road vehicles are from Table 2-13 of the U.S. Greenhouse Gas Emissions and Sinks: 1990-2018 (Feb. 2020). Vehicle-miles and passenger-miles data for road vehicles are from Table A-14 of the Federal Highway Administration Highway Statistics 2018. CO₂e emissions data for non-road vehicles are based on Table A-124 of the U.S. Greenhouse Gas Emissions and Sinks: 1990-2018, which are distributed into CO₂, CH₄, and N₂O emissions based on fuel/vehicle emission factors. Freight ton-mile data for non-road vehicles are from Table 1-50 of the Bureau of Transportation Statistics, National Transportation Statistics for 2019 (Data based on 2017).

Notes:
Vehicle-mile factors are appropriate to use when the entire vehicle is dedicated to transporting the reporting company's product. Ton-mile factors are appropriate when the vehicle is shared with products from other companies.
^a Passenger car: includes passenger cars, minivans, SUVs, and small pickup trucks (vehicles with wheelbase less than 121 inches).
^b Light-duty truck: includes full-size pickup trucks, full-size vans, and extended-length SUVs (vehicles with wheelbase greater than 121 inches).
^c Waterborne Craft: updates due to a methodology change.



Frequently Asked Questions (FAQs)

What are Ccf, Mcf, Btu, and therms? How do I convert natural gas prices in dollars per Ccf or Mcf to dollars per Btu or therm?

Btu—British thermal unit(s)

Ccf—the volume of 100 cubic feet (cf)

M—one thousand (1,000)

MM—one million (1,000,000)

Mcf—the volume of 1,000 cubic feet

MMBtu—1,000,000 British thermal units

Therm—One therm equals 100,000 Btu, or 0.10 MMBtu

In the United States, natural gas can be priced in units of dollars per therm, dollars per MMBtu, or dollars per cubic feet.¹ The heat content of natural gas per physical unit (such as Btu per cubic foot) is needed to convert these prices from one price basis to another. In 2020, the U.S. annual [average heat content of natural gas](#) delivered to consumers was about 1,037 Btu per cubic foot. Therefore, 100 cubic feet (Ccf) of natural gas equals 103,700 Btu, or 1.037 therms. One thousand cubic feet (Mcf) of natural gas equals 1.037 MMBtu, or 10.37 therms.

You can convert natural gas prices from one price basis to another with these formulas (assuming a heat content of natural gas of 1,037 Btu per cubic foot):

\$ per Ccf divided by 1.037 equals \$ per therm

\$ per therm multiplied by 1.037 equals \$ per Ccf

\$ per Mcf divided by 1.037 equals \$ per MMBtu

\$ per Mcf divided by 10.37 equals \$ per therm

\$ per MMBtu multiplied by 1.037 equals \$ per Mcf

\$ per therm multiplied by 10.37 equals \$ per Mcf

The heat content of natural gas may vary by location and by type of natural gas consumer, and it may vary over time. Consumers and analysts should contact natural gas distribution companies or natural gas suppliers for information on the heat content of the natural gas they supply to their customers. Some natural gas distribution companies or utilities may provide this information on customers' bills.

¹ The U.S. Energy Information Administration reports natural gas in volumes of cubic feet through 1964 at a pressure base of 14.65 psia (pounds per square inch absolute) at 60° Fahrenheit. Beginning in 1965, the pressure base is 14.73 psia at 60° Fahrenheit.

Learn more:

[Average annual and monthly heat content of natural gas consumed by state](#)

[Newly released heat content data allow for state-to-state natural gas comparisons](#)

[Natural gas conversion calculator](#)

Last updated: June 1, 2021

Other FAQs about Natural Gas

- [Does EIA have county-level energy production data?](#)
- [Does EIA have forecasts or projections for energy production, consumption, and prices for individual states?](#)
- [Does EIA have information on U.S. natural gas and oil pipelines?](#)
- [Does EIA have information on unplanned outages or shutdowns of U.S. energy infrastructure?](#)
- [Does EIA publish energy consumption and price data for cities, counties, or by zip code?](#)
- [Does EIA publish shale gas and coalbed methane production and reserves data?](#)
- [How does EIA calculate the year-ago and five-year averages in the Weekly Natural Gas Storage Report?](#)
- [How many alternative fuel and hybrid vehicles are there in the United States?](#)
- [How much coal, natural gas, or petroleum is used to generate a kilowatt-hour of electricity?](#)
- [How much does it cost to generate electricity with different types of power plants?](#)
- [Which states consume and produce the most natural gas?](#)
- [Why am I being charged more for heating oil or propane than the price on EIA's website?](#)
- [How much natural gas does the United States have, and how long will it last?](#)
- [How much natural gas is consumed in the United States?](#)
- [How much of U.S. carbon dioxide emissions are associated with electricity generation?](#)
- [How much shale gas is produced in the United States?](#)
- [What are Ccf, Mcf, Btu, and therms? How do I convert natural gas prices in dollars per Ccf or Mcf to dollars per Btu or therm?](#)
- [What are the major factors affecting natural gas prices?](#)
- [What can I expect to pay for heating this winter?](#)
- [What is U.S. electricity generation by energy source?](#)
- [What is the outlook for home heating fuel prices this winter?](#)
- [What is the price or cost of natural gas for U.S. electric power producers?](#)
- [What is the volume of world natural gas reserves?](#)
- [What types and amounts of energy are produced in each state?](#)

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[Diesel](#)

[Electricity](#)

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[Gasoline](#)

[General Energy](#)

[Natural Gas](#)

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[Oil/Petroleum](#)

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10/13/21, 10:27 AM

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Appendix F: Biogas-to-Energy

2019 AVERT Emission Factors

National Emission Factors

| National Weighted Averages (lb/MWh) | | | | | | |
|-------------------------------------|--------------|---------------|------------|----------------|--------------|------------|
| | Onshore Wind | Offshore Wind | Utility PV | Distributed PV | Portfolio EE | Uniform EE |
| Avoided CO ₂ Rate | 1,429 | 1,361 | 1,456 | 1,570 | 1,562 | 1,550 |
| Avoided NO _x Rate | 0.78 | 0.68 | 0.84 | 0.91 | 0.89 | 0.85 |
| Avoided SO ₂ Rate | 0.85 | 0.76 | 0.84 | 0.90 | 0.91 | 0.92 |
| Avoided PM _{2.5} Rate | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 |

National factors presented here reflect a weighted average of the avoided emission rates of AVERT's 14 regions. Averages are weighted.

Regional Emission Factors

| Avoided CO ₂ Rate (lb/MWh) | | | | | | |
|---------------------------------------|--------------|---------------|------------|----------------|--------------|------------|
| | Onshore Wind | Offshore Wind | Utility PV | Distributed PV | Portfolio EE | Uniform EE |
| California | 966 | 972 | 980 | 1,071 | 1,073 | 1,061 |
| Carolinas | 1,529 | 1,537 | 1,562 | 1,676 | 1,706 | 1,664 |
| Central | 1,676 | - | 1,661 | 1,790 | 1,785 | 1,800 |
| Florida | 988 | - | 1,044 | 1,126 | 1,112 | 1,087 |
| Mid-Atlantic | 1,420 | 1,422 | 1,460 | 1,576 | 1,567 | 1,540 |
| Midwest | 1,732 | - | 1,718 | 1,850 | 1,850 | 1,860 |
| New England | 1,022 | 1,023 | 1,038 | 1,120 | 1,126 | 1,104 |
| New York | 1,005 | 1,004 | 1,039 | 1,121 | 1,127 | 1,090 |
| Northwest | 1,487 | 1,487 | 1,539 | 1,691 | 1,631 | 1,636 |
| Rocky Mountains | 1,752 | - | 1,728 | 1,886 | 1,883 | 1,904 |
| Southeast | 1,416 | - | 1,504 | 1,619 | 1,599 | 1,563 |
| Southwest | 1,404 | - | 1,392 | 1,519 | 1,547 | 1,544 |
| Tennessee | 1,348 | - | 1,419 | 1,537 | 1,530 | 1,479 |
| Texas | 1,199 | - | 1,242 | 1,315 | 1,298 | 1,282 |

| Avoided SO ₂ Rate (lb/MWh) | | | | | | |
|---------------------------------------|--------------|---------------|------------|----------------|--------------|------------|
| | Onshore Wind | Offshore Wind | Utility PV | Distributed PV | Portfolio EE | Uniform EE |
| California | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 | 0.06 |
| Carolinas | 0.58 | 0.58 | 0.60 | 0.64 | 0.68 | 0.64 |
| Central | 1.30 | - | 1.19 | 1.28 | 1.28 | 1.36 |
| Florida | 0.20 | - | 0.25 | 0.27 | 0.25 | 0.23 |
| Mid-Atlantic | 1.06 | 1.07 | 1.12 | 1.20 | 1.19 | 1.18 |
| Midwest | 1.58 | - | 1.49 | 1.60 | 1.63 | 1.67 |
| New England | 0.08 | 0.08 | 0.11 | 0.12 | 0.12 | 0.09 |
| New York | 0.17 | 0.17 | 0.17 | 0.18 | 0.20 | 0.17 |
| Northwest | 0.69 | 0.68 | 0.71 | 0.78 | 0.75 | 0.75 |
| Rocky Mountains | 0.54 | - | 0.52 | 0.57 | 0.57 | 0.58 |
| Southeast | 0.31 | - | 0.33 | 0.35 | 0.35 | 0.34 |

Appendix G: Food Waste Diversion

Analysis Results (MTCO2E)

Waste Reduction Model (WARM) -- Results

| | |
|---|-------------|
| Total GHG Emissions from Baseline MSW Generation and Management (MTCO ₂ E): | 38,702.33 |
| Total GHG Emissions from Alternative MSW Generation and Management (MTCO ₂ E): | (3,241.45) |
| Incremental GHG Emissions (MTCO ₂ E): | (41,943.78) |

MTCO₂E = metric tons of carbon dioxide equivalent

Per Ton Estimates of GHG Emissions for Baseline and Alternative Management Scenarios

| Material | GHG Emissions per Ton of Material Produced (MTCO ₂ E) | GHG Emissions per Ton of Material Source Reduced (MTCO ₂ E) | GHG Emissions per Ton of Material Recycled (MTCO ₂ E) | GHG Emissions per Ton of Material Landfilled (MTCO ₂ E) | GHG Emissions per Ton of Material Combusted (MTCO ₂ E) | GHG Emissions per Ton of Material Composted (MTCO ₂ E) | GHG Emission per Ton of Material Anaerobically Digested (MTCO ₂ E) |
|--------------------------------------|--|--|--|--|---|---|---|
| Corrugated Containers | 5.58 | (5.58) | (3.14) | 0.18 | (0.49) | NA | NA |
| Magazines/third-class mail | 8.57 | (8.57) | (3.07) | (0.43) | (0.35) | NA | NA |
| Newspaper | 4.68 | (4.68) | (2.71) | (0.85) | (0.56) | NA | NA |
| Office Paper | 7.95 | (7.95) | (2.86) | 1.13 | (0.47) | NA | NA |
| Phonebooks | 6.17 | (6.17) | (2.62) | (0.85) | (0.56) | NA | NA |
| Textbooks | 9.02 | (9.02) | (3.10) | 1.13 | (0.47) | NA | NA |
| Mixed Paper (general) | 6.07 | (6.07) | (3.55) | 0.07 | (0.49) | NA | NA |
| Mixed Paper (primarily residential) | 6.00 | (6.00) | (3.55) | 0.02 | (0.49) | NA | NA |
| Mixed Paper (primarily from offices) | 7.37 | (7.37) | (3.58) | 0.11 | (0.45) | NA | NA |
| Food Waste | 3.66 | (3.66) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Food Waste (non-meat) | 0.76 | (0.76) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Food Waste (meat only) | 15.10 | (15.10) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Beef | 30.09 | (30.09) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Poultry | 2.45 | (2.45) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Grains | 0.62 | (0.62) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Bread | 0.66 | (0.66) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Fruits and Vegetables | 0.44 | (0.44) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Dairy Products | 1.75 | (1.75) | NA | 0.50 | (0.13) | (0.12) | (0.04) |
| Yard Trimmings | NA | NA | NA | (0.20) | (0.17) | (0.05) | (0.09) |
| Grass | NA | NA | NA | 0.12 | (0.17) | (0.05) | 0.00 |
| Leaves | NA | NA | NA | (0.53) | (0.17) | (0.05) | (0.14) |
| Branches | NA | NA | NA | (0.54) | (0.17) | (0.05) | (0.22) |
| HDPE | 1.42 | (1.42) | (0.76) | 0.02 | 1.29 | NA | NA |
| LDPE | 1.80 | (1.80) | NA | 0.02 | 1.29 | NA | NA |
| PET | 2.17 | (2.17) | (1.04) | 0.02 | 1.24 | NA | NA |
| LLDPE | 1.58 | (1.58) | NA | 0.02 | 1.29 | NA | NA |
| PP | 1.52 | (1.52) | (0.79) | 0.02 | 1.29 | NA | NA |
| PS | 2.50 | (2.50) | NA | 0.02 | 1.65 | NA | NA |
| PVC | 1.93 | (1.93) | NA | 0.02 | 0.66 | NA | NA |
| Mixed Plastics | 1.87 | (1.87) | (0.93) | 0.02 | 1.26 | NA | NA |
| PLA | 2.45 | (2.45) | NA | (1.64) | (0.63) | (0.09) | NA |
| Desktop CPUs | 20.86 | (20.86) | (1.49) | 0.02 | (0.66) | NA | NA |
| Portable Electronic Devices | 29.83 | (29.83) | (1.06) | 0.02 | 0.65 | NA | NA |
| Flat-Panel Displays | 24.19 | (24.19) | (0.99) | 0.02 | 0.03 | NA | NA |
| CRT Displays | NA | NA | (0.57) | 0.02 | 0.45 | NA | NA |
| Electronic Peripherals | 10.32 | (10.32) | (0.36) | 0.02 | 2.08 | NA | NA |
| Hard-Copy Devices | 7.65 | (7.65) | (0.56) | 0.02 | 1.20 | NA | NA |
| Mixed Electronics | NA | NA | (0.79) | 0.02 | 0.39 | NA | NA |
| Aluminum Cans | 4.80 | (4.80) | (9.13) | 0.02 | 0.03 | NA | NA |
| Aluminum Ingot | 7.48 | (7.48) | (7.20) | 0.02 | 0.03 | NA | NA |
| Steel Cans | 3.03 | (3.03) | (1.83) | 0.02 | (1.59) | NA | NA |
| Copper Wire | 6.72 | (6.72) | (4.49) | 0.02 | 0.03 | NA | NA |
| Mixed Metals | 3.65 | (3.65) | (4.39) | 0.02 | (1.02) | NA | NA |
| Glass | 0.53 | (0.53) | (0.28) | 0.02 | 0.03 | NA | NA |
| Asphalt Concrete | 0.11 | (0.11) | (0.08) | 0.02 | NA | NA | NA |
| Asphalt Shingles | 0.19 | (0.19) | (0.09) | 0.02 | (0.35) | NA | NA |
| Carpet | 3.68 | (3.68) | (2.38) | 0.02 | 1.10 | NA | NA |
| Clay Bricks | 0.27 | (0.27) | NA | 0.02 | NA | NA | NA |
| Concrete | NA | NA | (0.01) | 0.02 | NA | NA | NA |
| Dimensional Lumber | 2.13 | (2.13) | (2.66) | (0.92) | (0.58) | NA | NA |
| Drywall | 0.22 | (0.22) | 0.03 | (0.06) | NA | NA | NA |
| Fiberglass Insulation | 0.38 | (0.38) | NA | 0.02 | NA | NA | NA |
| Fly Ash | NA | NA | (0.87) | 0.02 | NA | NA | NA |
| Medium-density Fiberboard | 2.41 | (2.41) | NA | (0.85) | (0.58) | NA | NA |
| Structural Steel | 1.67 | (1.67) | (1.93) | 0.02 | NA | NA | NA |
| Vinyl Flooring | 0.58 | (0.58) | NA | 0.02 | (0.31) | NA | NA |
| Wood Flooring | 4.03 | (4.03) | NA | (0.86) | (0.74) | NA | NA |
| Tires | 4.30 | (4.30) | (0.38) | 0.02 | 0.50 | NA | NA |
| Mixed Recyclables | NA | NA | (2.85) | 0.03 | (0.42) | NA | NA |
| Mixed Organics | NA | NA | NA | 0.18 | (0.15) | (0.09) | (0.06) |
| Mixed MSW | NA | NA | NA | 0.31 | 0.01 | NA | NA |

Analysis Results (MTCO2E)

GHG Emissions from Baseline Management of Municipal Solid Wastes

| Material | Baseline Generation of Material (Tons) | Baseline Recycling (Tons) | GHG Emissions from Recycling (MTCO ₂ E) | Baseline Landfilling (Tons) | GHG Emissions from Landfilling (MTCO ₂ E) | Baseline Combustion (Tons) | GHG Emissions from Combustion (MTCO ₂ E) | Baseline Composting (Tons) | GHG Emissions from Composting (MTCO ₂ E) | Baseline Anaerobic Digestion (Tons) | GHG Emissions from Anaerobic Digestion (MTCO ₂ E) | Total GHG Emissions (MTCO ₂ E) |
|--------------------------------------|--|---------------------------|--|-----------------------------|--|----------------------------|---|----------------------------|---|-------------------------------------|--|---|
| Corrugated Containers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Magazines/third-class mail | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Newspaper | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Office Paper | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Phonebooks | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Textbooks | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Paper (general) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Paper (primarily residential) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Paper (primarily from offices) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Food Waste | 77,794.00 | NA | NA | 77,794.00 | 38,702.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38,702.33 |
| Food Waste (non-meat) | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Food Waste (meat only) | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Beef | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Poultry | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grains | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bread | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fruits and Vegetables | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dairy Products | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Yard Trimmings | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grass | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Leaves | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Branches | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HDPE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| LDPE | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| PET | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| LLDPE | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| PP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| PS | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| PVC | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Plastics | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| PLA | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | 0.00 |
| Desktop CPUs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Portable Electronic Devices | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Flat-Panel Displays | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| CRT Displays | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Electronic Peripherals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Hard-Copy Devices | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Electronics | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Aluminum Cans | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Aluminum Ingot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Steel Cans | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Copper Wire | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Metals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Glass | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Asphalt Concrete | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | 0.00 |
| Asphalt Shingles | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Carpet | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Clay Bricks | 0.00 | NA | NA | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | 0.00 |
| Concrete | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | 0.00 |
| Dimensional Lumber | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Drywall | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | 0.00 |
| Fiberglass Insulation | 0.00 | NA | NA | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | 0.00 |
| Fly Ash | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | 0.00 |
| Medium-density Fiberboard | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Structural Steel | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | 0.00 |
| Vinyl Flooring | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Wood Flooring | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Tires | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Recyclables | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Mixed Organics | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mixed MSW | 0.00 | NA | NA | 0.00 | 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | 0.00 |
| Total | 77,794.00 | 0.00 | 0.00 | 77,794.00 | 38,702.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38,702.33 |

Appendix H: Water Recycling

Mojave/Metropolitan Water Storage Program

In 2003, Metropolitan entered into a demonstration agreement with [Mojave Water Agency](#). The agreement allows for the exchange of SWP water on the basis of one acre-foot of return water for each acre-foot of water previously delivered to Mojave. A 2011 amendment extended the agreement to 2035 and reduced program costs. Metropolitan did not store or recover water from the Mojave program during FY 2020/21, leaving 18,812 AF in the exchange account as of June 30, 2021.

Water Transfers and Exchanges

San Gabriel Valley Municipal Water District Exchange

A 2013 purchase and exchange agreement with San Gabriel Valley Municipal Water District meant that during FY 2020/21, Metropolitan developed 1,629 AF of additional supply by exchange.

Colorado River Resources

Acquisitions and exchanges made possible by the 2003 Quantification Settlement Agreement continued during FY 2020/21. Figure 3-2 illustrates annual water supplies managed through the CRA since CY 2012. In CY 2020, Metropolitan managed a total of about 1,154,000 AF of water supplies through the Colorado River system. Of this volume, 687,000 AF was conveyed into Metropolitan’s service area. Metropolitan also stored 338,000 AF of Intentionally Created Surplus in Lake Mead and stored or exchanged more than 128,000 AF of supplies outside Metropolitan’s service area. On January 2021, Metropolitan’s ICS storage in Lake Mead reached a record high level of 1,293,029 AF. For the remainder of CY 2021, due to dry conditions on the State Water Project, Metropolitan planned to divert approximately 1,068,000 AF of Colorado River supplies, including 70,000 AF of ICS, while keeping more than 1.2 MAF in Lake Mead for later use.

Figure 3-3 illustrates the storage levels of lakes Mead and Powell through FY 2020/21. While peak snowpack conditions were near average in 2021, a dry fall and significantly below-average spring

Niizawa, Warisa

From: Hartling, Earle
Sent: Friday, January 28, 2022 2:25 PM
To: Niizawa, Warisa
Subject: RE: Recycled Water Volume for 2021

Hey Warisa,

I'm still missing the official groundwater recharge numbers for December, as well as the December flows for the Lakewood and Central Basin MWD systems and Palmdale agriculture. However, my best estimate for calendar year is about 112,500 acre-feet.

If you'd like, I can give you updates as new data is received.

Earle

From: Niizawa, Warisa <warisaniizawa@lacs.org>
Sent: Thursday, January 27, 2022 2:20 PM
To: Hartling, Earle <EHartling@lacs.org>
Subject: Recycled Water Volume for 2021

Good Afternoon Earle,

I am working on the 2021 GHG Inventory Report and need the recycled water volume for the year. I understand that you may not have all the data available yet as it is still early in the year. However, I was wondering if there is any preliminary number that I can use?

Thank you in advance for your help,
Warisa

State Water Project Resources

Metropolitan holds a contract with DWR that provides for SWP participation rights and an allocation of 1,911,500 AF annually, subject to availability. The two-year period from 2020 through 2021 ranked as the second driest two-year period in the historical record, exceeded only by 1976-77. This dry sequence resulted in a 20 percent allocation of SWP contract supplies in CY 2020 and a 5 percent allocation for CY 2021. Below-average snowpack and dry soil conditions in 2021 reduced runoff in the Feather River watershed to near-record lows. In FY 2020/21, Metropolitan managed 685,000 AF through the SWP system (Fig. 3-1), about 790,000 AF less water than in the previous fiscal year (FY 2020/21 deliveries and storage are subject to final reconciliation). During FY 2020/21, Metropolitan exercised options under its SWP water management programs to ensure delivery capability under these dry-year conditions. These included drafting more than 34,000 AF from San Joaquin Valley storage accounts, 117,000 AF from flexible storage accounts in Castaic Lake and Lake Perris, and supplying the Mills Water Treatment Plant with 9,500 AF of supplies from Diamond Valley Lake to offset State Water Project demands.

Metropolitan’s net SWP payments during FY 2020/21 were \$521.8 million (Table 3-1) on a modified accrual basis. Metropolitan also administered existing storage programs outside its service area along the SWP system, as described on the following pages.

Water Storage Programs

Semitropic/Metropolitan Water Banking and Exchange Program

Metropolitan’s 1994 groundwater storage agreement with Semitropic Water Storage District in Kern County allows storage of up to 350,000 AF. During FY 2020/21, Semitropic delivered 12,223 AF in the second half of the fiscal year. The total water in storage on June 30, 2021 was 253,072 AF.

Table 4-13
Single Agency Perspectives

| | IEUA | Ontario | San Diego | Los Angeles |
|--|---------------------------------------|--|--|---|
| Additional Tertiary Recycled Water Available in 2005 ^[1] | 43,705 AFY | 8,682 AFY (included in IEUA) | 23,512 AFY | 24,650 AFY |
| Energy Intensity of TERTIARY Recycled Water ^[2] | 333 kWh/AF (Distribution Energy only) | 333 kWh/AF (Distribution Energy only) | 1,150 kWh/AF ^[10] (Treatment & Distribution Energy) | 600 kWh/AF ^[3] (Treatment & Distribution Energy) |
| Marginal Water Supply | SWP (E.Branch) via MWD | SWP (E.Branch) &/OR City Groundwater | SWP & Co.River via SDCWA/MWD | SWP & Co.River via MWD |
| Energy Intensity of Marginal Water Supply ^[4] | 3,224 kWh/AF | 2,054 kWh/AF (average SWP @ 3,224 & G.W. @ 884) ^[5] | 3,140 kWh/AF (assume 50/50, SWP and Colorado River) | 2,666 kWh/AF (avg. 2,917 SWP & 2,415 Co. River) |
| Incremental R.Water (5 years, 2011-2015) | 218,525 AF ^[6] | 43,410 AF | 117,560 AF | 123,250 AF |
| Cumulative 5 Year Impact^[7] | | | | |
| Marginal Water Supply | 742,985 MWH | 89,164 MWH | 369,138 MWH | 328,585 MWH |
| Recycled Water | 72,769 MWH | 14,456 MWH | 135,194 MWH | 73,950 MWH |
| Est. Energy Savings | 631,756 MWH | 74,708 MWH | 233,944 MWH | 254,635 MWH |
| Avoided N.Gas (CCGT, MMBTUs) ^[8] | 4,544,219 MMBTUs | 537,375 MMBTUs | 1,682,759 MMBTUs | 1,831,590 MMBTUs |
| Reduced GHG (CCGT, metric tons) ^[9] | 241,114 metric tons | 28,513 metric tons | 89,286 metric tons | 97,183 metric tons |
| <p><u>Notes:</u></p> <p>[1] From Table 4-3. Recycled Water Opportunity Profiles of Four Southern California Water Agencies. The San Diego estimate includes secondary effluent being discharged to the ocean that could be treated to tertiary standards with existing treatment plant capacity.</p> <p>[2] The energy intensity of each agency's recycled water is the <i>incremental energy</i> needed to treat and deliver wastewater effluent for its intended beneficial use. For IEUA and Ontario, since wastewater must be treated to tertiary standards before disposal, the recycled water energy intensity is the amount of incremental distribution energy only. Correctly computed, the amount of recycled water distribution would be computed as the amount of energy needed to deliver recycled water from its source (wastewater treatment plant), less the amount of distribution energy needed to deliver the marginal water supply(s) the recycled water is displacing. For simplicity and conservatism, we assumed that all recycled water distribution was "incremental." For San Diego and Los Angeles, however, since advanced primary and secondary effluent is allowed to be discharged to the ocean without further treatment, the energy intensity of recycled water is computed as the sum of the incremental energy needed to treat wastewater effluent to tertiary standards, plus the incremental amount of distribution energy needed to use the recycled water.</p> <p>[3] Incremental energy needed to treat secondary effluent to tertiary was estimated by LADWP at 100 kWh/AF. Recycled water distribution energy was not available. However, distribution energy for potable water supplies (imported and from the Los Angeles Aqueduct) was estimated by LADWP at 387 kWh/AF. For conservatism, we used an estimate of 500 kWh/AF for recycled water distribution and did not make any adjustment for distribution energy that would be incurred in any case to deliver marginal water supplies to end users.</p> | | | | |

**ENERGY SUSTAINABILITY PLAN
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

3.0 METROPOLITAN BASELINE FACILITIES AND OPERATIONS

Metropolitan's net energy use and costs are dominated by the pumping (transport) of water over the CRA and SWP systems. For the period of 2013-2018, approximately 93 percent of Metropolitan's annual electricity costs were for the SWP and CRA systems, and the remaining 7 percent of energy costs were associated with retail electricity purchases for water treatment plants and other Metropolitan facilities (Figure 3-1).

During this period, 75 percent of Metropolitan's total annual energy expenditures were associated with the SWP, which accounted for approximately 55 percent of total annual energy consumption to pump water into Southern California. This disproportionate energy cost is attributed to a higher unit price for electricity to pump water along the SWP, as compared to the unit price of electricity for the CRA (which includes low cost federal hydropower from Hoover and Parker Dams). Additionally, the large energy cost is also due to the higher energy intensity of SWP supplies (approximately 3,300 kWh/acre-foot [AF]) compared to CRA supplies (approximately 2,000 kWh/AF).

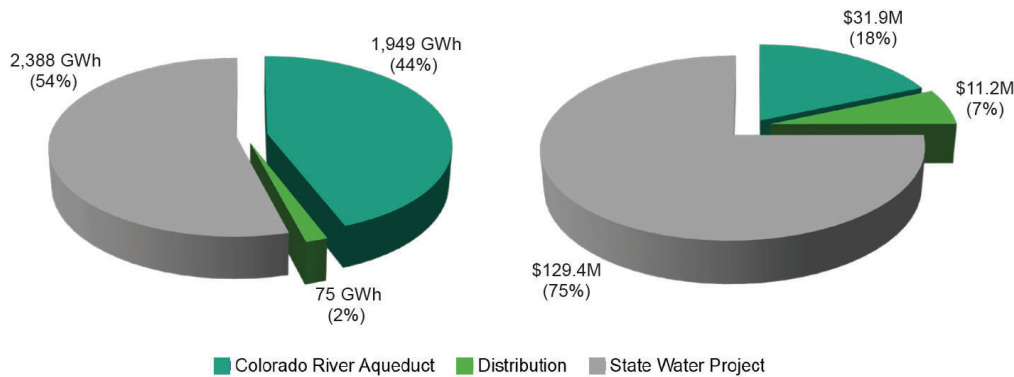


Figure 3-1 Metropolitan's overall electricity requirements and cost (average 2013-2018)

Given Metropolitan does not have direct control over operations of the SWP, the remainder of this section will focus exclusively on the energy use and cost for CRA operations (wholesale power) and for Metropolitan's treatment, distribution and office facilities (retail power).

For wholesale power, Metropolitan has proactively maintained several power contracts with various suppliers that have contract prices and terms set to help Metropolitan and its member agencies maintain a favorable overall low cost for wholesale electricity related to transporting water via the CRA. Today, Metropolitan has existing advantageous contracts with the U.S. Department of Interior, Bureau of Reclamation (USBR), Western Area Power Administration (WAPA) and others. Details on these contracts are discussed in the following sections. Annual costs for wholesale electricity have varied widely due to a variety of factors, including pumping volume, the utilization of energy banking provisions, and the volatility in the energy markets. Additionally, California's cap-and-trade program established in 2013 resulted in an added cost to market prices for energy with GHG emissions, including imported electricity, and affects Metropolitan's wholesale energy cost. Due to this embedded cost of carbon, Metropolitan's carbon footprint is evaluated as a continuing future factor in higher



| 1. Subregion Output Emission Rates (eGRID2018) | | | | | | | | | | | | | | | | |
|--|-------------------------|---------------------------------------|-----------------|------------------|-------------------|------------------------|------------------------------|-----------------|--|-----------------|------------------|-------------------|------------------------|------------------------------|-----------------|---------------------|
| eGRID subregion acronym | eGRID subregion name | Total output emission rates lb/MWh | | | | | | | Non-baseload output emission rates lb/MWh | | | | | | | Grid Gross Loss (%) |
| | | CO ₂ | CH ₄ | N ₂ O | CO ₂ e | Annual NO _x | Ozone Season NO _x | SO ₂ | CO ₂ | CH ₄ | N ₂ O | CO ₂ e | Annual NO _x | Ozone Season NO _x | SO ₂ | |
| AKGD | ASCC Alaska Grid | 1,039.6 | 0.082 | 0.011 | 1,045.0 | 5.5 | 5.4 | 1.1 | 1,262.5 | 0.110 | 0.015 | 1,269.6 | 6.5 | 6.4 | 1.1 | 5.12% |
| AKMS | ASCC Miscellaneous | 525.1 | 0.024 | 0.004 | 527.0 | 7.7 | 7.8 | 0.7 | 1,528.3 | 0.068 | 0.012 | 1,533.6 | 22.8 | 23.0 | 2.0 | 5.12% |
| AZNM | WECC Southwest | 1,022.4 | 0.077 | 0.011 | 1,027.5 | 0.7 | 0.7 | 0.3 | 1,435.3 | 0.097 | 0.014 | 1,441.8 | 1.0 | 0.9 | 0.3 | 4.80% |
| CAMX | WECC California | 496.5 | 0.034 | 0.004 | 498.7 | 0.5 | 0.4 | 0.0 | 929.5 | 0.047 | 0.006 | 932.5 | 0.8 | 0.7 | 0.0 | 4.80% |
| ERCT | ERCOT All | 931.7 | 0.066 | 0.009 | 936.1 | 0.5 | 0.6 | 0.8 | 1,261.0 | 0.083 | 0.012 | 1,266.5 | 0.8 | 0.8 | 1.1 | 4.87% |
| FRCC | FRCC All | 931.8 | 0.066 | 0.009 | 936.1 | 0.4 | 0.4 | 0.3 | 1,123.9 | 0.068 | 0.009 | 1,128.3 | 0.4 | 0.4 | 0.4 | 4.88% |
| HIMS | HICC Miscellaneous | 1,110.7 | 0.118 | 0.018 | 1,119.1 | 7.6 | 7.6 | 4.0 | 1,535.7 | 0.139 | 0.022 | 1,545.8 | 11.8 | 11.5 | 5.0 | 5.14% |
| HIOA | HICC Oahu | 1,669.9 | 0.180 | 0.027 | 1,682.6 | 3.5 | 3.8 | 8.0 | 1,682.1 | 0.159 | 0.025 | 1,693.6 | 4.2 | 4.2 | 8.4 | 5.14% |
| MROE | MRO East | 1,678.0 | 0.169 | 0.025 | 1,689.7 | 0.9 | 0.9 | 0.9 | 1,634.3 | 0.149 | 0.022 | 1,644.5 | 0.9 | 1.0 | 1.0 | 4.88% |
| MROW | MRO West | 1,239.8 | 0.138 | 0.020 | 1,249.2 | 1.0 | 1.0 | 1.4 | 1,764.3 | 0.192 | 0.027 | 1,777.0 | 1.5 | 1.4 | 1.8 | 4.88% |
| NEWB | NPCC New England | 522.3 | 0.082 | 0.011 | 527.6 | 0.4 | 0.4 | 0.1 | 931.0 | 0.086 | 0.011 | 936.5 | 0.5 | 0.4 | 0.3 | 4.88% |
| NWPP | WECC Northwest | 639.0 | 0.064 | 0.009 | 643.4 | 0.6 | 0.6 | 0.4 | 1,575.1 | 0.148 | 0.021 | 1,585.2 | 1.4 | 1.4 | 0.8 | 4.80% |
| NYCW | NPCC NYC/Westchester | 596.4 | 0.022 | 0.003 | 597.8 | 0.3 | 0.2 | 0.0 | 1,067.6 | 0.022 | 0.002 | 1,068.9 | 0.5 | 0.5 | 0.1 | 4.88% |
| NYLI | NPCC Long Island | 1,184.2 | 0.139 | 0.018 | 1,193.1 | 0.9 | 0.8 | 0.2 | 1,320.3 | 0.040 | 0.005 | 1,322.8 | 1.0 | 0.9 | 0.4 | 4.88% |
| NYUP | NPCC Upstate NY | 253.1 | 0.018 | 0.002 | 253.9 | 0.1 | 0.1 | 0.1 | 931.5 | 0.043 | 0.005 | 934.0 | 0.5 | 0.5 | 0.5 | 4.88% |
| RFCE | RFCC East | 716.0 | 0.061 | 0.008 | 720.0 | 0.3 | 0.3 | 0.5 | 1,242.6 | 0.091 | 0.013 | 1,248.6 | 0.7 | 0.6 | 0.8 | 4.88% |
| RFCM | RFCC Michigan | 1,312.6 | 0.129 | 0.018 | 1,321.2 | 0.8 | 0.8 | 1.3 | 1,748.9 | 0.171 | 0.024 | 1,760.3 | 1.2 | 1.2 | 2.1 | 4.88% |
| RFCW | RFCC West | 1,166.1 | 0.117 | 0.017 | 1,174.0 | 0.8 | 0.7 | 0.9 | 1,828.3 | 0.179 | 0.026 | 1,840.5 | 1.4 | 1.1 | 1.4 | 4.88% |
| RMPA | WECC Rockies | 1,273.6 | 0.123 | 0.018 | 1,281.9 | 0.7 | 0.7 | 0.4 | 1,542.6 | 0.120 | 0.017 | 1,550.7 | 0.8 | 0.8 | 0.4 | 4.80% |
| SPNO | SPP North | 1,163.2 | 0.124 | 0.018 | 1,171.6 | 0.6 | 0.7 | 0.3 | 1,945.5 | 0.201 | 0.029 | 1,959.2 | 1.2 | 1.3 | 0.7 | 4.88% |
| SPSO | SPP South | 1,166.6 | 0.091 | 0.013 | 1,172.8 | 0.8 | 0.9 | 1.2 | 1,603.5 | 0.118 | 0.017 | 1,611.5 | 1.3 | 1.3 | 1.9 | 4.88% |
| SRMV | SERC Mississippi Valley | 854.6 | 0.055 | 0.008 | 858.4 | 0.6 | 0.7 | 1.0 | 1,137.6 | 0.069 | 0.010 | 1,142.2 | 0.9 | 0.9 | 1.4 | 4.88% |
| SRMW | SERC Midwest | 1,664.2 | 0.185 | 0.027 | 1,676.8 | 1.1 | 0.8 | 2.5 | 1,907.0 | 0.204 | 0.030 | 1,920.9 | 1.1 | 0.9 | 2.7 | 4.88% |
| SRSO | SERC South | 1,027.9 | 0.081 | 0.012 | 1,033.5 | 0.5 | 0.4 | 0.3 | 1,413.7 | 0.107 | 0.015 | 1,420.9 | 0.8 | 0.7 | 0.5 | 4.88% |
| SRTV | SERC Tennessee Valley | 1,031.5 | 0.097 | 0.014 | 1,038.1 | 0.6 | 0.5 | 0.6 | 1,644.3 | 0.149 | 0.021 | 1,654.4 | 0.8 | 0.8 | 0.9 | 4.88% |
| SRVC | SERC Virginia/Carolina | 743.3 | 0.067 | 0.009 | 747.5 | 0.4 | 0.4 | 0.3 | 1,422.6 | 0.128 | 0.018 | 1,430.9 | 0.9 | 0.8 | 0.5 | 4.88% |
| U.S. | | 947.2 | 0.085 | 0.012 | 952.9 | 0.6 | 0.6 | 0.7 | 1,432.3 | 0.117 | 0.017 | 1,440.1 | 1.0 | 0.9 | 1.0 | 4.87% |

Created: 3/9/2020

Appendix I: Tulare Lake Compost

Composting

| Unit Processes & Inputs | Inputs & Daily Emissions | Default Input (Optional) |
|--|--------------------------|--------------------------|
| Feedstock Input | | |
| Material type | sludge | |
| Quantity of sludge going to composting (Mg/day-wet) | 100 | |
| Solids content (%) | 28.0% | |
| Quantity of sludge going to composting (Mg/day-dry) | 28.1 | |
| Sludge density (kg/m ³) | 950 | 950 |
| Volume of sludge going to composting (m ³ /day) | 106 | |
| Has the sludge been digested prior to composting? | yes | no |
| Total nitrogen (%-dry weight) | 5.0% | 5.0% |
| Total phosphorus (%-dry weight) | 1.9% | 1.9% |
| Total volatile solids - TVS (%-dry weight) | 51.0% | 51.0% |
| Organic carbon (%-dry weight) | 29.0% | 29% |
| Will compost use replace commercial fertilizer use where it is applied? | yes | yes |
| Volumetric ratio of amendment to sludge (m ³ amendment:m ³ sludge, as is)* | 3 | 3 |
| Amendment grinding on-site? | yes | yes |
| Volume of sludge in compost (%) | 25% | |
| Volume of amendment in compost (%) | 75% | |
| Density of amendment (kg/m ³ **) | 250 | 250 |
| Quantity of amendment going to composting (Mg/day-wet) | 79 | |
| Blended Feedstock Characteristics | | |
| C:N | 22 | 22 |
| Solids content (%) | 43% | 43% |
| Type of composting operation | ASP | |
| Are active composting piles covered or is the air from them treated through a biofilter? | yes | yes |
| Fuel Use | | |
| Grinding (L-diesel fuel/day) | | 261 |
| Setting up and breaking down piles (L-diesel fuel/day) | | 448 |
| Total fuel use for composting equipment (L-diesel fuel/day) | 710 | 710 |
| Applying compost to land (L-diesel fuel/day) | 68 | 68 |
| CO₂ Emissions from Diesel used (Mg/day) | 2.15 | |
| Electricity Use | | |
| Electricity requirements of composting system (kWh/day) | 5,053 | 5,053 |
| CO₂ Emissions from Electricity used (Mg/day) | 0.92 | |
| Methane Emissions | | |
| CH ₄ emitted from compost pile (Mg/day) | 0.00 | |
| CO₂ Emissions equivalents from released CH₄ (Mg/day) | 0.00 | |
| Nitrous Oxide Emissions | | |
| N ₂ O emitted from compost pile (Mg/day) | 0.033 | |
| N ₂ O emitted from applying compost to soils (Mg/day) | 0.0110 | |
| CO₂ Emissions equivalents from released N₂O (Mg/day) | 10.26 | |
| Carbon Sequestration | | |
| From compost applied to soil (Mg CO ₂ /day) | -7.02 | |
| Fertilizer Off-set Credits | | |
| From nitrogen applied to soil (Mg CO ₂ /day) | -5.61 | |
| From phosphorus applied to soil (Mg CO ₂ /day) | -1.07 | |
| CO₂ equivalents (Mg/year) | | |
| Scope 1 | 1,968 | |
| Scope 2 | 334 | |
| Scopes 1 & 2 | 2,303 | |
| Scope 3 | -2,439 | |
| Biomass combustion | - | |

Instructions and Notes

General: Enter data for all solids that were composted. Whenever possible use data from local measurements.

*For this row, if entering a local value, enter in both the blue and orange cells.

**Default is for density of sawdust.

| Key | |
|---|---|
| Input | 0 |
| Default from reference values | 0 |
| Data used to calculate default (for information only) | 0 |
| Process output | 0 |

Appendix J: Biogas-to-Vehicle Fuel

Comment Letter A3

Last Updated 1/7/2022 Total Number of Applications (2.0) or Pathways (3.0) 1240

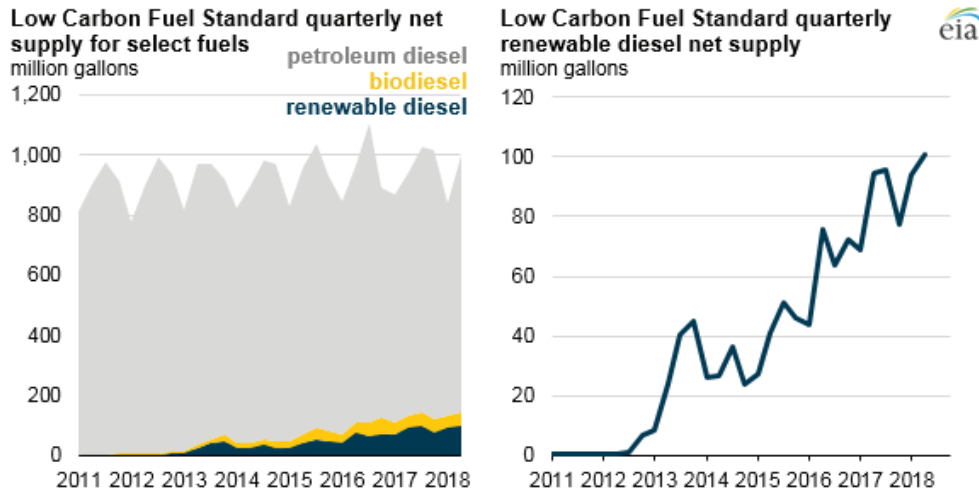
| App/Pathway # | Class | Calculator Version | Applicant & Pathway Description | Facility Location | Feedstock | Fuel Type | Current Certified FPC | Current Certified CI | Certification Date |
|---------------|--------|--------------------|---|-------------------|-------------------------|------------------------------|-----------------------|----------------------|--------------------|
| A038501 | Tier 1 | 3.0 | Fuel Producer: Los Angeles County Sanitation District (L375); Facility Name: Biogas Conditioning System Facility (F00308); Biomethane produced from the mesophilic anaerobic digestion of wastewater sludge; grid electricity; finished fuel is compressed and dispensed as CNG transportation fuel onsite. (Provisional) | California | Wastewater Sludge (030) | Compressed Natural Gas (CNG) | CNG030A03850100 | 19.28 | 8/20/2021 |



Today in Energy

November 13, 2018

Renewable diesel is increasingly used to meet California's Low Carbon Fuel Standard



Source: U.S. Energy Information Administration, based on California Air Resources Board

Renewable diesel net supply to California's fuel market has increased since the state's [Low Carbon Fuel Standard \(LCFS\)](#) program went into effect in 2011, reaching 100 million gallons during the second quarter of 2018, or 10.1% of the total diesel supplied to California that quarter. The LCFS program, which is administered by the California Air Resources Board, [sets standards to incrementally decrease the carbon intensity](#) of motor gasoline and diesel fuel by at least 10% by 2020 relative to a 2010 baseline.

Renewable diesel is an alternative fuel that is chemically similar to petroleum diesel and nearly identical in its performance characteristics. Renewable diesel shares the same [fat, oil, and grease feedstocks](#) as biodiesel, but renewable diesel can be blended into petroleum diesel at higher blend levels compared with biodiesel blends. Renewable diesel is often produced either through hydrotreating at a biorefinery or co-processing at a petroleum refinery.

To comply with the LCFS, petroleum refiners, importers of motor gasoline and diesel, and wholesalers of motor transportation fuel are required to either produce low carbon fuels or purchase credits to demonstrate compliance. The mechanism used to regulate the LCFS is a measurement called carbon intensity, which is an estimate of a fuel's lifecycle greenhouse gas emissions. Transportation fuels with a carbon intensity lower than the annual standard earn credits, while transportation fuels with a carbon intensity higher than the annual standard earn deficits. Regulated parties trade credits through the online [LCFS Reporting Tool and Credit Bank & Transfer System](#).

As carbon intensity requirements have become progressively more stringent, prices for LCFS credits have increased. Throughout most of the program's history, LCFS credits averaged lower than \$100/metric ton (mt). During 2017, LCFS credits averaged \$89/mt, growing to \$164/mt through the first 10 months of 2018, suggesting an increasing difficulty for refiners, importers, and wholesalers in meeting annual carbon intensity targets.

Low Carbon Fuel Standard credit price (October 2012-October 2018)

U.S. dollars per metric ton

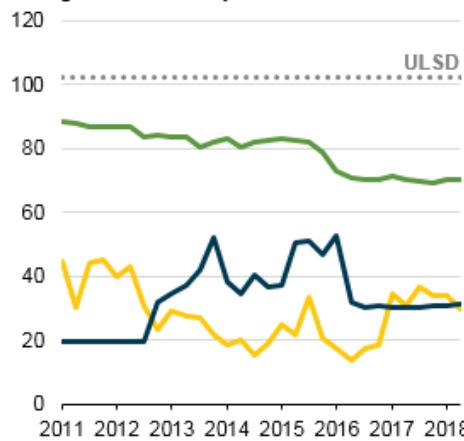


Source: U.S. Energy Information Administration, based on Argus Media

The credits generated by renewable diesel producers have some of the lowest carbon intensities of any of the LCFS-approved liquid fuel pathways. The average carbon intensity of renewable diesel, measured in grams of carbon dioxide equivalent per megajoule (gCO₂e/MJ), has been about 30 gCO₂e/MJ since spring 2016. Much of this low carbon intensity fuel is made from used cooking oil feedstock. Compared with other liquid transportation fuels, renewable diesel's carbon intensity is approximately 20 gCO₂e/MJ lower than ethanol and about equal to the average carbon intensity of biodiesel. Ultra-low sulfur diesel, which accounts for most of the diesel supplied in California, has a carbon intensity of 102 gCO₂e/MJ.

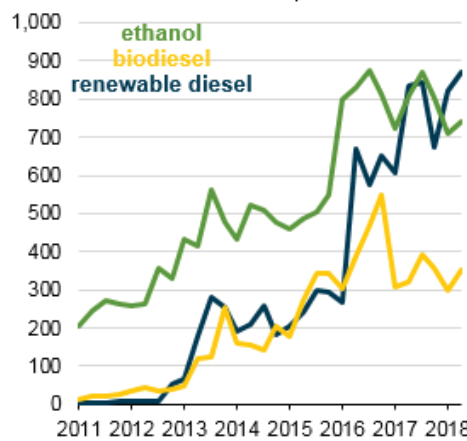
LCFS carbon intensity (Q1 2011-Q2 2018)

average carbon intensity score



LCFS credits (Q1 2011-Q2 2018)

thousand metric tons of CO₂ equivalent



Source: U.S. Energy Information Administration, based on California Air Resources Board

Under the LCFS program, renewable diesel generates a large number of credits relative to other fuels because it has some of the largest lifecycle greenhouse gas reductions compared with other fuels. The total volume of LCFS credits associated with renewable diesel exceeded that of fuel ethanol for the first time in 2018, reaching about 870,000 mt of carbon dioxide equivalent during the second quarter of 2018.

While renewable diesel imports from Singapore remain significant, planned renewable diesel production capacity additions during the next several years have the potential to increase the share of domestic renewable diesel in the California market. A number of LCFS amendments are slated to go into effect in 2019, including an extension of the program to increase the total reduction in carbon intensity to at least 20% by 2030.

Principal contributors: Steve Hanson, Neil Agarwal

Energy Density and Conversion Factors

| <i>Fuel (units)</i> | <i>Energy Density and Conversion Factors</i> |
|-------------------------------------|--|
| CARBOB (gal) | 119.53 (MJ/gal) |
| CaRFG (gal) | 115.83 (MJ/gal) |
| Diesel fuel (gal) | 134.47 (MJ/gal) |
| CNG (scf) | 105.5 (MJ/Therm) |
| LNG (gal) | 78.83 (MJ/gal) |
| Electricity (KWh) | 3.60 (MJ/KWh) |
| Hydrogen (kg) | 120.00 (MJ/kg) |
| Undenatured Anhydrous Ethanol (gal) | 80.53 (MJ/gal) |
| Denatured Ethanol (gal) | 81.51 (MJ/gal) |
| FAME Biodiesel (gal) | 126.13 (MJ/gal) |
| Renewable Diesel (gal) | 129.65 (MJ/gal) |
| Alternative Jet Fuel (gal) | 126.37 (MJ/gal) |
| Renewable Naphtha | 117.66 (MJ/gal) |
| Propane (gal) | 89.63 (MJ/gal) |

Source: CARB's Quarterly Fuel Usage Spreadsheet

https://ww3.arb.ca.gov/fuels/lcfs/dashboard/quarterlysummary/quarterlysummary_103119.xlsx

Comment Letter A3

| RNG CI | | | Diesel | | |
|------------------|--------|-------------|------------------|--------|-------------|
| RNG CI | 19.28 | gCO2e/MJ | RNG CI | 102.00 | gCO2e/MJ |
| Energy in Diesel | 134.47 | MJ/gal | Energy in Diesel | 134.47 | MJ/gal |
| RNG CI | 2.59 | CO2e/gallon | RNG CI | 13.72 | CO2e/gallon |



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April 8, 2022

Mr. Mathew Watson P.E.
Supervising Engineer
Los Angeles County Sanitation Districts
1955 Workman Mill Road
Whittier, CA 90601

Subject: Positive Verification Opinion for Greenhouse Gas Emissions and Reductions for Emissions Year 2021

Dear Mr. Watson:

Environmental Science Associates (ESA) is pleased to provide the following Positive Verification Opinion for Greenhouse Gas (GHG) Emissions and GHG Reductions for Emissions Year 2021 based on information within the Draft 2021 GHG Emissions Inventory Report (Report) compiled by Los Angeles County Sanitation Districts (LACSD) and submitted to ESA on March 15, 2022.

Based on verification analysis conducted that is generally consistent with California's Global Warming Solutions Act methods and in accordance with standards within ISO 14064-3, ESA concludes, with the assurances detailed below, that the 2021 GHG inventory and GHG reduction statements in the Report are free of material errors and a fair representation of the GHG data and information; and prepared in accordance with the best practices related to GHG quantification, monitoring, and reporting.

This statement is made with the following assurances. In ESA's limited review of data collected from emissions sources, individual facilities and the organization, ESA verified evidence that LACSD's 2021 GHG emissions and the GHG reductions were:

- Materially correct and a fair representation of the GHG data and information; and generally prepared in accordance with the best practices related to GHG quantification, monitoring, and reporting, and
- Based on data checks conducted, ESA has determined, with limited assurance, that there is low risk for material misstatement from GHG calculations and data aggregation at the organizational level.

Based on the GHG emissions and reductions data provided within the Report, LACSD has demonstrated carbon neutrality.



April 8, 2022
Page 2

Thank you for engaging ESA to complete this verification. If you have any questions about our verification statement, or the underlying analysis, please feel free to contact me at ceaster@esassoc.com or 925.900.3675.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Easter", written over a horizontal line.

Christopher Easter
Air Quality & GHG Director
CARB Lead GHG Verifier Accreditation #CARB H-21-039

Copy: David Rothbart (LACSD)
Warisa Niizawa (LACSD)
Jeff Caton (ESA)
Tim Sturtz (ESA)

2.3.1.1 Letter A3: Los Angeles County Sanitation Districts

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

A3-1 The comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses general comments received on the Revised Draft 2045 CAP.

In response to the comment's statement regarding incorporating by reference the commenter's previous July 6, 2022, comments, the Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR such that the commenter's previous submittals predate the issuance of this Recirculated Draft PEIR, are inapplicable, and are presumed not to bear on the adequacy or accuracy of the Recirculated Draft PEIR pursuant to CEQA Guidelines section 15088.5(f)(1), stating "[w]hen an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period."

A3-2 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis.

The County acknowledges the commenter's suggestion to consider public agency projects covered by their own agency CAPs as consistent with the Revised Draft 2045 CAP. The County retains discretion over this decision on a project-by-project basis. However, to qualify for CEQA streamlining of GHG impacts CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b), all projects must complete the Checklist.

A3-3 The comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see response to comment A3-2 above and General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects.

A3-4 The comments do not raise significant environmental issues related to the Recirculated Draft PEIR, as the Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR such that the commenter’s previous July 6, 2022 comment submittal predates the issuance of this Recirculated Draft PEIR, are inapplicable, and are presumed not to bear on the adequacy or accuracy of the Recirculated Draft PEIR pursuant to CEQA Guidelines section 15088.5(f)(1), stating “[w]hen an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period.” To the extent the commenter believes its prior comments have continuing relevance, the burden was on the commenter to explain how, with sufficient specificity, to enable the County to provide a detailed response. The County does not have the duty to decipher what comments on the May 2022 Draft PEIR the commenter believes to still be applicable from its previous comment letters, which is why the public has been given the opportunity to draft new comment letters on the Recirculated Draft PEIR.

2.3.2 Responses to Comments from Organizations



May 15, 2023

Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

Dear County of Los Angeles,

We at Abundant Housing LA would like to express our gratitude for the work you have done in creating the Revised Draft of the 2045 Climate Action Plan. However, we also see the need to express concerns with housing policy in this Revised Draft. As an organization that advocates for more housing options and sustainable land use policies, we recognize the important connection between climate change and zoning/land use decisions.

The 2045 Climate Action Plan is an important document that has significant implications for housing planning, zoning, and land use policies in Los Angeles County. The plan recognizes the critical connection between climate change and land use decisions, and outlines strategies to reduce greenhouse gas emissions while promoting sustainable development practices. By addressing issues such as affordable housing, transportation, and density near transit areas, the plan seeks to create more equitable and sustainable communities that are better able to withstand the impacts of climate change. As such, it is essential that housing planners, zoning officials, and other stakeholders take this plan into account when making decisions about future development in Los Angeles County.

While we appreciate the efforts made in this plan, there are critical issues in housing policy that need to be addressed in order to achieve a more equitable and sustainable future for all residents of Los Angeles County.

Firstly, we believe that there is a need for more affordable housing options near colleges and universities. We suggest permitting SROs or co-ops near these institutions where possible, as this could help address the housing needs of students and other community members while promoting sustainable transportation options like biking. Additionally, we urge you to consider connecting every college/university with safe, protected bikeways as part of your transportation plan.

Secondly, we believe that there is a need to address the jobs-housing imbalance in job-rich areas. We suggest allowing apartments with reduced or eliminated parking minimums in residential neighborhoods within a 1-2 mile buffer around job centers identified on the SCAG map. This could help reduce vehicle miles traveled and promote more sustainable transportation options.

Finally, we are concerned about the lowering of maximum allowable densities in HQTAs from 50 to 30. While we understand that there is a range of 30-150 mentioned in the plan, it is possible that some areas may end up with lower densities due to community input and other factors. We urge you to consider ways to ensure that high-quality transit areas are able to accommodate higher densities where appropriate.

We hope that you will take these concerns into consideration as you continue to refine and implement this important plan. Thank you again for your hard work on behalf of all residents of Los Angeles County.

Sincerely,

Leonora Camner

Leonora Camner
Executive Director
Abundant Housing LA

Scott Epstein

Scott Epstein
Director of Policy and Research
Abundant Housing LA

2.3.2.1 Letter O1: Abundant Housing LA

This letter provides input on the Revised Draft 2045 CAP only. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*.



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May 15, 2023

Subject: Acton Town Council Comments on the Draft Climate Action Plan and the Recirculated Draft Program Environmental Impact Report.

Reference: Solicitation of Public Comment on the Draft Climate Acton Plan and the Recirculated Draft Environmental Impact Report Issued March 29, 2023.

Dear Ms. Hua;

The Acton Town Council appreciates this opportunity to provide comments on the Draft Climate Action Plan ("DCAP") and the Recirculated Draft Environmental Impact Report ("DEIR"). These comments are submitted before the 5:00 PM deadline on May 15, 2023 that was established by the Department of Regional Planning; therefore, they are timely filed.

Unfortunately, the Acton Town Council did not have sufficient time to conduct a proper review the 774 page DEIR or its 610 pages of appendices or the 150 page DCAP with its 234 pages of appendices. Nonetheless, we present the comments that we have been able to prepare over the following pages and respectfully request that they be taken into consideration as DRP moves forward with developing the CAP. For the sake of simplicity, our comments are offered in a list format. Additionally, and to the extent that they continue to be relevant, the ATC hereby incorporates by reference all previous comments that we submitted regarding the Climate Action Plan including, but not limited to, the comments submitted in January 2022 and April, 2022

O2-1

Decarbonization and Electrification in Areas That Have Unreliable Electrical Service:

The ATC appreciates that the DCAP reflects the content of the motion adopted by the Los Angeles County Board of Supervisors ("Board") on March 15, 2022 which directs that new County policies, ordinances, and code changes pertaining to building decarbonization and electrification in unincorporated areas consider "the varying climate, geography, and

O2-2

"Our lives begin to end the day we become silent about things that matter" Martin Luther King, Jr.

infrastructure challenges that rural communities face”; this motion was a critical step to ensuring that rural communities like Acton (which have unreliable electrical service and therefore depend on propane and natural gas for heating and cooking) are not harmed by the County’s march toward full electrification of all unincorporated areas. The motion is reflected in description of DCAP Measure E1 (which transitions existing buildings to “all electric” while taking into consideration the unique challenges that rural communities face) and DCAP Measure E2 (which standardizes electrification of all new development while taking into consideration the unique challenges that rural communities face).

O2-2 (cont)

The Acton Town Council is concerned that the criteria which ultimately be used to identify rural communities having “climate, geography, infrastructure, and sole-source dependency challenges” in the ordinances that will implement Measures E1 and E2 will not be sufficiently broad to properly capture the residential areas that will experience life-safety risks if they are required to fully decarbonize. Acton and other rural communities have, since 2019, experienced devastating electrical power shutoffs in the Fall and Winter that have lasted days. Additionally, the climate in Acton and other rural communities is significantly colder than many other regions in Los Angeles County, and we often experience harsh winters with temperatures plummeting below 20 degrees and heavy snowfall accumulations over 1 foot. A considerable amount of energy is required to maintain safe living conditions in such inclement weather which, incidentally, also causes additional electrical power shutoffs. As such, wood-burning and fossil fuel-powered heating systems are not mere conveniences in Acton; they are necessary survival tools which provide a reliable and independent source of warmth. These traditional heating methods are not contingent on the availability of electricity and they provide a lifeline during extended power outages. Accordingly, the ATC respectfully requests that the DCAP be revised to incorporate the following criteria for identifying the unincorporated communities that face climate, geography, and infrastructure challenges pursuant to Measures E1 and E2:

O2-3

- Any rural community at an elevation of 1,800 feet or higher and which has
 - experienced two or more “Public Safety Power Shutoff” events lasting more than 24 hours since October, 2019 or
 - experienced a loss in electrical service lasting more than 24 hours due to snow or other climate conditions.

O2-4

The Acton Town Council believes these criteria will provide the flexibility that is called for in the Board motion while contemporaneously achieving the broad decarbonization and building electrification objectives established by the DCAP.

Modifications to Measure E5 are Greatly Appreciated, However the Measure E5 Performance Objectives Can Only Be Achieved in Urban Areas.

The Acton Town Council greatly appreciates the revisions that were made to the Performance Objectives established for Measure E5 which increase recycled graywater and

O2-5

“potable reuse” in unincorporated areas; however, we are struggling to understand how this performance objective will be achieved in rural areas where recycled water does not exist. Moreover, in rural communities where septic systems are used, Action E5.1 (which segregates graywater streams from use in irrigation) will result in the discharge of very high concentrations of nitrified and acidified organic waste into residential septic systems because the graywater streams (which substantially dilute the nitrate and organic content of the blackwater streams) will be removed from the septic system. This in turn will substantially increase nitrate concentrations in the effluent released from the septic dispersal fields. Moreover, it is not clear that septic systems will function properly with high concentrations of nitrified and acidified organic waste; if these concentrated wastes cause a septic system to fail, then there are no alternatives and the resident must replace the entire system. Concerns with implementation of Measure E5 in rural areas were previously identified in the comments submitted by the Acton Town Council in 2022; a few of these concerns (though not all) still persist. A possible solution would be to limit the implementation of Acton E5.1 to only those areas that are served by a municipal sewer system.

O2-5 (cont)

A typographical Error noted in the Performance Objectives for Measure E2:

The ATC recommends the following revision:

PERFORMANCE OBJECTIVES

Require all applicable new buildings ~~will~~ to be all-electric. Provide affordable housing set-aside to offset first cost.

O2-6

A typographical Error noted on page 1.13

The Acton Town Council recommends the following revision:

“The 2045 CAP is intended to be inclusive, accessible, and meaningful and prioritizes frontline”

O2-7

The New Emphasis on Local Renewable Generation Reflected in the Revised DCAP is Appreciated; However, the DCAP Misrepresents CPA’s Utility Scale Renewable Resources and the DEIR Fails to Consider Alternatives in a Manner Consistent with CEQA.

The Acton Town Council has endeavored to inform policymakers, lawmakers, and government agencies that there are two ways to achieve California’s renewable energy goals: one way destroys thousands of square miles of unspoiled desert lands with endless seas of black glass, decimates pristine viewsheds with industrial wind turbines and high voltage transmission lines, blights entire rural communities with miles of concentrated, industrial, and dangerous battery storage facilities, reduces energy resiliency, and unnecessarily costs ratepayers billions of dollars; the other way enhances community resiliency, improves electrical reliability, protects the environment, and saves ratepayers billions of dollars. The former relies on the development of remote, utility scale solar “farms” and remote, utility scale battery “farms” to produce power that is then transmitted

O2-8

via high voltage transmission lines over hundreds of miles to serve urban load pockets; and, because this alternative makes urban communities entirely reliant on a diffuse and fragile network of utility lines and energy nodes to meet all their energy needs, it is intrinsically non-resilient and arguably unreliable. The latter relies on the development of small scale generation and battery storage resources distributed throughout urban load pockets to supply local energy needs; and, because this alternative allows urban communities meet their own electrical demand without relying on remote generation and transmission facilities, it is intrinsically resilient and demonstrably reliable. Powerful utilities like Southern California Edison and powerful corporations like AES have a vested interest in substantially expanding utility-scale renewable generation and ensuring that distributed resources are both marginalized and minimized; as a result, their influence and their “voice” often overshadows our message. However, we are heartened because our message does appear to be “getting out”.

O2-8 (cont)

O2-9

In particular, the Acton Town Council is grateful that the revised DCAP includes a number of new provisions which appears to reflect our message that distributed generation increases community resiliency. For instance, Measure ES4 adds new Performance Objectives that will achieve community electricity generation capacity equal to the communitywide 24 hour average and will install microgrids in unincorporated areas.

O2-10

However, what is lacking in the DCAP and the DEIR is an acknowledgement that distributed generation provides specific and intrinsic advantages such as reducing environmental impacts to desert resources, reducing wildfire risks by avoiding transmission lines, and preserving mountain vistas that would otherwise be marred by new transmission lines; furthermore, and frankly, distributed generation is also the ONLY path to achieving the community resiliency that the DCAP claims to support.

O2-11

The Acton Town Council is also substantially concerned by revisions to the DCAP which incorrectly report the amount of utility scale solar renewable energy that “Clean Power Alliance” (“CPA”) supplies. Specifically, page 3-16 asserts that utility-scale solar is a relatively small portion of CPA’s renewable energy supply because CPA’s projected renewable electricity mix for 2035 is “30 percent utility-scale solar, 45 percent battery storage, 24 percent onshore wind, and 1 percent hydro”. What this statement fails to consider is that *the battery storage facilities included in these statistics are charged using energy that comes from utility scale solar farms*; this means that *all* of the renewable power that is supplied by CPA’s “45% battery storage” facilities *is actually generated by utility scale solar farms*. Claiming that 45% of CPA’s renewable energy comes from batteries is a gross misrepresentation; batteries do not supply renewable energy, they merely store whatever type of energy that is delivered to them and then release it at a later time. The *only* time that energy flowing from a battery farm is designated as “renewable energy” is when that battery farm is connected to a utility scale solar farm and is thereby charged solely with renewable energy. This *fact* is demonstrated in CPA’s 2022 Integrated Resource Plan (“IRP”) which establishes that only CPA battery facilities which are operated

O2-12

in conjunction with utility-scale solar farms (known as “hybrids”) are deemed to provide renewable energy; CPA’s standalone battery facilities (which are directly connected to the transmission grid and not to a utility scale solar farm) are *not* deemed to provide renewable energy”¹. Furthermore, because of SB100, all energy deliveries will be carbon free by 2030 regardless of whether the energy is delivered to the end user or to battery storage; therefore, within a few short years, most of the energy that will be used to charge all the batteries that are assumed in CPA’s IRP will come from utility scale solar farms because the long term plan of all utilities (including CPA) is to rely heavily on utility scale solar facilities to meet their power delivery obligations². Additionally, even though the energy resources provided by CPA’s standalone battery storage projects are not deemed to be renewable, they are in fact supplied by utility scale solar farms³; accordingly, the statement in the DCAP which claim that CPA’s utility scale solar projects comprise a relatively small portion of CPA’s renewable electricity mix is patently false. The Acton Town Council would be happy to discuss these matters with staff; in the meantime, we recommend the following correction to page 31 of the DCAP:

O2-12 (cont)

O2-13

O2-14

~~According to CPA’s 2022 Integrated Resource Plan (a CPUC proceeding to evaluate long term grid resource needs), the projected 2030 renewable electricity mix is approximately 23 percent utility scale solar, 53 percent battery storage, 21 percent onshore wind, and 2 percent hydro; the projected 2035 renewable electricity mix is 30 percent utility scale solar, 45 percent battery storage, 24 percent onshore wind, and 1 percent hydro³¹. This demonstrates that utility scale solar is a relatively small portion of CPA’s renewable energy supply mix through 2035. In addition, because of the large number of 100 percent Green Power customers, CPA expects to meet and exceed the State of California’s 30 million MTCO₂e GHG targets, even in its lowest renewables case. Note that these projections do not include behind the meter distributed energy generation like rooftop solar because DER electricity generation is not supplied by CPA.~~

O2-15

The County’s strategy to shift to a renewables-based electricity supply must ensure equitable access to affordable, local, and reliable energy sources.....

¹ See page 14 of CPA’s 2022 Integrated Resource Plan Summary:
https://cleanpoweralliance.org/wp-content/uploads/2022/11/cpasc_narrative_public.pdf.

² As shown on page 19 of CPA’s 2022 Integrated Resource Plan Summary, “Solar Resources” will be the primary renewable energy source for all utilities [Id at 19]. These “solar resources” are NOT distributed resources, they are utility scale solar resources.

³ CPA’s 100 MW “Luna” battery facility is located in a utility scale solar farm in the Antelope Valley and is charged by the utility scale solar farm that surrounds it [<https://www.youtube.com/watch?v=X-MBRhaFN4c>]. CPA’s 50 MW “High Desert” battery facility is located in a utility scale solar farm in the Antelope Valley and is charged by the surrounding utility scale solar farm [<https://cleanpoweralliance.org/2022/03/25/new-solar-plus-storage-clean-energy-facility-now-online/>]. CPA’s 100 MW “Sanborn” battery facility is located in a utility scale solar farm in the Antelope Valley and it is charged by the surrounding utility scale solar farm [<https://cleanpoweralliance.org/wp-content/uploads/2021/11/Sanborn-Release-Final-110821-1.pdf>]. Even CPA’s 75 MW “Desert Sands” project that was just approved will be charged by utility scale resources because it is connected to an SCE transmission substation (note: transmission substations and transmission lines *only* carry power from utility scale generation facilities).

The claim set forth in the DCAP and the DEIR that it is not possible to “quantify the renewable energy potentially facilitated by the 2045 CAP that would be provided by new utility-scale solar projects” is also incorrect. Information provided in CPA’s 2022 IRP, along with accessible data pertaining to CPA’s existing and pending “Power Purchase Agreements” (“PPAs”), provide a clear picture of the “mix” of renewable resources that CPA will use to serve its customers through at least 2035; so, the County can easily assess the portion of future CPA energy deliveries that will come from utility scale solar. The County also knows how much electrical energy is currently being used in unincorporated areas now and how much electrical energy will be used in unincorporated areas by 2035 and by 2045 once all of the CAP’s electrification and decarbonization measures are implemented. By reconciling this information, the County can easily “quantify the renewable energy potentially facilitated by the 2045 CAP that would be provided by new utility-scale solar projects”.

O2-16

Moreover, because the County *can* accurately quantify the renewable energy potentially facilitated by the 2045 CAP that would be provided by new utility-scale solar projects, the EIR that is certified for the DCAP *must* address the cumulative impacts of developing these utility scale solar projects and provide programwide mitigation measures. Such mitigation measures must address dust control (via mulch or gravel) as well as water supply impacts (water is needed to clean all the solar panels), wildlife impacts (hundreds of square miles of habitat will be destroyed and large numbers of migrating birds will be injured and killed when they crash into massive “seas of solar panels because they think they are landing on a lake), heat island impacts of hundreds of square miles of heat trapping surfaces (solar farms create just as much heat in rural urban areas as pavement creates in urban areas), and aesthetic impacts (resulting from the industrialization of hundreds of square miles of desert lands).

O2-17

In other words, the County does not have to know precisely the number utility scale solar farms that will result from CAP implementation in order to broadly assess their effects and develop programwide mitigation measures to address these effects; it does not even need to know precisely where these solar farms are located (although the California Energy Commission has already provided this information – see Attachment 1).

O2-18

Unfortunately, the DEIR fails to address any of these impacts and it fails to offer any mitigation measures to address these impacts. Instead, it states (incorrectly) that “it would be speculative to quantify the amount of renewable energy that could be facilitated by the Draft 2045 CAP that would be provided by new utility-scale solar projects” [page 3.1-13]. The DEIR then trivializes concerns regarding these impacts by stating that the renewable energy demand that will result from the DCAP “could be met in a variety of additional ways, other than through new utility-scale solar projects”; CPA’s 2022 IRP reveals this statement to be false because it clearly and quantitatively demonstrates that CPA will not meet its renewable energy demand in a “variety of ways”. Specifically, CPA’s IRP shows that *utility scale solar will be the primary mechanism that CPA will use to secure 100% renewable energy until at least 2035 and that the “additional ways” CPA will use to achieve its renewable energy targets account for only 20% of CPA’s renewable portfolio.* The DEIR also

O2-19

O2-20

disingenuously postulates that “a substantial amount of solar energy generation would likely occur on rooftops within the County”; this prediction is patently false for several reasons. First, rooftop solar only provides a small portion of current electrical demand. Second, because of new “net metering” regulations that became effective in April 2023 and which were approved by the CPUC on behalf of the major utilities, there will be very little new rooftop solar development in future. These facts, combined with information from CPA’s IRP indicating that rooftop solar provides a negligible portion of CPA’s electrical supply, utterly refute the DEIR’s claim a substantial amount of solar energy would likely occur on rooftops within the County. For all these reasons, Section 3.1.3.6 of the DEIR must be entirely revised to provide correct information and properly address the new utility-scale solar projects that will be facilitated by the 2045 CAP.

O2-20 (cont)

O2-21

Among other things, a Program EIR is *supposed to* “provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action” and the Lead Agency is *supposed to* use a Program EIR to consider “broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts” [CEQA Guidelines 15168. (b)]. Notably, these characteristics are not found in the DEIR’s discussion of alternatives for achieving the DCAP’s renewable energy targets; instead, the DEIR patronizingly dismisses the concerns raised by the Acton Town Council and others regarding the significant expansion of utility scale solar farms that will result from achieving DCAP targets by declaring that “renewable energy demand could be met in a variety of additional ways, other than through new utility-scale solar projects”.

O2-22

What the Acton Town Council is looking for in the DEIR is: 1) a broad discussion addressing the alternatives available to implement the DCAP’s renewable energy policies and achieve its renewable energy targets *and a comparison of their associated impacts*; and 2) a list of programwide mitigation measures that will minimize these effects. For instance, the DCAP recognizes that battery storage is critical to achieving its renewable energy objectives and it actively encourages the substantial expansion of battery storage systems by establishing Implementation Action ES3.6 to “Streamline and prioritize permitting for solar and battery storage projects”. Consistent with CEQA Guidelines 15168(b) the DEIR must consider the environmental implications of the battery storage expansion objectives advocated by the DCAP and in particular, address the Implementing Action that “streamlines and prioritizes” battery storage facilities; this is done by first broadly addressing the effects of, and alternatives for, implementing the DCAP’s battery storage expansion objectives and then formulating programwide mitigation measures to reduce these impacts. Specifically, what the DEIR *is supposed to do* is address the fact that there are two alternative strategies for expanding and streamlining battery storage: one alternative (distributed storage) is to distribute stored energy resources throughout the load pocket; this substantially increases community resiliency by delivering stored energy directly to load and it decreases transmission grid congestion because it does not put power on the transmission grid

O2-23

O2-24

O2-25

during peak hours (which, incidentally, provides the added benefit of substantially reduces ratepayer costs). This alternative also minimizes aesthetic impacts and wildfire risks because the battery facilities are distributed over a wide area and not concentrated in a manner that will cause a catastrophic fire event. The other alternative (utility scale storage) concentrates the battery storage units in remote rural locations and requires high voltage transmission lines to deliver the stored electricity to load. This alternative substantially decreases community resiliency, increases grid congestion (and, by extension, ratepayer costs), results in significant aesthetic impacts (because it converts hundreds of acres of rural open space to industrial use), and poses a significant wildfire risk (particularly if such facilities are located in or adjacent to a Very High Fire Hazard Severity Zone).

O2-25 (cont)

Based on the results of this alternatives analysis, the DEIR is supposed to develop programwide mitigation measures that address the environmental effects of the alternatives. For example, the DEIR is supposed to incorporate appropriate measures such as limiting the application of Action ES3.6 to only distributed battery storage projects because utility scale storage projects pose substantial risks and provide no community resiliency benefits and therefore should NEVER be streamlined (instead, they must be carefully evaluated through a discretionary review process).

O2-26

The DEIR is also supposed to adopt appropriate mitigation measures to reduce the significant effects posed by utility scale storage facilities such as “utility scale storage projects must be located outside of Very High Fire Hazard Severity Zones” and “utility scale storage projects must be located only in remote areas where there are no residences”.

O2-27

Furthermore, and in recognition of the significant community resiliency benefits and energy characteristics provided by distributed storage resources, the DCAP should include policies that prefer distributed storage resources and highly encourage them; it should also discourage utility scale storage unless it is located in remote, unpopulated areas outside VHFHSZs. The latter is particularly important because *environmental documents are supposed to inform and even shape the projects that they consider*; they are not supposed to merely analyze the project in isolation. Correspondingly, LCAP policies should reflect the results and conclusions set forth in the DEIR.

O2-28

The analysis provided above illustrates the type of “effects and alternatives” that Program EIRs are supposed to consider as they develop “broad policy alternatives and programwide mitigation measures”; unfortunately, the DEIR appears to have “missed the boat” because none of these elements are reflected in the Draft Program EIR. To ensure consistency with CEQA, the DEIR must be revised to properly consider the “effects and alternatives” of key DCAP measures and actions (including, but not limited to, energy storage expansion and renewable resource generation); it must also develop “broad policy alternatives and programwide mitigation measures” to address these effects and alternatives.

O2-29

Concerns with the DCAP’s “Aspirational Goal”

O2-30

The Acton Town Council continues to be troubled by the DCAP’s “aspirational” goal. It is noted that the CAP will be incorporated within the County General Plan, and when that

O2-31

happens, all CAP goals will become “binding” in that they will direct all future land use and development decisions; accordingly, all future County actions must ensure conformance with all CAP goals regardless of whether they are merely “aspirational” goals. The County is obligated to strive for achieving *all* goals expressed in the General Plan; thus, designating a goal as merely “aspirational” is meaningless in a General Plan context. Moreover, the intent of “goals” in a General Plan is to provide a general direction and express a “future end”; goals are not supposed to be quantified or time dependent⁴. In this sense, all General Plan goals are “aspirational”, thus designating one goal as “aspirational” makes little sense. Moreover, Figure ES-2 of the DCAP indicates that achieving “carbon neutrality” by 2045 is impossible, which suggests that the “aspirational goal” set forth in the DCAP cannot be, and will not be, achieved. This too is troubling because General Plan goals are supposed to be meaningful and achievable. Perhaps the DCAP’s 2045 Carbon Neutrality goal is designated as “aspirational” because it cannot be achieved in practice; if so, then this should be clarified in the DCAP.

O2-31 (cont)

O2-32

O2-33

Modifications to Measure E6 are Greatly Appreciated.

The Acton Town Council is very appreciative of the revisions that were made to the Implementing Actions established by Measure E6 for reducing indoor and outdoor water consumption. It is noted however that Implementing Acton E6.1 asserts that a future water conservation ordinance may include a net zero water requirement for new greenfield development. To address the problems that such a requirement would create if it were imposed in rural communities like Acton, the Acton Town Council herein incorporates by reference the comments provided on page 7 and elsewhere in the letter that we submitted to DRP on July 18, 2022 in response to the DCAP.

O2-34

The Acton Town Council Remains Very Concerned About the Vagueness of Action E4.1.

Implementing Action E4.1 requires “all buildings to perform energy efficiency retrofits at the point of sale”. As we commented previously, this Implementing Action is very vague and the DCAP provides no information whatsoever regarding the scope and extent of the “energy efficiency retrofits” that are contemplated. The potential costs of this action are in the hundreds of thousands of dollars: Will homeowners have to replace all their windows with triple glazing and replace all their insulation with material that has a better R factor and replace their roof with “cool roof” materials and replace all their appliances with appliances having the highest energy star rating before they can sell their home? This action could mean all of these things, or it could mean none of them. Page xiii of the DCAP does state that “deep retrofits to existing buildings” will be necessary to achieve carbon neutrality; is that what is anticipated by Acton E4.1? And if so, what are “deep retrofits” anyway? Why isn’t there any transparency in this Implementing Action? Page 3-52 of the DCAP states that implementation details for Action E4.1 can be found in “Appendix E”, but

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⁴ “General Plan Guidelines” issued by the Office of Planning and Research Page 381 [[https://opr.ca.gov/docs/OPR COMPLETE 7.31.17.pdf](https://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf)].

there are no implementation details in Appendix E. In fact, Appendix E adds to the confusion because it states that the “tracking metrics” for this Action are “Number of homes or businesses participating”; this suggests that property owners will be able to choose whether or not to “participate” in Implementing Action E4.1. This is in direct conflict with the plain language of Implementing Action E4.1 which clearly and unambiguously makes “participation” mandatory because it requires “all buildings to perform energy efficiency retrofits *at the point of sale*”. Equally troubling, Appendix E identifies various funding sources for Implementing Action E4.1; this gives a false impression that the compulsory retrofits mandated by Action E4.1 will be paid for by entities other than the property owner. This is incorrect. Because Implementing Action E4.1 is initiated at the “point of sale”, the funds required to comply with Action E4.1 will come solely from the property owner and not some benevolent government agency or non-profit group. The vagueness of, and the lack of transparency in, Implementing Action E4.1 makes it impossible for the Acton Town Council to provide any meaningful comment on its implications. The DCAP *must* be revised to explain what is meant by “energy efficiency retrofits” and identify the specific “energy efficiency retrofits” that are captured by Implementing Action E4.1. The Acton Town Council is confident that the County can provide this information; after all, the DCAP does estimate the GHG emission reductions that will be achieved through Implementing Action E4.1, thus the County has a reasonable knowledge of the various “energy efficiency retrofits” that are needed to achieve these GHG emission reductions.

O2-38 (cont)

O2-39

O2-40

Action E4.3 Will Result in Significant Impacts that Must be Addressed in the DCAP EIR. Implementing Action E4.3 appears to require the County to replace *all* the heat-trapping surfaces it owns and operates with cool or green surfaces; this includes all roads and highways and parking lots and hardscapes. Thousands of miles of roadways are owned and operated by the County and according to Action E4.3, they will all have to be replaced. Moreover, various alternatives (each creating its own unique effects) are available to replace roadways with cool or green surfaces; the DEIR is supposed to broadly address these alternatives and their effects and offer appropriate programwide mitigation measures, but it does not. Instead, the DEIR simply sidesteps all of these requirements by simply declaring that the “The Draft 2045 CAP is a policy-level document that does not include any site-specific designs or Proposals”. All of this violates CEQA. Any Program EIR developed for any “policy document” which make specific actions mandatory must broadly address the effects of, and alternatives for, these specific mandatory actions and present programwide mitigation measures to address them. The DEIR must be revised to comply with this requirement by considering key mandatory actions like E4.3 that are established by the DCAP and which have the potential to result in significant environmental effects.

O2-41

O2-42

The Acton Town Council Remains Troubled by “Strategy 9” Strategy 9 seeks to preserve agricultural lands from residential uses, but in Acton, residential uses and agricultural uses are one in the same, so the application of Strategy 9 in Acton is self-contradictory. Additionally, Strategy 9 improperly conflates “residential

O2-43

uses” with “urbanized uses”. Residential uses in Acton do not constitute urbanized uses because the Acton CSD ensures that 90% of parcels in Acton remain untouched; the only exception is when a property owner wants to initiate an agricultural or equestrian operation (in which case, the property owner must obtain a conditional use permit). Strategy 9 should be revised to resolve these contradictions in a manner that makes it clear how Strategy 9 will be applied in rural communities like Acton; until this revision is processed, the Acton Town Council is unable to provide meaningful comments on “Strategy 9” and we are unable to support it.

O2-43 (cont)

Revisions to Implementation Acton 6.3 are Appreciated

The Acton Town Council greatly appreciates revisions made to Implementation Action 6.3.

O2-44

Measure T6 Should Include a Prohibition on New Gasoline and Diesel Service Stations.

The purpose of Measure T6 is to “Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales” and according to the description provided by the DCAP, it is supposed to “Set targets for reducing total gasoline and diesel vehicle fuel sales”. However, Measure T6 does not include any Implementing Actions or Performance Objectives that address gasoline or diesel vehicle sales. Furthermore, it does not advocate for any process that addresses gasoline and diesel vehicle sales. One obvious Implementing Action that should be adopted by Measure T6 is to prohibit the development of any new commercial gasoline or diesel fueling stations (i.e., gas stations) in unincorporated Los Angeles County.

O2-45

The Acton Town Council is Concerned that Measure T5 Will Apply to New Commercial Developments in Acton and Thus Substantially Increase Already Significant Traffic Hazards.

The stated purpose of Measure T5 is to “Limit and Remove Parking Minimums” to “help reduce Vehicle Miles Traveled (“VMT”)”. Measure T5 only identifies parking requirements for new residential development and does not mention new commercial development, but the Acton Town Council presumes that Measure T5 will not be limited to just new residential development and that it will eliminate parking minimums and establish parking maximums for new commercial development. If so, then Measure T5 will substantially exacerbate already existing traffic and safety hazards in the Community of Acton. Specifically, because the County has (unfortunately) already approved many freeway-serving businesses in the vicinity of Crown Valley in Acton, the elimination of parking minimums and the establishment of parking maximums for commercial businesses in Acton will force all the freeway customers who frequent these businesses to illegally park along both sides of Sierra Highway and even in the middle of Sierra Highway. Sierra Highway is a heavily used major highway on which travelers typically drive at speeds exceeding 60 mph; there is also a mapped “truck stop” at this location which causes even more safety problems because of the slow-moving trucks turning onto and off of Sierra Highway. The Department of Public Works has posted “no parking” signs along Sierra Highway, but trucks and cars park there anyway; this makes it very difficult for drivers to see oncoming traffic and it makes turning onto and off of Sierra Highway very dangerous.

O2-46
CAP

If Measure T5 is implemented for new commercial businesses in Acton, then extant traffic and safety hazards will get even worse because it will cause even more freeway travelers to park on Sierra Highway (since they will not have anywhere else to park). Therefore, the Acton Town Council respectfully requests that Measure T5 be revised to clarify that it does not apply to new commercial businesses in rural areas that lack high quality transit.

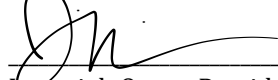
O2-46 (cont)
CAP

CONCLUSION

The Acton Town Council regrets that we did not have more time to consider the DCAP and review the enormous Draft Environmental Impact Report; it has been very difficult to process all the information that these documents provide in the 45 day review period that was allocated. These difficulties were compounded by the fact that the County is currently processing many new projects and development proposals in Acton; such developments always require immediate attention so they took up time that we would rather have spent on reviewing the DCAP and DEIR. Nonetheless, we have managed to put together the enclosed comments, and we respectfully request that the County incorporate them into the DCAP and the DEIR. If you have any questions or require additional information, please do not hesitate to contact us at atc@actontowncouncil.org.

O2-47

Sincerely;


Jeremiah Owen, President
The Acton Town Council

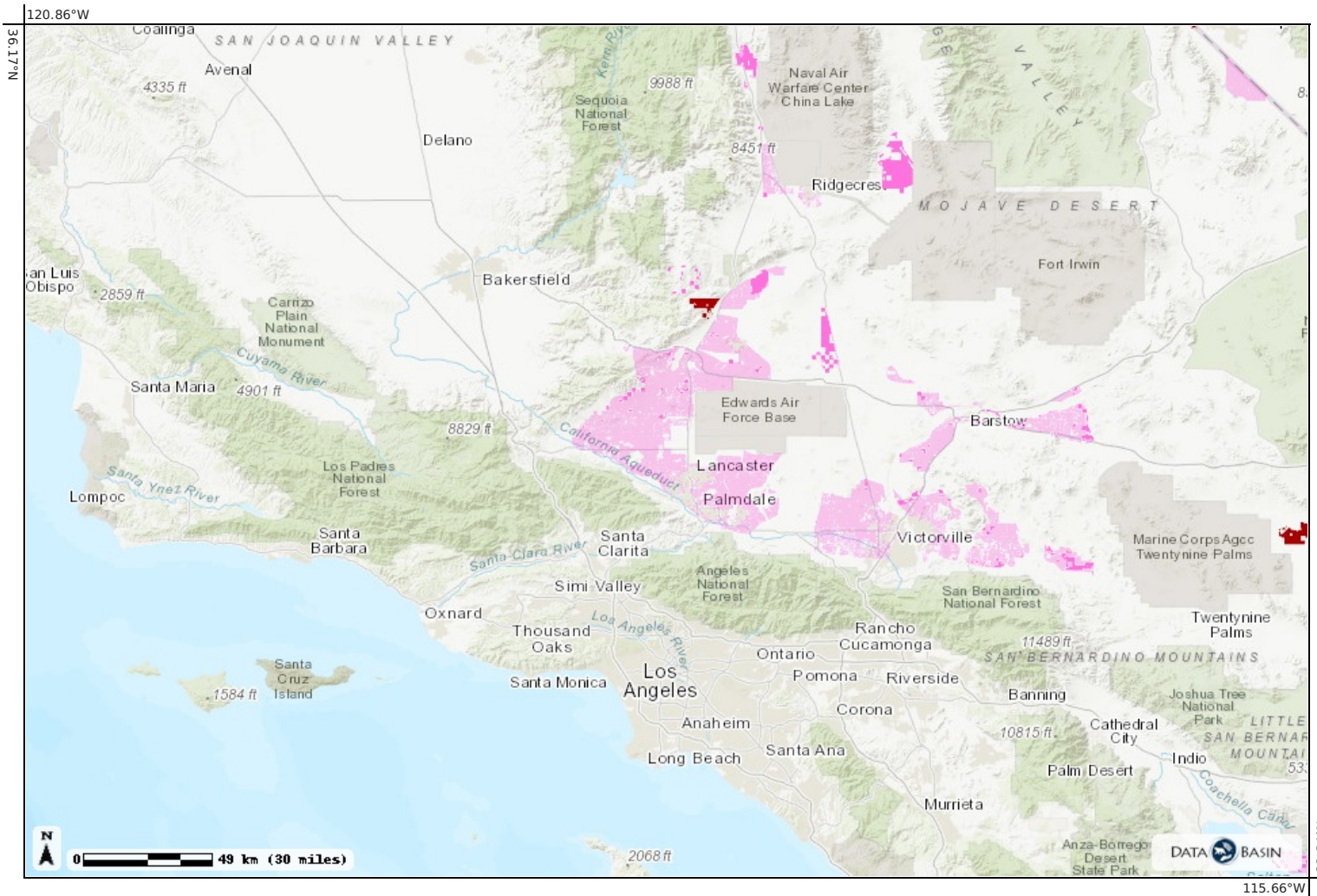
- cc: The Honorable Kathryn Barger, 5th District Supervisor [Kathryn@bos.lacounty.gov].
- Anish Saraiya, 5th District Planning and Public Works Deputy [ASaraiya@bos.lacounty.gov].
- Donna Termeer, 5th District Field Deputy [DTermeer@bos.lacounty.gov].
- Chuck Bostwick, 5th District Assistant Field Deputy [CBostwick@bos.lacounty.gov].

Legend

Development Focus Areas (DFA) and Variance Process Lands, DRECP Proposed LUPA and Final EIS

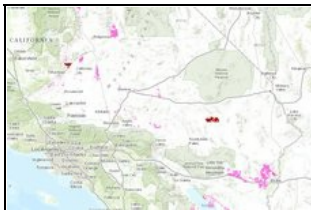
Displaying: AltCategor

- Development Focus Areas
 - Variance Process Lands
-
- Development Focus Areas, Preferred Alt.



Map Details

Datasets



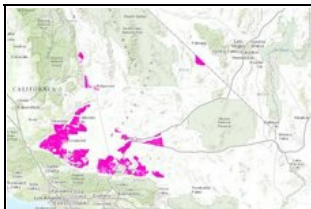
Development Focus Areas (DFA) and Variance Process Lands, DRECP Proposed LUPA and Final EIS

<https://reti.databasin.org/datasets/15fbd81db7984c22be7fc144fc262c47/>

Credits: Dudek

Layers:

- Development Focus Areas (DFA) and Variance Process Lands, DRECP Proposed LUPA and Final EIS



Development Focus Areas, Preferred Alt.

<https://reti.databasin.org/datasets/c77425c9badf460b9bbcf80517bcf91f/>

Credits: California Energy Commission, U.S. Bureau of Land Management, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Dudek, DRAFT Desert Renewable Energy Conservation Plan (DRECP) and EIR/EIS.

Layers:

- Development Focus Areas, Preferred Alt.

2.3.2.2 Letter O2: Acton Town Council

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

O2-1 The County acknowledges timely receipt of these May 15, 2023, comments on the Recirculated Draft PEIR. The County has reviewed them and provided responses below. The letter in its entirety is included in the administrative record for the Project, which will be considered by decision-makers prior to their decision on whether to certify the Recirculated Draft PEIR and approve the Project.

Regarding the comment's statement regarding sufficient time to review the Recirculated Draft PEIR, when a Draft PEIR is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 45 days nor should it be longer than 60 days. (CEQA Guidelines, § 15105(a).) CEQA presumes a 45-day review period to be sufficient. The Recirculated Draft PEIR was available for public review and comments for 45 days. While not required by CEQA, Recirculated Draft PEIR Section 1.4.3, *Recirculated Draft Program* (p. 1-7 et seq.), summarizes the types of changes the Recirculated Draft PEIR made to the Draft PEIR toward increasing the efficiency (by narrowing the necessary scope) of review particularly for commenters, like this one, who reviewed and commented on the prior Draft PEIR.

In response to the comment's statement incorporating by reference all previous comments submitted by the commenter, CEQA Guidelines section 15088.5(f)(1) provides that "[w]hen an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period." As explained in Recirculated Draft PEIR Executive Summary Section ES.1 (p. ES-1), Section 1.2 (p. 1-2), Section 1.4.3 (p. 1-7), and Section 1.4.4 (p. 1-9), the "Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR." The Recirculated Draft PEIR specifically states, "[c]omments on the May 2022 Draft PEIR, though part of the administrative record, will not be responded to in the Final PEIR; new comments must be submitted on the Recirculated Draft PEIR." This also was noted in the Notice of Availability for the Recirculated Draft PEIR posted on the project website at <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>. It was also noted in the April 19, 2023, email sent to interested parties registered on the project email list.

The commenter's previous submittals predate the issuance of the Recirculated Draft PEIR, are inapplicable, and do not address adequacy or accuracy of the analysis

included in the Recirculated Draft PEIR that post-dates the commenter’s January 2022 and April 2022 comments on the Draft PEIR. The comment’s general statement incorporating prior submittals by reference without some indication of their applicability or relevance does not provide the County with enough information to provide a detailed response in this Final PEIR or in the context of any further revisions to the Revised Draft 2045 CAP. To the extent the commenter believes its prior comments have continuing relevance, the burden was on the commenter to explain with sufficient specificity how they are relevant to the Recirculated Draft PEIR to enable the County to provide a detailed response. The County does not have the duty to decipher what comments on the May 2022 Draft PEIR the commenter believes to still be applicable from its previous comment letters, which is why the public has been given the opportunity to draft new comment letters on the Recirculated Draft PEIR.

- O2-2 Outreach that includes input from and consideration of diverse residents, businesses, and stakeholders will be an important component of a County-initiated building decarbonization ordinance. The Revised Draft 2045 CAP highlights the different considerations that rural and remote communities may face. The County commits to include rural populations in the stakeholder engagement processes in the consideration of the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities may face prior to implementation of the future County-initiated building decarbonization ordinance. The comment mentions life-safety risks but does not provide sufficient detail for the County to provide a detailed response in this Final PEIR. Nevertheless, the stakeholder engagement process prior to implementation of future ordinances would provide an opportunity for the public to express safety concerns that the County can address.
- O2-3 Northern rural areas face wider weather ranges than the southern portion of the County. Local decarbonization implementation will be informed by stakeholder input, including on wood-burning and fossil fuel-powered heating systems, as well as research on successful implementation and lessons learned in other parts of the state and country with similar inclement weather.
- O2-4 The County will carry forward the recommended criteria to future decarbonization outreach to allow all rural residents to provide input on the recommended criteria and future ordinances implementing the Revised Draft 2045 CAP Measures E1 and E2 and ensure all recommendations are considered and discussed before the adoption of ordinances implementing Revised Draft 2045 CAP Measure E1 and E2.
- O2-5 Regarding the comment’s concern regarding implementation of Measure E5.1 and its effect on rural communities that are not served by a municipal water system and/or rely on a septic system, the County recognizes that the GHG reduction measures are broad, that the unincorporated County features a diverse set of land uses, and that there is not a “one size fits all” solution to implementation of the Revised Draft 2045 CAP. For this reason, the Revised Draft 2045 CAP includes the Checklist

(Appendix F of the Revised Draft 2045 CAP), which allows for multiple pathways of compliance. As revised in Section F.2, *Checklist Instructions*, the Revised Draft 2045 CAP Checklist is only required if “a project applicant wants to use CEQA streamlining for GHG impacts; it is not required if a project-level environmental analysis of GHG impacts is conducted. As such, the Revised Draft 2045 CAP Checklist is voluntary.” Further, the Revised Draft 2045 CAP Checklist allows for alternative GHG emissions reduction measures to serve as replacements for any measures that are infeasible to implement for any given project. Therefore, the Revised Draft 2045 CAP and CEQA Streamlining process allows for flexibility in implementation of measures, including those listed under Measure E5. Thus, the County rejects the comment’s suggestion regarding limiting implementation of Action E5.1.

The comment also expresses concerns that implementation of Action E5.1 would result in discharges of nitrified and acidified organic waste into residential septic systems and increase in nitrate concentrations in septic system effluent. Checklist item #21 is a voluntary Tier 2 item that encourages residential graywater systems that meet appropriate regulatory standards and the installation of dual plumbing for the use of recycled water. All dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems would meet regulatory standards for nitrate concentrations in septic system effluent. In addition, as explained in Recirculated Draft PEIR Chapter 3.17 *Utilities and Service Systems*, Measure E5 encourages the development of gray water systems in new developments, but does not require their installation. This allows for flexibility in areas where diverting gray water may adversely affect septic systems or package treatment facilities. Septic systems would continue to be permitted through LA County, ensuring that any new gray water systems could be installed to be compatible with permitted septic systems. Septic systems in new residential development would be designed to operate with dual waste piping. (Recirculated Draft PEIR p. 3.17-14).

Please refer to Section F.2, Step 4, *Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions*, for more information.

- O2-6 This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses general comments received on the Revised Draft 2045 CAP.
- O2-7 This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses general comments received on the Revised Draft 2045 CAP.

O2-8 See Section 2.2.1, *General Response 1: CEQA Alternatives*, which addresses the comment’s suggested alternative regarding small scale generation and battery storage resources that are distributed throughout urban load pockets and explains why the Recirculated Draft PEIR considers alternatives in a manner consistent with CEQA.

The County acknowledges the comment’s stated preference for small-scale, distributed renewable energy generation and battery storage over utility-scale developments. While the commenter broadly focuses on California’s renewable energy goals, the Revised Draft 2045 CAP focuses on GHG emissions reduction goals for the County that include, but are not limited to, energy. The Revised Draft 2045 CAP, as described in Recirculated Draft PEIR Chapter 2, *Project Description* (p. 2-12 et seq.), includes GHG emissions reduction strategies, measures, and actions that address a multitude of environmental resource areas, including transportation, solid waste, and natural resources, as well as energy. The Revised Draft 2045 CAP does not rely on renewable energy development within the County to achieve its GHG emissions reduction goals, acknowledges that utility-scale energy projects, distributed energy projects or a combination of the two could facilitate Revised Draft 2045 CAP measures and actions, and analyzes impacts as if utility-scale development would occur.

Recirculated Draft PEIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP* (p. 3.1-13), expressly acknowledges that future projects facilitated by Draft 2045 CAP measures and actions, including “distributed generation via solar roofs, community solar, or microgrids; battery storage and electric vehicle charging stations; utility-scale solar photovoltaic (PV) development; and/or energy transmission and subtransmission facilities” may cause adverse environmental impacts. The Recirculated Draft PEIR provides two full pages (p. 3.1-13 et seq.) discussing new utility-scale solar projects and why the County believes that renewable energy demand could be met in a variety of ways other than through new utility-scale solar projects, such as further development of rooftop solar. Nonetheless, because the future development of new utility-scale solar projects could be part of the mix of projects to meet the renewable energy demand, the impacts of such new utility-scale solar projects are qualitatively analyzed throughout Recirculated Draft PEIR Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures* (p. 3.1-1 et seq.). See, for example, Recirculated Draft PEIR Section 3.2, *Aesthetics*, pp. 3.2-8, 3.2-10 to 3.2-12, 3.2-17 to 3.2-18, and 3.2-22 regarding indirect impacts of the Project as pertaining to new solar development and p. 3.2-19 regarding related cumulative effects.

Recirculated Draft PEIR Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, also analyzes the impacts of battery energy storage projects, which include impacts on those resource areas suggested by the comment. See Section 3.1.3.6, p. 3.1-15, which states: “The qualitative programmatic analysis considers the potential impacts of new utility-scale, ground-mounted solar PV projects, and associated infrastructure, e.g., battery storage, substation or transmission projects”. For discussion of impacts on specific environmental resource areas associated with battery energy storage projects facilitated by 2045 CAP measures and actions, please see

Section 3.2, *Aesthetics* (pp. 3.2-10, 3.2-16), Section 3.3, *Agriculture and Forestry Resources* (p. 3.3-13), Section 3.5, *Biological Resources* (pp. 3.5-18, 3.5-19, 3.5-21, 3.5-22, 3.5-24, 3.5-25), Section 3.6, *Cultural Resources* (pp. 3.6-23, 3.6-27, 3.6-30), Section 3.7, *Energy* (pp. 3.7-5, 3.7-6), Section 3.9, *Greenhouse Gas Emissions* (p. 3.9-10 et seq.), Section 3.10, *Hazards and Hazardous Materials* (p. 3.10-23), Section 3.12, *Land Use and Planning* (pp. 3.12-21, 3.12-22), Section 3.13, *Noise* (pp. 3.13-18, 3.13-20, 3.13-21), Section 3.14, *Population and Housing* (p. 3.14-9), Section 3.15, *Transportation* (p. 3.15-21), Section 3.16, *Tribal Cultural Resources* (p. 3.16-10), Section 3.17, *Utilities and Service Systems* (pp. 3.17-14, 3.17-21), and Section 3.18, *Wildfire* (pp. 3.18-23, 3.18-24, 3.18-28).

Further, the Recirculated Draft PEIR expressly acknowledges and considers agency and public input received regarding the impacts of utility scale solar development that could be facilitated by the Revised Draft 2045 CAP measures and actions. See, for example, Section 3.2 *Aesthetics* (p. 3.2-1), Section 3.4, *Air Quality* (p. 3.4-1), Section 3.5, *Biological Resources* (p. 3.5-1), Section 3.6, *Cultural Resources* (p. 3.6-1), Section 3.8, *Geology and Soils* (p. 3.8-1), Section 3.11, *Hydrology and Water Quality* (p. 3.11-1), Section 3.13, *Noise* (p. 3.13-1), Section 3.17, *Utilities and Service Systems* (p. 3.17-1), and Section 3.18, *Wildfire* (p. 3.18-1).

- O2-9 The relative success of messaging regarding the types of renewable energy development is beyond the scope of the CEQA environmental review process for the Revised Draft 2045 CAP and does not raise significant environmental issues related to the Recirculated Draft PEIR, such that no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).
- O2-10 The comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP.
- O2-11 CEQA does not require an assessment of comparative benefits of multiple, different approaches for facilitating the Revised Draft 2045 CAP measures and actions. The Recirculated Draft PEIR analyzes the significant environmental impacts of the Revised Draft 2045 CAP as a whole within each environmental resource area within the Recirculated Draft PEIR. For a specific discussion regarding the comment's suggested distributed energy generation alternative, please see General Response 1. As explained in General Response 1, distributed generation and storage are not without adverse environmental impacts, which are introduced in Recirculated Draft PEIR Section 3.1.3.6 and are quantitatively analyzed throughout Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures* (p. 3.1-1 et seq.).
- O2-12 to O2-15 For discussion regarding the comment's concern about the amount of utility scale solar renewable energy that Clean Power Alliance (CPA) supplies, see Response to

Comment O2-16 below. The remainder of the comments are on the Revised Draft 2045 CAP and do not raise significant environmental issues related to the Recirculated Draft PEIR such that no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP.

O2-16 The text in this comment included in quotation marks does not appear in the Recirculated Draft PEIR. The Recirculated Draft PEIR does not say quantification is not possible; instead, it says that it would be *speculative*. Specifically, Recirculated Draft PEIR Section 3.1.3.6 (p. 3.1-13 et seq.) states:

“Regarding new utility-scale solar projects, it would be speculative to quantify the amount of renewable energy that could be facilitated by the Revised Draft 2045 CAP that would be provided by new utility-scale solar projects, or identify where that demand would be met, since the increased renewable energy demand could be met in a variety of additional ways, other than through new utility-scale solar projects. In particular, the importation of renewable energy into the unincorporated areas by providers such as the Clean Power Alliance (CPA) and further development of rooftop solar are described below as reasonable, feasible steps on the County’s overall path to meeting its targets and advancing toward its goal of carbon neutrality. However, because the future development of new utility-scale, ground-mounted solar PV could be part of the mix, the impacts of such future development are evaluated qualitatively in this EIR.”

The Recirculated Draft PEIR provides two full pages (p. 3.1-13 et seq.) discussing new utility-scale solar projects and why renewable energy demand could be met in a variety of ways other than through new utility-scale solar projects, such as further development of rooftop solar. Nonetheless, because the future development of new utility-scale solar projects could be part of the mix of projects included to facilitate the Revised Draft 2045 CAP measures and actions to meet the renewable energy demand, the impacts of such new utility-scale solar projects are qualitatively analyzed throughout Recirculated Draft PEIR Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures* (p. 3.1-1 et seq.). See, for example, Section 3.2, *Aesthetics*, pp. 3.2-8, 3.2-10, 3.2-11, 3.2-12, 3.2-17, 3.2-18, and 3.2-22 regarding indirect impacts of the Project as pertaining to new solar development and p. 3.2-19 regarding related cumulative effects.

In response to the comment’s suggestion that an ability to identify a number of megawatts that could be generated by utility-scale solar developments through 2035 would be possible based in part on pending agreements, such as the Power Purchase Agreements that have not been finalized, the County asserts such identification would not be accurate or helpful to decision-makers in their consideration of the environmental impacts of the Revised Draft 2045 CAP as a whole.

The comment states that the CPA’s 2022 Integrated Resource Plan includes information regarding the amount of utility scale solar needed to meet CPA’s customer demands through 2035, and therefore that the County could determine the amount of renewable energy that could be facilitated by the Revised Draft 2045 CAP that would be provided by new utility-scale solar projects. According to the CPA’s 2022 Integrated Resource Plan, utility-scale solar will expand from 341 megawatts in 2023 to 1,959 megawatts in 2035 under its preferred Conforming Portfolio.³ However, this number represents CPA’s entire service territory, which includes 32 communities across Los Angeles and Ventura counties, not just the unincorporated LA County. As such, it would be speculative to estimate what subset of utility-scale resources would be needed for unincorporated LA County alone.

Further, as noted in the Revised Draft 2045 CAP, since October 2022, all customers in unincorporated Los Angeles County are automatically enrolled in CPA’s 100 percent renewable energy option and all residents and businesses in unincorporated LA County have been receiving 100 percent renewable energy—wind, solar, geothermal—from CPA (Revised Draft 2045 CAP, p. 3-17). As such, the Revised Draft 2045 CAP itself may not facilitate any new utility-scale solar projects not already anticipated and planned for by the CPA to meet their customer demand.

Further, the comment does not question the accuracy of the Recirculated Draft PEIR’s statement that quantification would be speculative and accordingly, the County has not undertaken the suggested reconciliation.

O2-17 For the reasons explained in Response O2-16, the County disagrees with the assertion that quantification of the utility-scale solar energy that could be facilitated by the Revised Draft 2045 CAP measures and actions would be accurate and, consistent with CEQA, declines to speculate.

The comment generally recommends incorporation of unspecified programmatic mitigation measures to address potential impacts from utility-scale solar projects but does not provide specific suggestions. However, the Recirculated Draft PEIR identifies reasonable, feasible programmatic mitigation measures, to avoid or reduce significant environmental impacts, including cumulative environmental impacts, of future projects implementing Revised Draft 2045 CAP measures and actions. See, for example, Recirculated Draft PEIR:

- Section 3.4.2.4 (p. 3.4-74), which analyzes the cumulative impacts of future facilities facilitated by the Revised Draft 2045 CAP measures and actions “in areas prone to high wind and/or in areas with exposed surfaces, like solar farms,” and that “could result in fugitive dust emissions from vehicle travel on unpaved surfaces or other similar types of operational activities.” Implementation of Mitigation Measures 3.4-1 (*Construction Emissions*), 3.4-2 (*Operational Fugitive Dust Emissions*), and 3.4-3 (*Architectural Coating VOC Emissions*), described on

³ Clean Power Alliance, 2022. *2022 Integrated Resource Plan*. November 1. Page 18. Available at https://cleanpoweralliance.org/wp-content/uploads/2022/11/cpac_narrative_public.pdf. Accessed August 2023.

pages 3.4-51 to 3.4-52, would reduce the impacts associated with construction emissions.

- Section 3.11.2.4 (p. 3.11-31 et seq.), which analyzes the cumulative hydrology and water quality impacts of future facilities facilitated by the Revised Draft 2045 CAP measures and actions, including p. 3.11-26 regarding water supply impacts “associated with utility-scale ground-mounted solar development.” Implementation of Mitigation Measure 3.10-2, described in Section 3.10.2.3 (p. 3.10-23) would ensure that hazardous waste is properly managed.
- Section 3.5.2.4 (p. 3.5-27 et seq.), which analyzes the cumulative biological resources impacts of future facilities facilitated by the Revised Draft 2045 CAP measures and actions, including p. 3.5-27 et seq., which concludes in the context of Impact 3.5-7 that the Project, as a result of projects facilitated by Draft 2045 CAP, would result in a significant unavoidable cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. The Recirculated Draft PEIR expressly acknowledges on pages 3.5-18 and 3.5-19 that the Revised Draft 2045 CAP “may facilitate new development such as utility-scale energy projects...in the Antelope Valley or other rural areas and could affect special-status species by direct removal or conversion of suitable habitat or indirectly through introduction of barriers to movement or reflective surfaces.”
- Section 3.2.2.4 (p. 3.2-19 et seq.), which analyzes the cumulative aesthetics impacts of future facilities facilitated by the Revised Draft 2045 CAP, including in the context of Impact 3.2-6, which concludes that projects facilitating the Revised Draft 2045 CAP measures and actions would cause a significant unavoidable cumulative impact to scenic vistas due in part to the “incremental impacts of the Project, together with the incremental impacts of past, present and reasonably foreseeable future projects, including past and present utility-scale solar projects in the Antelope Valley.”

Heat island impacts are not among the CEQA Guidelines Appendix G environmental checklist considerations and this comment does not indicate what potential adverse impact on the physical environment would result from a heat island effect created by a project facilitated by the Revised Draft 2045 CAP measures and actions such that a specific response cannot be provided. Nonetheless, see Recirculated Draft PEIR Section 3.9, *Greenhouse Gas Emissions*, which analyzes the potential climate change-related impacts of the Project as a whole.

The County is aware that temperatures can be between approximately 1 degree Fahrenheit (°F) and 7 °F higher in cities than in rural areas because cities contain masses of darker-colored objects such as buildings and paved areas that emit more

heat than lighter-colored objects and that cause heat to dissipate more slowly⁴⁻⁵⁻⁶⁻⁷ and that the higher density of vegetation in rural areas also contributes to cooling. Solar projects resulting from facilitating Revised Draft 2045 CAP measures and actions that would require vegetation clearance and the introduction into the landscape of elements of a built environment could result in the creation of a heat island effect that is similar to that which can occur in urban areas.

Research regarding the potential for photovoltaic heat island effects has been limited and few studies have analyzed the potential for any such effect to extend laterally. Fthenakis and Yu from Columbia University and Brookhaven National Laboratory combined models with field data to determine the extent to which photovoltaic facilities altered ambient air temperatures.⁸ Their research demonstrated some increase in temperatures above solar facilities relative to surrounding ambient temperatures (1.9 degrees Celsius [$^{\circ}\text{C}$], approximately 3.4°F). However, the researchers determined that the photovoltaic facility did not result in long term changes to ambient temperatures that could lead to adverse micro-climate changes. Additionally, the researchers found that increases in temperatures completely dissipated approximately 16-59 feet (5-18 meters) above the facility and that thermal energy “promptly dissipated” with distance from the facility.⁹

A 2016 paper authored by Barron-Gafford et al. determined that temperatures over a photovoltaic facility were consistently 7.2°F (4°C) higher at night than surrounding temperatures.¹⁰ The researchers determined that their results indicated that solar facilities can lead to a photovoltaic heat island effect. However, they acknowledged that their research did not have sufficient data to determine the extent to which the effect extends laterally from the facility. Since the 2016 study, Barron-Gafford et al. conducted further research, finding that at 98 feet (30 meters) from the edge of the solar arrays, the difference between temperatures recorded and surrounding temperatures were greatly reduced. At 131 feet (40 meters) from the edge of the array no difference was found between temperatures recorded by probes and the surrounding ecosystem.¹¹ Before any specific future project facilitating the Revised Draft 2045 CAP measures and actions could be analyzed and determined to result in a

⁴ U.S. Environmental Protection Agency (US EPA), 2023b. Heat Island Effect. <https://www.epa.gov/heatislands#:~:text=Heat%20islands%20are%20urbanized%20areas,as%20forests%20and%20water%20bodies>. Updated July 10, 2023.

⁵ US EPA, 2022. Learn About Heat Islands. <https://www.epa.gov/heatislands/learn-about-heat-islands>. Updated September 2, 2022.

⁶ Bornstein, Robert D., 1968. “Observations of the Urban Heat Island Effect in New York City.” <https://journals.ametsoc.org/doi/pdf/10.1175/1520-0450%281968%29007%3C0575%3A00TUHI%3E2.0.CO%3B2>. May 8, 1968.

⁷ Donovan, Matt, 2010. “Memo: Impact of PV Systems on Local Temperature.” July 6, 2010.

⁸ Fthenakis, Vasilis and Yuanhao Yu, 2013. “Analysis of the potential for a heat island effect in large solar farms.” Photovoltaic Specialists Conference (PVSC) June 16–21, 2013.

⁹ Fthenakis and Yu, 2013.

¹⁰ Barron-Gafford, G. A., Minor, R.L., Allen, N.A., Cronin, A.D., Brooks, A.E., Pavao-Zuckerman, M.A. 2016. “The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperatures.” *Nature*. October 13, 2016.

¹¹ Barron-Gafford, Greg, 2018. Phone call between Jessica O’Dell (ESA) and Greg Barron-Gafford (University of Arizona). March 16, 2018.

cumulative impact, other past, present, or reasonably foreseeable future development would have to be identified within sufficient proximity for the incremental impacts to combine, i.e., within 131 feet of one another.

Given that there are no significance thresholds for the photovoltaic heat island effect and given the limited number of studies regarding this effect, there is no evidence of a potential increase in ambient temperature from potential future utility-scale solar projects facilitating the Revised Draft 2045 CAP measures and actions would significantly impact human health or the environment.

O2-18 CEQA does not require the Recirculated Draft PEIR to include a precise number or location of utility-scale solar farms that could result through facilitating Revised Draft 2045 CAP measures and actions but, rather, CEQA requires a broad assessment of such project's environmental impacts. The Recirculated Draft PEIR provides the necessary level of environmental impact analysis required under CEQA.

Responding to the comment's concern regarding mitigation measures to address impacts of utility-scale solar projects that could be facilitated by Draft 2045 CAP measures and actions, the Recirculated Draft PEIR, Table ES-2, *Summary of Impacts and Mitigation Measures*, summarizes the Revised Draft 2045 CAP's environmental impacts, lists mitigation measures for significant impacts, and for each impact indicates levels of significance after mitigation. None of the proposed measures or actions indicate locations where individual projects, such as utility-scale solar development projects, would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Revised Draft 2045 CAP measures and actions are unknown at this time. (Recirculated Draft PEIR, p. ES-19.) However, the Recirculated Draft PEIR includes mitigation measures that would apply to utility-scale solar projects, such as Mitigation Measure 3.2-2: *Visual Screening and Other View Protection Measures*, which requires construction of a visual barrier of sufficient height to mitigate significant aesthetic impacts of projects that would have a substantial adverse effect on a scenic vista. (Recirculated Draft PEIR, p. ES-20.) See also Mitigation Measure 3.3-1: *Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development*, which would avoid siting-related impacts of utility scale renewable energy projects on agricultural resources (Recirculated Draft PEIR, p. ES-22), and Mitigation Measure 3.18-3: *Fire Safety During Construction and Operation*, which would require implementation of visual inspections protocol that includes the identification of fire safety and prevention measures for project-specific infrastructure that can ignite fires, such as power lines and battery storage facilities (Recirculated Draft PEIR, p. ES-50).

See Response O2-8 for a specific discussion regarding impact analyses of utility-scale solar projects and Response O2-17 for further, specific discussion of applicable mitigation measures.

- O2-19 The Recirculated Draft PEIR adequately analyzes the impacts of utility-scale solar development projects that could be facilitated by the Revised Draft 2045 CAP measures and actions and, contrary to the statement in this comment, does not trivialize them. See Responses O2-8 and O2-17. Responding to the comment’s concern regarding mitigation measures to address impacts of utility-scale solar projects that could be facilitated by Draft 2045 CAP measures and actions, please refer to Response to Comment O2-18. See also Response O2-16 regarding the Recirculated Draft PEIR’s discussion of utility-scale solar development projects that could be implemented by facilitating the Revised Draft 2045 CAP measures and actions and speculation regarding quantification of renewable energy that could be facilitated. The comment relies on uncertain information (including the pending projections identified in Comment O2-16 that have not been finalized) through 2035. A CEQA-compliant analysis of the environmental impacts of the Revised Draft 2045 CAP must analyze the whole of the Project, i.e., through the year 2045. Because it would be speculative to quantify the amount of renewable energy that could be facilitated by the Revised Draft 2045 CAP for the whole of the Project, the County disagrees with the suggestion that the analysis approach within the Revised Draft 2045 CAP and Recirculated Draft PEIR is inadequate for purposes of CEQA.
- O2-20 Within the bounds of CEQA, reasonable minds can reach different conclusions based on the same information. (See *Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261.) Here, the statement in Recirculated Draft PEIR Section 3.1.3.6 (p. 3.1-14) that “[s]eparate from renewable energy provided by CPA, a substantial amount of solar energy generation would likely occur on rooftops within the County” is based on information presented and conclusions reached in a 2016 National Renewable Energy Laboratory (NREL) study and in a 2020 study by the Institute of the Environment and Sustainability at the University of California, Los Angeles (UCLA). (See Recirculated Draft PEIR, p. 3.1-14.) The statements in this comment that “rooftop solar only provides a small portion of current electrical demand” and that CPA’s IRP indicate that “rooftop solar provides a negligible portion of CPA’s electrical supply” actually further supports the Recirculated Draft PEIR’s statement because it identifies rooftop solar as a potential area of development. The commenter’s opinions about the outcome of the 2023 net metering regulations are acknowledged, but in light of substantial evidence cited and relied upon in the Recirculated Draft PEIR, the County disagrees with the opinions expressed in the comment that the Recirculated Draft PEIR is disingenuous or “patently false” and instead maintains that evidence supports a conclusion that a substantial amount of solar energy would likely occur on rooftops within the County. The CPUC’s efforts to procure over 21,500 megawatts of new electricity resources from 2021 to 2026, including rooftop solar (CPUC 2021b), supports Measure ES3 and associated Actions ES3.1, ES3.2, and ES3.3, which would facilitate rooftop solar photovoltaic installations for both existing residential and commercial buildings. (See Recirculated Draft PEIR, p. 3.7-13.)

- O2-21 For the reasons explained above, the Recirculated Draft PEIR, including Section 3.1.3.6, has provided correct information and properly addresses utility-scale solar projects such that the Recirculated Draft PEIR has not been revised.
- O2-22 As explained in Recirculated Draft PEIR Section 1.3, *Program-level Analysis and Tiering* (at pp. 1-2 and 1-3), a program EIR is a type of EIR prepared pursuant to CEQA that is used to evaluate a plan or program that has multiple components or actions that are related either geographically; as logical parts in the chain of contemplated actions; in connection with application of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways (Public Resources Code sections 21068.5 and 21093; CEQA Guidelines section 15168(a)). Consistent with CEQA, the Recirculated Draft PEIR evaluates general impacts of the plan or program (i.e., the Revised Draft 2045 CAP), but does not examine the potential site-specific impacts of the many individual projects implementing the Revised Draft 2045 CAP measures and actions that may be proposed in the future.

The County disagrees with the comment’s suggestion that a program EIR is “supposed to” do any of the things identified in the comment on the basis of CEQA Guidelines section 15168(b). Instead of identifying aspirational goals for a program EIR, CEQA Guidelines section 15168(b) identifies potential advantages of using one (“Use of a program EIR can provide the following advantages...” (emphasis added)). Further, the Recirculated Draft PEIR does evaluate a range of “broad policy alternatives” and does propose programmatic mitigation measures. The range of alternatives evaluated in the Recirculated Draft PEIR includes a breadth of policy outcomes, from achieving carbon neutrality faster than 2045 and taking no County-directed action to reduce GHG emissions in the unincorporated areas at all, and explores other approaches to achieve most of the basic Project objectives other than the approach identified by the Project as proposed in the Recirculated Draft PEIR. See Section 2.2.1, *General Response 1: CEQA Alternatives*, regarding the Recirculated Draft PEIR’s discussion and analysis of alternatives, specifically addresses the comments about alternatives for achieving renewable energy targets, and explains why CEQA does not require consideration of such alternatives.

- O2-23 See Section 2.2.1, *General Response 1: CEQA Alternatives*, which addresses comments about alternatives, including suggestions about renewable energy alternatives, and explains why CEQA does not require consideration of such alternatives. See Response O2-8 regarding renewable energy impact analyses and mitigations addressed in the Recirculated Draft PEIR.
- O2-24 See Section 2.2.1, *General Response 1: CEQA Alternatives*, which addresses comments about alternatives, including suggestions about battery storage alternatives, and explains why CEQA does not require consideration of battery storage alternatives.

In response to the comment's general suggestion for programmatic mitigation measures, the comment does not provide specific examples of mitigation such that a specific response to suggestions are possible. Regardless, see Response O2-8 regarding the Recirculated Draft PEIR's analysis of the potential impacts of battery storage and Response O2-17 regarding feasible mitigation measures to avoid or reduce significant environmental impacts.

O2-25 In response to the comment's discussion regarding two alternative strategies for expanding and streamlining battery storage and each strategy's alleged environmental impacts, the Recirculated Draft PEIR project description could accommodate either strategy. One performance objective of Measure ES4: *Increase Energy Resilience* is to achieve community electricity storage and generation capacity equal to the community-wide 24-hour average usage by 2035/2045; this could be achieved through a variety of means and will likely need a combination of distributed storage and utility-scale storage. Specifically, Action ES4.4 calls for feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management and peak shaving to increase grid resilience. See Section 2.2.1, *General Response 1: CEQA Alternatives*, which addresses comments about alternatives, and explains why CEQA does not require consideration of battery alternatives.

To the extent this comment suggests that the County could require exclusively distributed energy development (generation or storage) as a mitigation measure to avoid or substantially reduce the significant impacts of utility scale energy facilities, see *General Response 1: CEQA Alternatives*, which explains that distributed energy systems also can cause significant adverse impacts and acknowledges that experts may differ about the proper balance of resource impacts between distributed energy facilities and utility-scale ones.

The Recirculated Draft PEIR identifies mitigation measures to reduce significant impacts of renewable energy projects; see response to comment O2-8 above for a discussion of wildfire and aesthetic impacts and programmatic mitigation measures. Regarding mitigation measures for energy storage projects, see Mitigation Measure 3.3-1, *Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development*, and Mitigation Measure 3.18-3, *Fire Safety During Construction and Operation*. Regarding mitigation measures specifically for solar energy projects, see Mitigation Measure 3.2-1, *Alternative Design*, and Mitigation Measure 3.10-2 ("The County shall require applicants of solar PV installation projects..."). Additionally, Mitigation Measure 3.4-1, *Construction Emissions*, expressly relates to renewable energy without distinguishing between storage projects and solar projects. As indicated in Table 4-6, *Summary of Impacts of the Project and Alternatives*, is clear when mitigation that was developed in the Project context also would apply to one or more of the alternatives. For example, see page 4-25 regarding Mitigation Measure 3.3-1 and page 4-46 regarding Mitigation Measure 3.18-3. The

mitigation measures identified in the Recirculated Draft PEIR to minimize impacts of renewable energy generation and storage projects would apply whether the cause of the significant impact were distributed or utility-scale.

- O2-26 See Section 2.2.1, *General Response 1: CEQA Alternatives*, which addresses comments about alternatives, and explains why CEQA does not require consideration of battery alternatives. Regarding the applicability of mitigation measures identified in the Recirculated Draft PEIR, see Response O2-25. The Recirculated Draft PEIR's analysis of hazards and hazardous materials impacts took into consideration impacts associated with utility-scale solar projects. The Recirculated Draft PEIR determined the Project would result in less than significant impacts or less than significant impacts with mitigation incorporated on hazards and hazardous materials. (See Recirculated Draft PEIR, pp. 3.10-20-21, 3.10-24-32.)

Further, any utility-scale solar development that would occur in an unincorporated area of the County would be regulated by the County's Renewable Energy Ordinance and require discretionary review. The Recirculated Draft PEIR considers the County's Renewable Energy Ordinance as an independently enforceable regulation in the regulatory setting of the Revised Draft 2045 CAP. See, for example, discussion of how the ordinance relates to aesthetics (p. 3.2-6) and land use and planning (p. 3.12-11). The County's Renewable Energy ordinance contains a suite of provisions to minimize the impacts of utility-scale, ground-mounted solar energy facilities on visual resources, including setbacks, provisions requiring the placement of transmission lines underground, and the incorporation of measures to minimize fugitive dust. (Recirculated Draft PEIR, p. 3.2-10.) However, as discussed in the Recirculated Draft PEIR p. 3.2-11, depending on the size and scale of such utility-scale projects facilitated by the Revised Draft 2045 CAP measures and actions, compliance with applicable plans, policies, and regulations may not be sufficient to reduce impacts to a less than significant level; as such, the Recirculated Draft PEIR finds related aesthetic impacts to be significant. Such future projects would undergo independent CEQA analysis and mitigation measures to reduce this impact would be implemented if the projects have significant impacts.

- O2-27 Regarding mitigation measures to minimize impacts of renewable energy, see Response O2-25.

Regarding the suggestion that the Recirculated Draft PEIR should have included a mitigation measure to preclude the location of utility-scale storage facilities outside of Very High Fire Hazard Severity Zones, see Mitigation Measure 3.18-3: *Fire Safety During Construction and Operation*, which requires all future applicants and/or their contractors for projects under the County's permitting authority to prepare and implement project-specific fire protection plans for projects located in a VHFHSZ to ensure that wildland fire-related hazards would not be exacerbated by installation or maintenance of infrastructure associated with future projects facilitated by the Revised Draft 2045 CAP measures and actions that may exacerbate fire risk (Recirculated

Draft PEIR, pp. 3.18-22 through 3.18-24). Because the implementation of this mitigation measure would ensure that the risk of fire from infrastructure associated with projects facilitated by the Revised Draft 2045 CAP would be managed through collaboration with LACoFD, and that the applicant and its contractors would implement fire safety measures to prevent wildland fire and would be prepared to respond immediately if a fire should ignite, the impact due to the introduction of development into VHFZSZs would be reduced to a less-than-significant level. While the suggested preclusion of renewable energy development from VHFZSZs would be feasible, the comment does not suggest, and provides no evidence concluding, that Mitigation Measure 3.18-3 would not be adequate to reduce the impact of concern to a less-than-significant level.

The County has considered the comment's suggestion that the Recirculated Draft PEIR should have included a mitigation measure to require the siting of utility-scale storage projects in remote areas where there are no residences, and declined to recommend it. While the Recirculated Draft the PEIR evaluates impacts to the public and the environment, the same types of impacts relating to explosion and fire that could result from utility scale energy storage also could result from distributed energy storage projects that are located closer to the end user. See General Response 1 for additional details. So, while it would be feasible to preclude utility-scale storage projects in all but remote areas, such a measure would not reduce the significance of potential impacts to a less than significant level. Further, such a measure would cause other impacts that commenters have found objectionable, including the conversion of open desert landscapes to renewable energy-related uses.

- O2-28 The County agrees that an EIR can serve to inform and shape the project considered and should not analyze the project in isolation. The Recirculated Draft PEIR serves these purposes. See Section 2.2.1, *General Response 1: CEQA Alternatives*, which explains the Recirculated Draft PEIR's initial consideration of 11 potential alternatives and its focus on three alternatives in addition to the CEQA-required No Project Alternative. Responses to comments about the Revised Draft 2045 CAP are provided in Chapter 1. Comments expressing opinions about policies within the Revised Draft 2045 CAP and their relationship to the Recirculated Draft PEIR do not raise significant environmental issues and therefore, no further response is required pursuant to CEQA Guidelines section 15088(a).
- O2-29 The County disagrees with the comment's suggestion that the Recirculated Draft PEIR does not properly discuss alternatives and mitigation measures. See Section 2.2.1, *General Response 1: CEQA Alternatives*, which addresses comments about the Recirculated Draft PEIR's analysis of alternatives, and Response O2-28, which addresses comments about mitigation measures to reduce impacts of renewable energy projects.

- O2-30 In response to the comment’s concerns with the Revised Draft 2045 CAP’s long-term aspirational goal of carbon neutrality by 2045, see Responses to Comments O2-31 to O2-33 below.
- O2-31 The Revised Draft 2045 CAP identifies a long-term aspirational goal of carbon neutrality by 2045. This aligns with the State of California’s carbon reduction targets and goals, notably Assembly Bill 1279, which established a policy to reach net zero GHG emissions by no later than 2045. Further, the Board of Supervisors has committed to meeting carbon neutrality in their *We Are Still In* declaration. The Revised Draft 2045 CAP acknowledges that its framework is not enough to achieve carbon neutrality but rather provides the framework that puts the County on a path toward it. The current challenges toward carbon neutrality are discussed in detail on pages ES-7 and 3-10 through 3-13 of the Revised Draft 2045 CAP. As directed by the Board of Supervisors, actions will be implemented in the future toward achieving this goal. The Revised Draft 2045 CAP will be revisited every five years after adoption to adjust policies and programs, where needed, to account for changes in technology and address future federal and state regulations. (Revised Draft 2045 CAP, p. 1-7.) For a specific response to the comment’s point regarding the Revised Draft 2045 CAP’s relationship to the General Plan, please refer to General Response 2.
- O2-32 For the purposes of developing a General Plan, the Office of Planning and Research’s (OPR’s) *General Plan Guidelines* defines a goal as “a general expression of community values and direction, expressed as ends (not actions).” OPR’s guidance states that because goals may be abstract in nature, they are “*generally* not quantifiable or time-dependent” (emphasis added); however, an implementing program that carries out general plan policies is not prohibited from quantifying an expressed goal. Further, the 2045 carbon neutrality aspirational goal is included as a goal of a General Plan implementation program, rather than as a goal in the General Plan text. The County has discretion to determine the most appropriate approach for the contents of the Revised Draft 2045 CAP, which is an implementation program of the Air Quality Element of the County’s General Plan. Further, the Revised Draft 2045 CAP’s 2045 aspirational goal will not “direct all future plans and development decisions”; instead, it was used to guide development of the Revised Draft 2045 CAP measures and actions and will be used to guide future refinements of the Revised Draft 2045 CAP.
- O2-33 In response to the comment’s concern regarding the Revised Draft 2045 CAP’s long-term aspirational goal of carbon neutrality by 2045, see Response to Comment O2-31. Also see General Response 4 for a discussion regarding how the County would achieve its carbon neutrality goal.
- O2-34 to O2-40 The comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O2-41 The County acknowledges the comment’s concern regarding Action E4.3 related to replacing heat-trapping surfaces at County-owned facilities; however, the measure’s intent is not to replace *all* heat-trapping surfaces owned by the County, such as roads, highways, parking lots, and hardscapes. Rather, Action E4.3 refers to replacement of heat-trapping surfaces at County-owned buildings only. Measure E4 is described under the Building Energy and Water category and under Strategy 6, *Improve Efficiency of Existing Building Energy Use*, in the Revised Draft 2045 CAP, and is related to improving energy efficiency of existing buildings, as indicated by titles of both Strategy 6 and Measure 4 (*Improve Energy Efficiency of Existing Building*). Therefore, County-owned public infrastructure, such as roads, highways, parking lots, and other hardscape, are not required to be replaced under Action E4.3 nor does the measure result in a significant impact, as described in Section 3.7, *Energy*, under Section 3.7.2.7, *Project Impacts*.

O2-42 In response to the comment’s concern related to programmatic CEQA documents and evaluated alternatives, Chapter 4, *Alternatives*, of the Recirculated Draft PEIR sufficiently evaluates four project alternatives per CEQA requirements. CEQA requires mitigation measures to substantially lessen or avoid a significant impact on the environment. (CEQA Guidelines, § 15370.) The Recirculated Draft PEIR evaluated the environmental impacts of the Project at a programmatic level and prescribed mitigation measures for significant impacts, which are provided in *Chapter 3, Environmental Setting, Impacts, and Mitigation Measures*. A summary of impacts and mitigation measures can be found in Table ES-2, *Summary of Impacts and Mitigation Measures*, in the Executive Summary of the Recirculated Draft PEIR.

Regarding the comment’s concern regarding Action E4.3, the Recirculated Draft PEIR identified Action E4.3 as relevant to its analysis of energy-related impacts and did not conclude that there were significant impacts resulting from implementation of Action E4.3. (See Recirculated Draft PEIR, pp. 3.7-10-11.) Action E4.3 calls for converting existing County-owned heat-trapping surfaces to cool or green surfaces. Chapter 3.7, *Energy*, concluded that this action and other measures and actions relevant to the analysis of energy-related impacts would not result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency because they would largely result in the reduction in energy use. The comment does not present evidence of any specific adverse impacts related to Action E4.3. Further, as stated in Response O2-41 above, Action 4.3 does not apply to roadways and the alternative suggested is not applicable to the Project or its design.

Regarding the suggestion that the Recirculated Draft PEIR should have included an alternative to replace roadways with cool or green surfaces, see General Response 1 and Response O2-17.

O2-43 Agriculture as referenced in Strategy 9 as a part of the Agriculture, Forestry, and Other Land Uses (AFOLU) sector refers to agricultural production where there is continual soil disturbance, not personal agricultural uses or agricultural zoning.

Regarding the comment that Strategy 9 incorrectly conflates “residential” uses with “urbanized” uses, the County acknowledges and agrees with the comment. Chapter 3 of the Revised Draft 2045 CAP has been revised to address this comment in the following ways, as shown in the example below:

When these natural and working lands are converted to ~~residential~~ development and ~~other~~ urbanized uses, that stored CO₂ is released into the atmosphere... Further, this strategy will consider the role rural communities play in preserving and enhancing carbon sequestration capacity. (Revised Draft 2045 CAP, Chapter 3, p. 3-65.)

The Revised Draft 2045 CAP does not have any specific measures or actions that create goals or mandates for residential uses, including rural residential uses in places like Acton. For example, the performance objectives of Measure A1 are to reduce the amount of natural land converted for urbanized uses, conserve and restore new wildland, and manage new acres of wildland for wildfire risk reduction and carbon stock savings (Revised Draft 2045 CAP, Chapter 3, p. 3-67). Actions A1.1 and A1.2 do not directly affect rural residential communities.

O2-44 to O2-45 The comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O2-46 Measure T5 implements Assembly Bill 2097, which prohibits the County from imposing a minimum parking requirement for projects located within half a mile of a major transit stop. Major transit stops are defined in Public Resources Code section 21155 as an existing rail or bus rapid transit station, ferry terminal served by bus or rail transit service, or the intersection of two or more major bus routes with service intervals of 15 minutes or less during morning and afternoon peak commutes. Projects may choose to include parking in their project design, but it is no longer mandated. Measure T5 would reduce Countywide VMT by facilitating projects that reduce VMT and promote transit and active transportation, which is consistent with the transportation-related goals and policies of the SCAG RTP/SCS, Metro’s Short- and Long-Range Transportation Plans, Step by Step Los Angeles County, Los Angeles County Bicycle Master Plan, and Los Angeles County General Plan. The comment states concern about eliminating parking minimums for commercial businesses in the vicinity of Crown Valley Road and Sierra Highway. The closest qualifying major transit stop is the Acton Metrolink Station located 4.5 miles away from the Crown Valley Road and Sierra Highway area. Commercial projects in the Crown Valley

Road and Sierra Highway area would not qualify for the parking elimination because they are not located within half a mile of a major transit stop. For these reasons, the County rejects the comment's suggestion to revise Measure T5 to limit its application to new commercial businesses in rural areas that lack high-quality transit and disagrees with the comment's statement that this measure would exacerbate traffic and safety hazards.

- O2-47 The Revised Draft 2045 CAP released on March 16, 2023, retained the majority of the contents of the Revised Draft 2045 CAP that was released the prior year. The Revised Draft 2045 CAP was released with a tracked changes version to facilitate ease of review. The Recirculated Draft PEIR, released on March 30, 2023, listed the major changes to highlight for reviewers the major differences between the analysis contained in the Draft PEIR released on May 25, 2022, and the Recirculated Draft PEIR to facilitate ease of review (see Section 1.4.3 of the Recirculated Draft PEIR). For these reasons, the County believes that the 45-day public review period provided for the Recirculated Draft PEIR was sufficient to allow informed public comment.

**Comment on the Draft 2045 Climate Action Plan
Traffic Safety and Mobility Committee, Altadena Town Council**

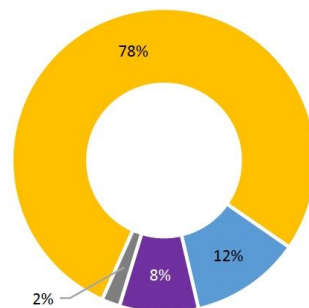
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|--|-------------|
| <p>The Altadena Town Council's Traffic Safety and Mobility Committee advocates for active transportation and traffic safety infrastructure with LA County, as well as providing community feedback on unsafe streets, intersections, and street crossings.</p> | <p>O3-1</p> |
| <p>The Traffic Safety and Mobility Committee generally supports the 2045 Climate Action Plan to reduce greenhouse gas emissions from transportation as stated in the County's CAP Strategies 3 and 4.</p> | <p>O3-2</p> |
| <p>Background on Altadena's Transportation</p> | <p>O3-3</p> |
| <p>Fifty-two percent of GHG emissions in Unincorporated LA County come from transportation (reference CAP Executive Summary p.26, Fig ES.1).</p> | <p>O3-4</p> |
| <p>In West San Gabriel Valley where Altadena is located, the majority of transportation is car use (driving alone at 79%), with transit making up only three percent.</p> | <p>O3-5</p> |
| <p>Altadena is a suburban community with the majority of its residents living in single-family homes. There is little density even around Metro bus corridors.</p> | <p>O3-6</p> |
| <p>While many people, especially those over 65+, young people, and low income residents, depend on public transportation, the Metrobus service was reduced in 2022 and Metro micro transit has been experiencing low ridership.</p> | <p>O3-7</p> |
| <p>Altadena is 8.4 sq miles with 118 miles of roadways that has high potential for a variety of methods for street networks that prioritize active mobility.</p> | <p>O3-8</p> |

| SECTOR/SUB-SECTOR | ALL UNINCORPORATED AREAS | WEST SAN GABRIEL VALLEY |
|---|--------------------------|-------------------------|
| Total Population | 1,037,227 | 105,252 |
| Estimated Population in HQTAs | 330,000 | 13,000 |
| Estimated Population in TODs | 69,000 | 2,000 |
| Drive Alone/Carpool/Transit | 77% / 10% / 5% | 79% / 10% / 3% |
| PM _{2.5} Percentile | 63.6 | 62.0 |
| Pollution Burden Percentile | 62.3 | 61.5 |
| Asthma Percentile | 51.4 | 32.6 |
| Estimated Population in Disadvantaged Communities | 383,000 | 16,000 |

O3-9

Stationary Energy Emissions by Sector

- Residential
- Commercial
- Institutional
- Industrial



Key Climate Actions

- Actions supporting transportation electrification and improved transit service
- Actions to encourage transit for youth and seniors
- Actions to reduce residential emissions
- Actions focused on building decarbonization
- Actions targeting zero carbon energy in wildfire-prone areas

Source: CAP 2045 Appendix D: West San Gabriel Valley

There are many reasons for low ridership of public transportation, including high injury and fatality rates for pedestrians and cyclists. The Traffic Safety and Mobility Committee is focused on advocating for safer streets for every user: pedestrians, cyclists, equestrians, transit users, and those with physical mobility issues in the areas of Altadena that have high rates of pedestrian and cyclist collisions, injuries, and fatalities. These areas tend to be corridors with high traffic, little or incomplete sidewalks, no bike lanes, and poorly designed, from a safety perspective, intersections and crosswalks. These areas also tend to be near schools, parks, businesses, and transit corridors that could be redesigned with transportation equity in mind.

O3-10

O3-11

O3-12

Climate Equity

The 2045 Climate Action Plan puts climate equity at the center of its strategy by prioritizing frontline communities, Indigenous people, BIPOC, low income households, and communities affected by historically high environmental impacts. By digging into the data from the federal Climate and Economic Justice Screening Tool, the Committee found that Altadena is at high risk for building (95th percentile) and population loss (99th percentile) due to natural hazards like wildfires (83rd to 99th percentile); exposure to PM_{2.5} (88-90th percentile); proximity to

O3-13

O3-14

Superfund Sites (70th-90th percentile); and has a significant percentage of its population with linguistic isolation (88th percentile), economically burdened by housing costs (67th percentile); and education below a high school diploma (16th percentile; 10th percentile is considered high risk).

O3-14
(cont.)

As we consider equity among census tracts, we found that residents in Census Tract 4610, which borders the 210 freeway and Pasadena, are burdened with the most pollution, health disparities, unemployment, lack of education, and linguistic isolation. Given its location, these residents also experience the noise and pollution from traffic as well as experiencing the highest transportation barriers.

O3-15

Census Tract 4610 - Climate and Economic Justice Screening Tool

| | |
|-----------------|--|
| 48th percentile | Low income |
| 92nd percentile | PM2.5 |
| 67th percentile | Diabetes |
| 39th percentile | Low life expectancy |
| 87th percentile | Housing cost |
| 60th percentile | Green space |
| 80th percentile | Lack of indoor plumbing |
| 94th percentile | Lead paint in the home |
| 56th percentile | Proximity to hazardous waste facilities |
| 95th percentile | Proximity to Superfund Site |
| 47th percentile | Diesel particulate matter |
| 61st percentile | Transportation barriers |
| 61st percentile | Traffic volume and proximity |
| 60th percentile | Proximity to leaking underground storage tanks |
| 79th percentile | Linguistic isolation |
| 74th percentile | Unemployment |
| 17th percentile | Less than high school diploma |

O3-16

Source: Climate and Economic Justice Screening Tool
(<https://screeningtool.geoplatform.gov/en/#12.6/34.20094/-118.13667>)

2045 CAP Strategies

| | |
|--|-------|
| <p>The Committee supports the 2045 CAP Strategies 3 and 4 that encourage walking, biking, taking public transportation, and micro transit options along with expanding EV infrastructure.</p> | O3-17 |
| <p>Meeting these goals would both reduce carbon emissions and increase traffic safety.</p> | O3-18 |
| <p>Strategy 3: Reduce single occupancy vehicle trips</p> | |
| <p><i>T3 Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles.</i></p> <p>The Committee supports expanding the bicycle and pedestrian networks to access the many destination points throughout the community. In addition to common destinations such as schools, employment centers, transit hubs and entertainment, Altadena is surrounded by major outdoor recreation destinations including the Arroyo Seco, the Angeles National Forest to the north, and Eaton Canyon Natural Area to the East. However, to implement this strategy, the County will need to invest in sidewalks, protected bike lanes, and make crosswalks and intersections safer for those accessing these destination points.</p> | O3-19 |
| <p>Some specific needs the Committee has identified to date are:</p> | O3-20 |
| <ul style="list-style-type: none"> Contiguous sidewalks on all Metro Bus routes, including Lincoln Ave, Fair Oaks Ave, Altadena Dr, Mariposa St., Allen Avenue and Lake Ave should be prioritized which would connect Altadena to destinations in Pasadena including Metro L Line stations along the 210 Freeway corridor. | O3-21 |
| <ul style="list-style-type: none"> Incorporating traffic calming principles into roadway prioritizing enhancement of crossings for pedestrians along high speed corridors which often are our transit corridors and rehabilitation projects to make the roadway more conducive to walking and biking. The intersections at Lincoln Ave and Altadena Dr; Fair Oaks and Altadena Dr; Loma Alta and Fair Oaks; Woodbury and its intersections at Lincoln, Fair Oaks, Windsor, as well as Washington and Lake Ave at Altadena Dr and NY Dr especially at Altadena, Allen, Lake Ave will need to be redesigned to reduce crashes and injuries. | O3-22 |
| <ul style="list-style-type: none"> Encourage and promote Safe Routes to Schools in Altadena to those in positions of leadership within the 20+ public, charter, and private schools and child care facilities in Altadena in collaboration with LA County Public Health and Public Works Vision Zero Programs, including the next phase of the Slow Street Program. | O3-23 |
| <ul style="list-style-type: none"> Washington Ave as a key connector route to PUSD schools, business districts, churches, trail access to the planned SGV Greenways, Metro LA and Pasadena Transit, and connecting the elderly to medical services and low income housing, especially near the intersection of Altadena Dr. | O3-24 |

Comment Letter O3

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|--|-------|
| <ul style="list-style-type: none"> • Prioritizing Safe Routes to Parks and Schools including the corridors Loma Alta, Lincoln, Ventura, Fair Oaks, and Lake Ave for multi-benefit projects. | O3-25 |
| <ul style="list-style-type: none"> • Neighborhood active transportation corridors are streets networks that can enhance diverse mobility options. Connector corridors such as Marengo, Fair Oaks, Lincoln Ave, Loma Alta, Mariposa, Windsor, Woodbury, New York Dr, Allen, Santa Anita, Mendocino, Washington can offer complete street opportunities. Installing safety measures on residential streets such as Wapello, Mountain View, Harriet, Ventura, Glenrose, Palm, Las Flores, and Casitas could improve pedestrian and cyclist access. | O3-26 |
| <p><i>T3.1 Create a more connected and safer bikeway network by expanding bikeway facilities and implementing protected and separated lanes.</i></p> <p>The Committee, along with Pasadena Complete Streets Coalition and Active San Gabriel Valley, is working with the County on updating the LA County Bicycle Master Plan. The LACBMP, last updated in 2012, proposes 27.9 miles of new bikeways, including 5.2 miles of Class II Bike Lanes and 22.6 miles of Class III Bike Routes. To date, only 1.7 miles of Class II facilities have been installed along Woodbury Road and approximately 2.7 miles of bike routes have been designated by placement of bike route signs periodically along two roadways.</p> | O3-27 |
| <p>County Public Works has informed Committee Members that the current paving project on Altadena Drive and Washington Ave will not include any bicycle infrastructure despite the fact that the LACBMP calls for placement of Class II facilities on these roadway segments. To have any chance of achieving milestones identified in the 2045 Climate Action Plan, County departments responsible for implementing the plan's objectives must be held accountable to implement it in a timely manner.</p> | O3-28 |
| <p>We are advocating to provide more Class II bike lanes where the plan currently identifies bike routes, as well as creating new bike lanes, including buffered bike lanes wherever feasible, to improve connections between Altadena and Pasadena, transit hubs, the Eaton Canyon Wash Trail (in the design stage), as well as the adjacent communities of Sierra Madre and La Canada-Flintridge. The conversion of existing proposed bike routes to Class II would affect approximately 80% of the planned bike routes, or approximately 18 miles.</p> | O3-29 |
| <p>In addition, new bike lanes are being considered for East Loma Alta Drive, El Molino Avenue, Lower Fair Oaks Avenue (south of Altadena Drive), Windsor Avenue, Palm Street and Casitas Avenue. The addition of approximately six miles of bike lanes combined with the proposed upgrading of planned Class III bike routes to Class II bike lanes will mean that every resident of Altadena will be within .5 miles of a bike facility.</p> | O3-30 |
| <p>There is unprecedented federal funding available through the Department of Transportation to counties and cities for active transportation and complete streets planning, demonstration</p> | O3-31 |
| <p>There is unprecedented federal funding available through the Department of Transportation to counties and cities for active transportation and complete streets planning, demonstration</p> | O3-32 |
| <p>There is unprecedented federal funding available through the Department of Transportation to counties and cities for active transportation and complete streets planning, demonstration</p> | O3-33 |

projects, and implementing infrastructure upgrades. Active transportation is specifically supported through County Metro’s Measure M Multi-Year Subregional program. This program dedicates funding in excess of 1 million dollars annually to active transportation and first/last mile projects throughout the San Gabriel Valley. The Committee encourages the County to prioritize Altadena when possible for funding through grants such as Federal Safe Streets for All and Measure M programs.

O3-33
(cont.)

T3.2 Implement and regularly update LA County’s Pedestrian Action Plan, Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan.

O3-34

As previously mentioned, the Committee is working with the County to update the Bicycle Master Plan, The Pedestrian Action Plan, Active Transportation Plans, and Vision Zero Action Plan **do not mention Altadena**. The Committee would like to undertake supplemental planning with the County to create a pedestrian and active transportation plan for Altadena.

Implementation of active transportation improvements that remove barriers to walking and biking throughout the community have received little funding, despite being identified in County Planning Documents. These documents should be required to include preliminary project estimates, rank each project according to its priority, and identify the variety of State, Federal and County-wide funding sources that would best match each project.

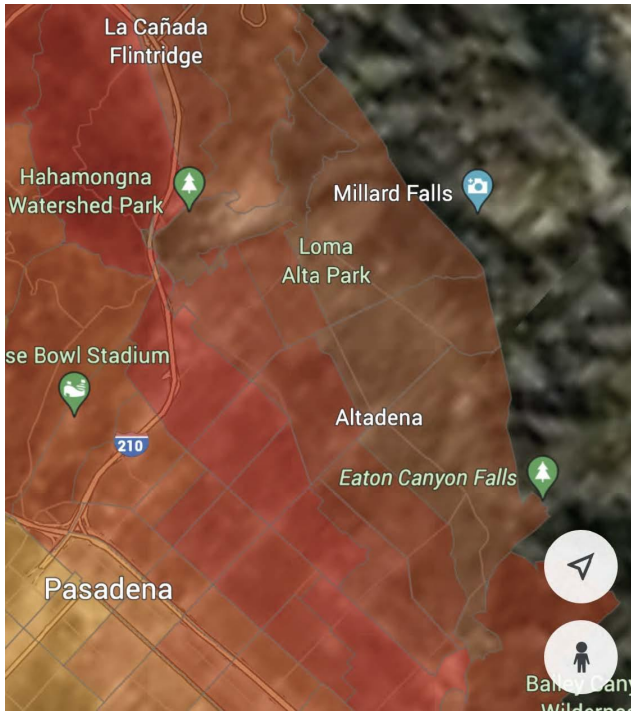
O3-35

O3-36

T3.3 Enhance pedestrian and bicycle environments through energy efficient pedestrian-scale lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro’s Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program.

O3-37

There are neighborhoods in Altadena that suffer from a lack of tree canopy resulting in little shade. The image below from CalEPA shows the high heat exposure for Altadena.



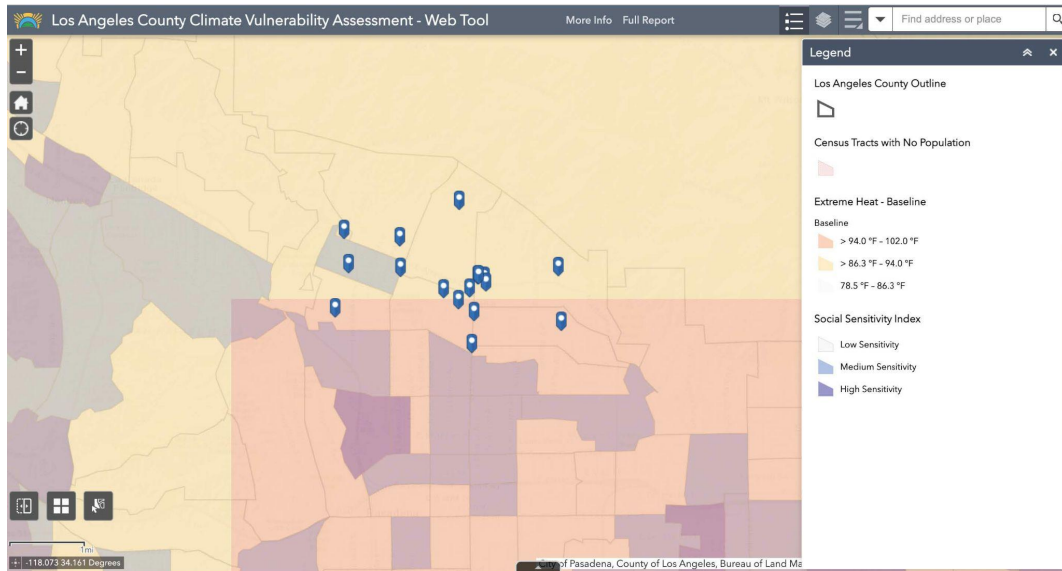
O3-37
(cont.)

Planting more trees on Altadena streets are critical for those waiting for the bus, walking and biking. Greening corridors can bring multi-benefits including improving biodiversity and water capture.

O3-38

In addition, the LA County Climate Vulnerability Assessment was used to map the vulnerability of Altadena schools. School-age children are particularly at risk for high heat exposure.

O3-39



O3-39
(cont.)

While shade and cooling neighborhoods is important, it is equally important to ensure there is adequate night lighting in Altadena. In 2022, an older resident exited a Metrobus and was struck and killed while crossing Fair Oaks Ave on his way home. Street lighting, reflective paint, and raised reflectors should be incorporated into lighting projects.

O3-40

T4 Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: Transit service, micro mobility services (such as bike-share, scooter-share, and drone deliveries), and access to these transportation options can help reduce VMT.

O3-41

Metrobus and Microbus services are not well used among Altadena residents although these services are essential to our most vulnerable populations. To meet the County's transit goals, further study is needed to address why the transit rates in Altadena are so low and what can be done to increase them. The Committee agrees that active transportation planning and implementation of critical infrastructure is essential to encourage more residents to leave their cars and walk, bike, or ride a bus.

O3-42

| | |
|---|-------|
| <p><i>T4.1 Expand and improve the frequency of service of County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles.</i></p> | |
| <p>As discussed above, user rates for public transportation, including Metro micro, are low for Altadena. Better planning with the goal of understanding how to connect residents to schools, parks, libraries, trails, and businesses should be prioritized before adding more shuttles and mobility services. Investing in Safe Routes to Schools, Safe Routes to Libraries, Safe Routes to Parks, and Rail to Trails programs are essential.</p> | O3-43 |
| <p><i>T4.2 Install bus-only lanes and signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate.</i></p> | O3-44 |
| <p>Most streets in Altadena would not be wide enough to install bus lanes, however, better Metro bus signage, curb painting, and road painting that makes drivers more aware of bus stops and the presence of pedestrians would be beneficial. It is also necessary to ensure there are sidewalks that safely connect residents to bus stops, as well as adequate space on the sidewalk for people to wait for the bus. Encroachment of the public right of way is a major issue in Altadena and should be addressed.</p> | O3-45 |
| <p>It is also necessary to ensure there are sidewalks that safely connect residents to bus stops, as well as adequate space on the sidewalk for people to wait for the bus. Encroachment of the public right of way is a major issue in Altadena and should be addressed.</p> | O3-46 |
| <p><i>T4.3 Develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit.</i></p> | O3-47 |
| <p>Technology that helps to reduce Metro transit wait times would be beneficial and may lead to an uptick in transit use. However, ensuring there is a safe route to reach a bus stop is a more urgent issue for Altadena.</p> | O3-48 |
| <p>However, ensuring there is a safe route to reach a bus stop is a more urgent issue for Altadena.</p> | O3-48 |
| <p><i>T4.5 Develop and implement a transportation demand management (TDM) ordinance that requires projects to incorporate measures such as subsidized transit passes and car share.</i></p> | O3-49 |
| <p>The Committee supports a transportation demand management ordinance in principle, however, transit infrastructure needs to exist prior to the ordinance. Development projects should be</p> | O3-50 |
| <p>within ½ mile of transit and car share services should be available. Services like Blue LA, BlinkLA, and Getaround are not available in Altadena. Metrobus is only available on Lake Ave,</p> | O3-51 |
| <p>within ½ mile of transit and car share services should be available. Services like Blue LA, BlinkLA, and Getaround are not available in Altadena. Metrobus is only available on Lake Ave,</p> | O3-52 |
| <p>Metrobus is only available on Lake Ave, Fair Oaks Ave, Altadena Dr between Lake and Lincoln, Washington Ave, and Allen Ave from Pasadena up to New York Dr in Altadena. Much of Altadena is not serviced by Metrobus within the ½ mile target area and in many cases, there are not safe ways to access a bus stop due to the lack of sidewalks and protected bike lanes.</p> | O3-53 |
| <p><i>T4.6 Offer free transit passes for students, youth, seniors, people with disabilities, and low-income populations.</i></p> | O3-54 |

The Committee supports free transit passes for the groups mentioned above. There needs to be better outreach to ensure these groups receive the passes. The passes could be distributed through schools, libraries, and senior centers.

O3-54
(cont.)

T4.8 Establish temporary and permanent car-free areas.

The Committee supports demonstration projects and temporary car-free areas near surrounding streets at the Altadena Farmers Market, during County Parks programs, Christmas Tree Lane lighting ceremony, Juneteenth, Pride Parade, Mariposa evening shopping events, and in front of schools to improve traffic congestion during drop-off/pick-up times.

O3-55

T5 Limit and Remove Parking Minimums: Parking strategies such as parking maximums, unbundling parking, or market price parking can help reduce VMT.

T5.1 Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, and incentives for developers to provide less than maximum allowable parking.

O3-56

Altadena generally has free street parking. There are several unused parking spaces next to or behind buildings that have been vacant for a long time. These spaces could be reclaimed temporarily by the County for parking, reducing the need for street parking which would free up space for cyclists. These spaces could also be shared among businesses reducing the need for parking requirement minimums.

Strategy 4: Institutionalize low-carbon transportation

T6.1 Develop a Zero Emission Vehicle Master Plan.

O3-57

The Committee supports the creation of a ZEV Master Plan. There is little public ZEV infrastructure in Altadena although some residents drive ZEV.

T6.2 Install EVCSs at existing buildings and right-of-way infrastructure (e.g., lamp poles) throughout unincorporated Los Angeles County.

O3-58

T6.4 Install EVCSs at LA County facilities and properties for public, employee, and fleet use, prioritizing locations in BIPOC and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for BIPOC and disadvantaged communities.

Currently, there are no EVCS in Altadena except at the Community Center. Additional EVCS could be installed at LA Parks, Altadena libraries, grocery stores, churches, schools (coordinate with PUSD), Seniors Center, trailheads like Cobb Estate, and at or near apartment buildings.

O3-58
(cont.)

T6.6 Expand electric options for active transportation, such as electric scooters and e-bikes.

Active SGV has a pilot "rent to own e-bike and e-cargo bike" program for residents in the San Gabriel Valley. This program could be expanded.

O3-59

Although an excellent way to complete the last mile or two of a trip, e-scooters can cause conflicts with pedestrians on sidewalks and can clutter up sidewalk space. A program should be designed with best practices from cities that have experience with e-scooter programs. How e-scooters are charged (clean vs dirty grid) should also be taken into account.

O3-60

T6.7 Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles.

There are few hydrogen stations in unincorporated LA. The closest one to Altadena is located in La Canada Flintridge. The next closest hydrogen fueling station is more than 10 miles away. There needs to be significant infrastructure built.

O3-61

T7-7.2 Electrify LA County Fleet Vehicles: Electrify the LA County bus, shuttle, and light-duty vehicle fleet and shuttles.

Electrifying the LA County fleet vehicles would improve air quality in Altadena whose residents suffer from high PM2.5 air pollution.

O3-62

A3 Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces: Create an Urban Forest Management Plan to plant trees, increase the unincorporated County's tree canopy cover, add green space, and convert impervious surfaces.

A3.2 Expand County tree planting both in the public right-of-way and on private property.

According to the UCLA Luskin Center for Innovation Healthy Places Index Heat Edition, all census tracts in Altadena will experience extreme heat (temperatures above 90F) above the state average of 79.9 days by 2035. Census Tract 4612 tops out at 125.3 days of extreme heat. The census tracts where tree canopy falls below the 80th percentile (according to the Healthy Places Index) are 4603.02, 4613, 4611, and 4610.

O3-63

The lack of shade also corresponds to the major traffic and Metro bus corridors such as Lake Ave between Altadena Dr and Washington Ave, Woodbury Ave, and Fair Oaks between

O3-64

Comment Letter O3

Washington and Altadena Dr. Expanding the tree canopy along the public right of way would benefit transit users and residents.

O3-64
(cont.)

Prioritizing a Pedestrian Plan for Altadena that takes into account County storm water drainage plans and increases permeable surfaces in line with a mobility plan can help define multi-benefit planning efforts toward sustainable solutions.

O3-65

Signed on May 15, 2023 by,

Dorothy Wong, Chair, Traffic Safety & Mobility Committee, Altadena Town Council Member

Sarah Wolf, Committee Member

Seriina Corrubias, Committee Member

Tom Reilly, Committee Member

Sasha Anthome, Committee Member

June Cowgill, Committee Member

Ester Song, Committee Member

Gwen Yeager, Committee Member

Stephen Neptune, Committee Member

2.3.2.3 Letter O3: Altadena Town Council

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

O3-1 to O3-2 The County acknowledges the role of Altadena Town Council’s Traffic Safety and Mobility Committee and its general support for the Revised Draft 2045 CAP; however, this comment does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this comment pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O3-3 to O3-12 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O3-13 to O3-16 The County agrees with the comment’s statement that frontline communities are at the forefront of equitable implementation of the Revised Draft 2045 CAP measures and actions. The County appreciates the comment’s discussion of data taken from the federal Climate and Economic Justice Screening Tool and acknowledges the statistics regarding Altadena. Environmental and equity screening tools such as the federal Climate & Economic Justice Screening Tool, the state’s CalEnviroScreen, and the County’s Equity Indicators Tool that can be used to inform investment and prioritization for the implementation of Revised Draft 2045 CAP measures and actions. In response to the comment’s discussion of Census Tract 4610 and citation to the Climate and Economic Justice Screening Tool, the County acknowledges the data provided and statement that residents are burdened with the most pollution, health disparities, unemployment, lack of education, linguistic isolation, noise, and transportation barriers; however, this comment summarizes data and does not raise any specific concerns about the Recirculated Draft PEIR, such that the County cannot provide a specific response relating to these environmental issues.

O3-17 to O3-36 The comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O3-37 The current status of Altadena’s tree canopy and heat exposure is part of the baseline condition. Both conditions could be improved for the benefit of human health and the environment through the implementation of projects facilitating the Revised Draft

2045 CAP measures and actions, such as community tree planting programs and tree planting on County property and in the public right-of-way within unincorporated Los Angeles County (Action A3.2). Measure A3 and Action A3.1 calls for the development of an Urban Forest Management Plan which would increase unincorporated Los Angeles County's tree canopy cover and prioritize tree- and parks-poor communities (Recirculated Draft PEIR p. 2-39). These policies would preserve existing open spaces that contribute to the visual quality of scenic vistas and would result in a beneficial impact (Recirculated Draft PEIR p. 3.2-10). This comment does not question the adequacy or accuracy of the Recirculated Draft PEIR and no change to the Recirculated Draft PEIR has been made in response.

O3-38 See Response O3-37 regarding baseline conditions particular to Altadena and the benefits of projects facilitated by the Revised Draft 2045 CAP pursuant to Action T3.3. The County agrees that tree planting and greening corridors can improve biodiversity and water capture.

O3-39 In response to the comment's concern related to the high heat exposure risk on vulnerable populations, including school-age children, the Recirculated Draft PEIR agrees that school-aged children are an environmentally sensitive population and has appropriately considered potential impacts to them from projects facilitated by the Revised Draft 2045 CAP measures and actions. Action T3.3 calls for building shade structures at major transit stops, prioritizing communities with high heat vulnerability. See, e.g., Section 3.4, *Air Quality*, which defines sensitive receptors to include this population (p. 3.4-11), explains that children are among the most at-risk from breathing air contaminants (pp. 3.4-3 to 3.4-9) including dust (p. 3.4-10), and identifies program-level mitigation to avoid or substantially reduce a significant impact to this population (p. 3.4-68). See also Section 3.9, *Greenhouse Gas Emissions*, which identifies children as a focus of the "Complete Streets" policy to meet the needs of all users of the streets, roads, and highways, including children (p. 3.9-26); and Section 3.10, *Hazards and Hazardous Materials*, which considers contamination cleanup sites in proximity to schools (pp. 3.10-3, 3.10-16, 3.10-24 et seq.) and provides information about the emission of electric and magnetic fields near schools (p. 3.10-32). See also, Section 3.15, *Transportation* (p. 3.15-11), which considers Los Angeles County General Plan Mobility Element Goal M 1, including Policy M 1.1 ("Provide for the accommodation of all users, including pedestrians, motorists, bicyclists, equestrians, users of public transit, seniors, children, and persons with disabilities when requiring or planning for new, or retrofitting existing, roads and streets.") and Policy M 1.2 ("Ensure that streets are safe for sensitive users, such as seniors and children.").

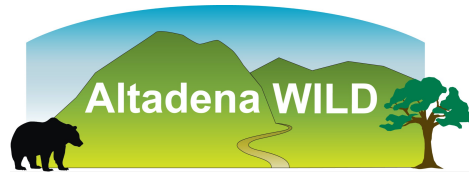
O3-40 Regarding the comment's concern related to pedestrian safety and the importance of night lighting and reflective materials in the Altadena community, current conditions relating to these nighttime safety elements are part of the baseline condition evaluated in the Recirculated Draft PEIR. See Section 3.2.1.2, *Environmental Setting*, in Section 3.2, *Aesthetics*, which explains that, while the more urbanized areas of Los Angeles County are heavily affected by nighttime lighting, nighttime light is less evident in

less densely populated parts of the County, such as in foothill communities located away from the Los Angeles Basin and in the Antelope Valley (p. 3.2-3). Projects facilitated by 2045 CAP Action T3.3 would include energy efficient lighting that would likely contribute to a safer nighttime environment because it includes consideration of energy-efficient pedestrian-scale lighting. (Recirculated Draft PEIR, p. 3.2-17.)

O3-41 to O3-62 The comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O3-63 to O3-64 Regarding the comment's concern regarding extreme heat in Altadena and expansion of the tree canopy along the public right of way, Draft 2045 CAP Measure A3, Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces, would result in an Urban Forest Management Plan to plant trees, increase tree canopy cover, add green space, and convert impervious surfaces. Measure A3 will focus tree planting on frontline communities with insufficient tree cover and green spaces. The Urban Forest Management Plan will help inform tree planting locations by assessing current tree canopy cover, considering locational ecology, and using the collected data to prioritize tree- and parks-poor communities. The Urban Forest Management Plan also addresses the conservation of mature trees and would assist the County in properly managing resources to ensure that trees thrive throughout the County. Consideration will be taken for multi-benefit plantings.

O3-65 The County is currently working on developing Pedestrian Plans. The first four communities of Lake Los Angeles, Walnut Park, Westmont/West Adams, and West Whittier-Los Nietos were selected based on criteria including high rates of pedestrian collisions resulting in death or injury, and a focus on communities that experience health inequities and challenges to safe walking. The next set of communities selected were East Los Angeles, East Rancho Dominguez, Florence-Firestone, and Willowbrook/West Rancho Dominguez-Victoria. Additional communities may be selected in the future pending funding. If a Pedestrian Plan is initiated for Altadena, community engagement opportunities will be available to discuss multi-benefit green infrastructure that may simultaneously address pedestrian safety, stormwater capture, and permeable surfaces.



AltadenaWILD's Comment on the 2045 Climate Action Plan Chief Sustainability Office, LA County

AltadenaWILD (AW), a public benefit corporation in California (currently moving towards 501(c)(3) federal tax-exempt status) was created in early 2023 to serve as an advocate for the precious Altadena foothills. Its creation was catalyzed by the October 2022 announcement that Polytechnic School in Pasadena seeks to build a sports complex on a portion of the 78 acres being offered by for sale by a family-owned nursery on Chaney Trail. AW represents a large segment of the Altadena community and is writing on behalf of those citizens in support of the County's Draft 2045 Climate Action Plan.

The proposed development in a State-designated Very High Fire Hazard Severity Zone -- even if constrained to the 13 acres of the current nursery -- will inalterably impact the remaining 65 acres of wildlands. AW believes such a development would be inconsistent with the 2045 CAP strategies to:

- A1 - Conserve agricultural and working lands, forest lands, and wildlands
- A1.2 - Employ vegetation management of wildlands to reduce wildfire risk and prevent carbon loss in forest lands

The land represents an opportunity to achieve three County strategies:

- A1.1 -Develop an open space conservation and land acquisition strategy to conserve lands for carbon sequestration
- A3 - Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces
- A3.1 - Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity.

The Proposed Sports Complex Plan

While Poly has not yet submitted their plans to the County/DRP (although it is expected sometime in Summer 2023), it has shared its proposed plans with AltadenaWILD, which include:

- A soccer/football/track stadium, with seating for 500
- A baseball stadium, with TBD seating capacity
- Two-story underground parking facility
- Lighting for night games
- Amplified sound systems
- Storage building(s)
- One-story “bungalow style” facility (ies) for classrooms
- Public restrooms
- Interior road

Seventy percent of the Nuccio's property falls within the Hillside Management Area (HMA, Title 22), and 80% falls within the Significant Ecological Area (SEA, Title 22.102), and Natural Open Space Provision (Title 22.102.100). The property transfer is currently in escrow through at least the end of 2023.

Climate Equity

The 2045 Climate Action Plan puts climate equity at the center of its strategy by prioritizing frontline communities, Indigenous people, BIPOC, low-income households, and communities affected by historically high environmental impacts.

Altadena has been affected by historically high environmental impacts due to wildfires and as a wildland-urban interface, will continue to do so into the future. Numerous wildfires have occurred recently in the surrounding areas, including the devastating 2009 Station fire.

According to the federal government's Climate and Economic Justice Screening Tool, Census Tract 4603.1 which includes the land that Poly intends to buy and develop into a sports complex, is in the 98th percentile for wildfire risk and the 90th percentile for expected annual building loss rate. The area also suffers from poor air quality and is in the 91st percentile for PM2.5. The Census Tract is in the 48th percentile for low-income households.

A Conservation Plan in Line with the 2045 CAP

As an alternative to a sports complex, AltadenaWILD favors a plan that would preserve wildlands and support wildfire management, rewild the 13 acres currently used as nursery to expand the tree canopy, improve watershed health, reduce hard-scaped surfaces and act as a carbon sink, and conserve the land for at-risk wildlife and plants.

Such an alternative plan, funded through a consortium of land conservancies, supports the 2045 CAP measures A1, A1.1, A1.2, A3, and A3.1, as well as aligns to additional County and State measures including to:

- Provide critically needed Altadena parkland, in accordance with the goals of [LA County's Measure A](#) to increase park space and improve neighborhood access to open space for high park-need communities. Altadena has less than one-third park acres per person than the average for LA County, according to the [Los Angeles Countywide Comprehensive Park and Recreation Needs Assessment](#) report.
- Support LA County's initiatives to restore habitat and [improve water infrastructure](#), to green urban interface areas, and to help capture and conserve storm water.
- Provide learning opportunities for the public, inclusive of all adults and children, about environmental sciences and horticulture.
- Build resilience and sustainability in increasingly challenging times for the environment and climate.
- Firmly align with the State of California's mandate to preserve 30 percent of open lands by 2030, also known as the [30X30 initiative](#).
- Reduce population density in a State-designated Very High Fire Hazard Severity Zone
- Preserve access to the Angeles National Forest (a portion of which is designated a federal Monument)
- Preserve a Significant Ecological Area (80% of property is within Altadena Foothills and Arroyos SEA)
- Preserve a County-designated Hillside Management Area (70% of property falls within HMAs)
- Preserve five County-designated Significant Ridgelines
- Preserve wetlands that contain seasonal streams that drain into the Arroyo Seco
- Conserve [biodiversity](#) and protect the highly threatened Coastal Sage Scrub and nine rare native plant species; the federally-designated threatened Coastal California Gnatcatcher, as well as an additional 40 rare and sensitive animal species.
- Preserve vital wildlife migration corridors between the San Gabriel Mountains and Altadena Foothills for mountain lions, grey foxes, bobcats, and black bears.

2045 CAP Measures

A1 Conserve Agricultural and Working Lands, Forest Lands, and Wildlands: Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County.

To meet the goal of reducing the amount of natural land converted for urban uses (and a sports complex would qualify as an urban use), the 78 acres owned by the Nuccio's family could be acquired and preserved in line with the 2045 CAP's "25% by 2030" goal.

A1.1 Develop an open space conservation and land acquisition strategy to conserve lands for carbon sequestration.

The 78 acres could be acquired and conserved for carbon sequestration to help meet the goal of "2,000 acres by 2030." An easement on this land where 80% of the property is already an SEA contributes to meeting the County's stated goals and metrics of the 2045 CAP.

A1.2 Employ vegetation management of wildlands to reduce wildfire risk and prevent carbon loss in forest lands.

The alternative conservation plan for Nuccio's would include vegetation management to reduce wildfire risk and carbon stock savings that would help to meet the County's stated goal of managing "10,000 acres by 2030".

A3 Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces: Create an Urban Forest Management Plan to plant trees, increase the unincorporated County's tree canopy cover, add green space, and convert impervious surfaces.

There is an opportunity to rewild the 13 acres that currently occupy the nursery by removing the buildings, concrete slabs, parking areas, and other impervious surfaces. By planting native trees within the 13 acres, the county tree canopy would increase and contribute to the County's stated goals of planting 5,000 trees by 2030 and increasing the tree canopy cover by 10% by 2030.

A3.1 Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity.

Preserving and rewilding the Nuccio's nursery would contribute to the Urban Forest Management Plan priorities 1 (tree- and park-poor communities) as Altadena has less than one-third park acres per person than the average for LA County, and priority 5 (biodiversity) to conserve and protect State Species of Special Concern such as the Burrowing Owl, Black Swift, Coast Range Newt, Coastal Western Whiptail, Two-Striped Garter Snake, San Diego Mountain King Snake, and Coastal Rosy Boa.

In conclusion, the proposed plan to purchase 78 acres in the Altadena foothills and develop a portion of the property into a sports complex is contrary to the stated goals of the 2045 CAP. Instead, AltadenaWILD is proposing a plan that focuses on conservation, rewilding, protecting biodiversity, and increasing the tree canopy, while advancing a more equitable and sustainable vision for unincorporated LA County.

Signed May 15, 2023

Dr. Michael D. Bicy
President, AltadenaWILD

Sarah Wolf
Member, AltadenaWILD

2.3.2.4 Letter O4: Altadena Wild

This letter provides input on the Revised Draft 2045 CAP only. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*.



May 9, 2023

Los Angeles County Department of Regional Planning
Attn: Amy Bodek and Thuy Hua
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
climate@planning.lacounty.gov

RE: LA County Climate Action Plan: Respectfully Requesting Additional Time for Public Review Based on Limited Details and Deferred Proposals

On behalf of the Los Angeles County Business Federation (BizFed), the Building Industry Association of LA/Ventura (BIA), and the Valley and Industry Commerce Association (VICA), we strongly support the County’s and California’s climate leadership. We remain committed to implementing feasible state and local climate GHG reduction measures while advancing complimentary policies to further equality, employment, infrastructure and housing. As California leads on global climate policies and technologies, any homes and jobs generated in Los Angeles will be among the most sustainable and climate-friendly in the world. Conversely, any unintended consequences that harm housing and job growth in Los Angeles will undercut local and state climate goals.

O5a-1

Our members are deeply concerned about the many unanswered questions raised by the Revised Draft 2045 County Climate Action Plan (Draft CAP) and its potentially far-reaching impact on housing, jobs, mobility and infrastructure. The Draft CAP would create a sweeping, **mandatory** regulatory program applicable to any new project triggering the California Environmental Quality Act. Our members and expert environmental consultants have carefully reviewed the lengthy documents and technical appendices, and we continue to have fundamental questions and concerns about the proposal.

O5a-2

- The Draft CAP’s wind-ranging measures cause unexpected and adverse consequences to housing, jobs, infrastructure and other County priorities, as highlighted by two examples among many:
 - The Draft CAP creates an effective moratorium on small business, advanced manufacturing, and dozens of other vibrant and high priority economic development priorities that serve as the employment engine by requiring a “jobs density” of 300 jobs per acre. This job density metric can be met only in exceptional circumstances (e.g., high rise, high service employer like a hospital). It cannot be achieved by small business retailers, modern manufacturing facilities, many hybrid workforces with remote employees, entertainment or religious venues, etc.
 - The Draft CAP demands that 90% of all water consumed within the unincorporated County boundaries, and 80% of agricultural irrigation water, be supplied exclusively by local water sources consisting of

O5a-3

O5a-4

reclaimed water, graywater, and potable recycled water by 2045, which is well within the life of new housing, commercial and infrastructure projects. Not only is this CAP Measure legally and technically infeasible, it would hamstring County priorities of expanding housing and economic diversification dependent on reliable water supplies.

O5a-4
(cont)

- The Draft CAP defers numerous requirements to an unknown future date and does not quantify many other measures. As just one example, the Draft CAP defers a centerpiece “Offsite GHG Reduction Program” that is necessary for compliance when local GHG reduction programs are unavailable or infeasible. Recent precedent demonstrates that very few local GHG reduction programs are viable at scale. Even if available, many local programs are extremely expensive and time consuming to implement—effectively rendering the programs prohibitive for many projects. It is impossible to assess the feasibility and effectiveness of the Draft CAP until this Offsite GHG Reduction Program is adopted by the County and demonstrated feasible.

O5a-5

- The Draft CAP does not quantify GHG emission reductions or the estimated costs and sources of funding for almost all of the myriad mandatory measures. Neither the Draft CAP, its Technical Appendices, nor the 1000+ page PEIR, disclose the quantity, cost, or revenue source for each of CAP measure except for a handful of “core” measures that are largely based on statewide laws and regulations required to be implemented with or without any County CAP. Our members believe that CAP measures, which are fully enforceable General Plan mandates, will impose prohibitively high costs on employers and residents of new housing without any significant GHG reductions beyond those already required by state laws and regulations.

O5a-6

- The Draft CAP includes a web of overlapping documents that are difficult to understand and assess the ramifications on housing, jobs, mobility and infrastructure. For example, the Draft CAP mandates compliance or an infeasibility determination for well over 50 measures that are linked to various “strategies” that may or may not be binding on all projects. What is more, the PEIR includes many Mitigation Measures that further expand the list of mandatory obligations.

O5a-7

- The Draft CAP explains that any project that fails to comply with **all** CAP measures would be inconsistent with the CAP, and under CEQA would accordingly result in a significant adverse GHG impact precluding use of CEQA streamlining tools, and would further need to adopt “all feasible” mitigation measures as well as justify with “substantial evidence in the record” why the project could not comply with each and every CAP measure. Each such substitute measure, and each finding of infeasibility, would invite CEQA litigation known to slow or stop housing and new jobs. The CAP should be revised to include a full assessment of the feasibility of each measure for the myriad of housing, employment, and infrastructure projects required to fulfill other General Plan, economic development, equity and environmental priorities.

O5a-8

O5a-9

- The Draft CAP does not provide meaningful relief through alternative compliance strategies. The limited alternative options are not fully defined or deferred to future development, while the feasibility of achieving “all local” reductions remains unproven.

O5a-10

Given the significant consequences of this mandatory program on housing, jobs, mobility and infrastructure, we respectfully request that the County provide **at least 60 days more for public review and a series of workshops** with stakeholders. On March 13, 2023, BizFed previously asked that the County provide at least a 60-day comment period. Given the complexity of the CAP and PEIR (released after the Draft CAP, on March 30), as well as the significant ramifications from this proposal, it is infeasible for the public and business community to review, understand and provide meaningful comments without another 60-day review period and public workshops. We also ask that mandatory compliance with the CAP be delayed until the CAP's implementation programs have been proposed by staff, reviewed by the public, and adopted by the Board (e.g., the Offsite GHG Reduction Program). County staff should involve stakeholders when developing such programs.

O5a-11

O5a-12

We look forward to continuing working with the County on these important issues. Please feel free to reach out to us with any questions. If you have any questions, please contact sarah.wiltfong@bizfed.org.

Best regards,



Tracy Hernandez,
Founding CEO, Los Angeles County Business Federation



Jeff Montejano
Chief Executive Officer, Building Industry Association of Southern California



Maria S. Salinas
President & CEO, Los Angeles Area Chamber of Commerce



Stuart Waldman
President, Valley Industry and Commerce Association



May 15, 2023

Via e-mail at:
climate@planning.lacounty.gov

Thuy Hua
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

Re: Comments on Los Angeles County Revised Draft 2045 Climate Action Plan (Draft CAP)

Dear Ms. Hua,

We are contacting you on behalf of BizFed, the Los Angeles County Business Federation. We are an alliance of over 200 business organizations who represent over 400,000 employers in Los Angeles County, including large and small businesses from a wide range of industries throughout the South Coast Air Basin (SCAB). We are writing to comment on the LA County Revised Draft 2045 Climate Action Plan (Draft CAP).¹ Many of the businesses we represent have or will be writing their own individual comment letters that specifically address the impacts to their industries. Our comments address the impacts to the business community as a whole and include overarching concerns of our diverse membership.

O5b-1

The Draft CAP identifies 10 strategies, 25 measures, and implementing actions to reduce GHG emissions in unincorporated LA County. The Draft CAP requires project applicants to demonstrate compliance with each implementing action. Project applicants that cannot implement these actions would be expected to demonstrate equivalency or participate in the County’s proposed Offsite Reduction Program, or their greenhouse gas (GHG) emissions impacts will be determined to be “significant and unavoidable” under the California Environmental Quality Act (CEQA).

Certain actions proposed in the Draft CAP would appear to directly conflict with other significant County priorities, such as economic growth and housing availability, and it is not currently feasible to implement many of the required actions. Additionally, several proposed measures would rely upon State and Federal actions that are outside the County’s jurisdiction. The Draft CAP also fails to consider the implementation challenges associated with the proposed Offsite Reduction Plan. As detailed below, the enforceability of the Draft CAP will create significant problems for the County. For these reasons, BizFed recommends that the Draft CAP not be adopted into the General Plan.

O5b-2

We provide the following detailed comments.

¹ LA County Revised Draft 2045 Climate Action Plan. Available at: <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>. Accessed: May 2023.

1. The Draft CAP is inconsistent with the County’s economic goals, and inconsistent with the goals of the General Plan and Housing Element.^{2,3}

The 2045 CAP Consistency Review Checklist (Checklist) provides a list of measures with which project applicants must comply.⁴ These measures are inconsistent with the economic goals and General Plan goals, including those stated in the Housing Element. For example:

- Checklist Item 12, “Achieve a High Jobs/Housing Balance,” would require project applicants to describe how their project will achieve a job density of 300 jobs per acre. This creates an effective moratorium on small business, advanced manufacturing, and other businesses that serve as the employment engine of the County. Such a job density metric can only be achieved in exceptional circumstances (e.g., in a high rise, high service employer like a hospital). It cannot be achieved by small businesses, modern manufacturing facilities, businesses that utilize a hybrid workforce, the goods movement sector, entertainment or religious venues, schools, recreational facilities, or on college and university campuses.

O5b-3

Table 1 provides the average employment densities of common categories of commercial use, none of which come close to the 300 employee per acre requirement in the Draft CAP.⁵

Table 1. Employment Density Measures of Select NAICS Sectors (*Employees per acre*)

| Sector (NAICS Codes) | Mean | Median | Interquartile Range | Sample Size |
|---|------|--------|---------------------|-------------|
| Manufacturing (31, 32, 33) | 18.8 | 11.0 | 15.7 | 217 |
| Transportation and Warehousing (48, 49) | 11.2 | 8.0 | 10.8 | 34 |
| Construction (23) | 19.4 | 9.9 | 18.4 | 122 |
| Wholesale Trade (42) | 12.8 | 8.0 | 11.1 | 132 |
| Retail Trade (44,45) | 13.0 | 7.1 | 11.6 | 65 |
| Real Estate and Rental and Leasing (53) | 5.7 | 2.2 | 5.8 | 24 |
| Administrative Support and Waste Management and Remediation Services (56) | 22.5 | 20.3 | 22.0 | 25 |

O5b-4

New commercial, manufacturing, infrastructure, tourism, entertainment, church, and educational uses that do not have 300 employees per acre would be inconsistent with the Draft CAP as proposed. The projects would therefore be required to complete a comprehensive GHG analysis which could lead to a costly legal battle about what substitute measure(s) can be implemented to achieve the GHG performance target. The Draft CAP does not include a methodology to demonstrate equivalency with the job density per acre requirement. Therefore, prospective employers would not know how to demonstrate compliance with this CAP mandate.

O5b-5

- The Draft CAP counts GHG emissions that occur within the geographic boundaries of unincorporated Los Angeles county lands in the County’s GHG inventory, and then

O5b-6

² LA County General Plan. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf. Accessed: May 2023.

³ Revised County of Los Angeles Housing Element (2021-2029). Available at: <https://planning.lacounty.gov/wp-content/uploads/2022/11/housing-element-20220517.pdf>. Accessed: May 2023.

⁴ Draft CAP Appendix F: 2045 Climate Action Plan Consistency Review Checklist. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA-County-2045-CAP_Rev_PublicDraft_AppendixF-Checklist.pdf. Accessed: May 2023.

⁵ Rohan, Catherine. Industrial Zoning & Employment Density: A Missed Connection? June 2020. Available at: https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/26252/CRohan_ExitProj_Final.pdf?sequence=1&isAllowed=y. Accessed: May 2023.

demands that these GHG emissions become net-zero by 2045. When jobs or families move out of the County, the reduction in GHG emissions counts toward meeting the net zero targets. The County’s GHG inventory methodology rewards the de-growth of the county, penalizes growth in housing, jobs, and population. This is inconsistent with the County’s General Plan, which includes a guiding principle to provide the foundation for a strong and diverse economy. It is also inconsistent with the Housing Element, which includes goals to ensure housing availability, ensure housing affordability, and stabilize the housing supply.

O5b-6 (cont)

O5b-7

2. The Draft CAP would require project applicants to comply with measures that are infeasible and conflict with other County mandates and policies.

The development of Los Angeles County was and remains dependent on a diverse, resilient water supply that includes imported water. Draft CAP Measure E5, “Increase Use of Recycled Water and Graywater Systems” includes a performance objective that 90% of the water demands of Unincorporated Los Angeles County must be met by recycled water, graywater, or potable reuse, and that 80% of water for agricultural irrigation or and industrial uses must be supplied exclusively by recycled or graywater by 2045. Under this CAP Measure, no imported water source – including water delivered directly to the County, and water purchased and stored for use in the County, and no de-salinization technology or other technology falling outside the three designated technologies, can supply more than 10% of the County’s total water demand.

O5b-8

This measure is legally infeasible. The County has and is party to numerous water infrastructure, supply, and management contracts that govern imported water, which is by far the largest source of water to the County and cities within the County. This measure is also technically infeasible. While all three of the exclusively-sanctioned water treatment technologies have already been invented and implemented on a very small scale in limited areas, all of these treatment technologies effectively concentrate nitrate and other residual chemicals in the treated water supply, and these treated waters must be blended with fresh water to be potable.

O5b-9

Finally, this measure conflicts with other County General Plan, policy, and state law legal mandates. The County is required by its own General Plan as well as state law to implement its approved Housing Element, and plan for and approve plan-compliant housing for many thousands of new homes. New homes cannot be built without adequate water supplies. The Draft CAP would cause the County to violate housing laws by disapproving new housing that are not supplied by a minimum of 90% recycled, grey water, and potable recycled water, none of which are currently available to meet the potable drinking water needs of housing built today. The County also cannot achieve its economic diversification goals, including attracting additional advanced manufacturing, battery and climate-tech, aerospace, research, medical, and technology employers, without providing an adequate, secure, and high-quality water supply.

O5b-10

The Draft CAP, if adopted into the General Plan as proposed, applies directly and immediately to the County’s own projects, and to the County’s approval of project applications. The legal risks and compliance costs of the water mandate will result in immediate challenges to County funded projects (e.g., infrastructure, arts, parks), and County-approved and applicant-proposed housing and job-creation projects that meet other urgent County needs and legal obligations.

O5b-11

The Draft CAP blocks the County’s access to innovative, climate-resilient, and clean technologies with mandatory prescriptions for which technologies are acceptable and which are not. In the context of water supply, the Draft CAP locks decades-old recycling, grey water, and potable water re-use technologies into the General Plan, proactively depriving

O5b-12

the County and its residents and businesses from using safe, clean, affordable, and reliable water supply solutions that have not yet been deployed at scale, or even invented.

O5b-12 (cont)

3. Several measures rely upon State and Federal actions that are outside the County’s jurisdiction.

The Draft CAP includes a web of overlapping documents, each of which adds new mandates and complexities to the compliance obligations. For example, the Draft CAP itself lists only 10 high level “Strategies” in 5 sectors for reducing GHG.⁶ The Draft CAP includes 25 “Measures” within those strategies, and “over 90 implementation actions”. The Program Environmental Impact Report (PEIR) mitigation measures add dozens of additional mandates to the total CAP measure list.⁷

O5b-13

While the Draft CAP states the County’s GHG reduction target will be achieved by successfully implementing five core measures,⁸ it imposes more than 100 additional measures on future County projects. Moreover, the Draft CAP fails to disclose quantified GHG emission reductions, estimated costs, or sources of funding for almost all of the 100 mandatory CAP measures. Even if the County were inclined to allow “equivalent” GHG reductions in lieu of CAP-prescribed measures, the CAP provides no methodology for calculating how much GHG reduction is attributable to each measure.

O5b-14

O5b-15

The Draft CAP explains that any project that fails to comply with all CAP measures would be inconsistent with the CAP, be deemed to have a significant adverse GHG impact and need to adopt “all feasible” mitigation measures as well as justify with substantial evidence why the project could not comply with each and every measure.⁹ However, of the five core measures that result in the bulk of the GHG reductions, only Measure W1, “Institutionalize Sustainable Waste Systems and Practices,” falls within the jurisdictional control of the County. The remaining four core measures fall outside of County control:

O5b-16

O5b-17

- Measure T6: “Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales.” The County’s role in achieving this objective is most clear in the vehicle purchasing decisions by the County, and in mandating ZEV-charging infrastructure. The County cannot lawfully ban the sale or use of non-ZEV vehicles, yet the Draft CAP demands that 68% of all light duty vehicles (pickup trucks, vans, and cars) sold in the County be ZEVs by 2030 and 100% by 2035. This is state law, authorized only with approval by the US EPA, but its inclusion accounts for 30.5% of the GHG reductions stated in the Draft CAP. These reductions would be achieved with or without the Draft CAP.
- Measure ES2: “Procure Zero-Carbon Electricity.” The County’s performance metrics for this goal rely on state laws that already require a renewable energy electric grid, and state and local utility mandates and programs already in place and slated for expansion. The Draft CAP can commit the County to procure only zero carbon electricity, but the Draft CAP also requires 96% of community participation in this zero-carbon electricity mandate by 2030. The County lacks the legal jurisdiction to mandate this outcome for existing and future residents and businesses.
- Measure E1: “Transition Existing Buildings to All-Electric.” The Draft CAP demands that 80% of existing residences, 60% of existing non-residential buildings, and

O5b-18

O5b-19

O5b-20

⁶ Draft CAP, Table 3-1, Page 3-3. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA_County_2045-CAP_Rev_Public_Draft_March_2023_Chapters.pdf. Accessed: May 2023.

⁷ Draft CAP Recirculated Draft Program Environmental Impact Report, Table ES-2, Page ES-20. Available at: <https://planning.lacounty.gov/wp-content/uploads/2023/04/LA-2045-CAP-Recirculated-Draft-Program-EIR.pdf>. Accessed: May 2023.

⁸ Draft CAP, Page 3-5. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA_County_2045-CAP_Rev_Public_Draft_March_2023_Chapters.pdf. Accessed: May 2023.

⁹ Draft CAP, Page 1-5. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA_County_2045-CAP_Rev_Public_Draft_March_2023_Chapters.pdf. Accessed: May 2023.

100% of renovations, include only electric, not natural gas, service. While the County can mandate this transition for its own buildings, the United States Court of Appeals for the Ninth Circuit has recently confirmed that local governments cannot prohibit the use of natural gas in buildings or appliances in new buildings because this has been preempted under federal law.¹⁰ Removing natural gas service from existing structures is likewise preempted. Therefore, this CAP measure is beyond the County’s jurisdiction.

O5b-20 (cont)

- Measure T8: “Accelerate Freight Decarbonization.” State and federal litigation is pending over the extent to which the state can mandate heavy duty EV trucks. The County CAP can require measures such as installation of EV chargers to facilitate this transition, but achieving this freight decarbonization outcome will be dependent on legal proceedings that are outside the County’s jurisdiction and control.

O5b-21

4. The Draft CAP fails to consider the implementation challenges associated with the proposed Offsite Reduction Plan.

The CAP requires that project applicants that cannot demonstrate consistency with every item in the Checklist instead fund projects that will generate equivalent reductions in LA County via the County’s Offsite GHG Reduction Program. The County plans to create its own GHG offsite registry so that project applicants can comply with this requirement. At the time of this Draft CAP publication, the County has not yet created this offset registry, nor provided any details about its methodology or implementation. The Draft CAP has not demonstrated that this offsite GHG reduction program would be available or able to achieve the required GHG reductions.

O5b-22

Appendix F of the Draft CAP provides examples of six offsite project types that would qualify under this program. However, these examples are either already required under existing State or County regulations, or for that matter the Draft CAP. For example, the Draft CAP proposes that project applicants can fund local building solar programs as part of their offsite GHG reduction program. However, the Draft CAP would require that new projects utilize 100% zero-carbon electricity on-site and the Title 24 2022 Building Energy Efficiency Standards already contain mandatory requirements for solar readiness (Note, these are not the same requirement). Therefore, an applicant could not use funding of local building solar programs as part of the offsite GHG reduction program, as the reductions would not be in addition to reductions required by existing requirements.

O5b-23

The Draft CAP also rejects use of the CARB-approved Net-Zero GHG compliance pathway by expressly disallowing GHG reductions achieved by CARB-approved GHG offsets. Instead, the Draft CAP allows for a County-only GHG reduction offset credit program, but includes zero information about the cost, feasibility, schedule, or scale of any such future program. The Draft CAP demands that GHG reductions achieved by projects must be fully additional to federal, state, and local law mandates in order to count as GHG reductions in any future County offset program.

O5b-24

Given the existing comprehensive regulatory requirements, it will be extremely difficult (and expensive) for project applicants to implement GHG reduction programs within the County. The Draft CAP has neglected to report the potential cost of their proposed offsite GHG reduction program, which could potentially be at much higher costs than comparable programs that could be equally effective at reducing GHG emissions.

O5b-25

¹⁰ California Restaurant Association vs. City of Berkeley. No. 21-16278. United States Court of Appeals for the Ninth Circuit, 2022. Available at: <https://cdn.ca9.uscourts.gov/datastore/opinions/2023/04/17/21-16278.pdf>. Accessed: May 2023.

The Draft CAP misleadingly references the Scoping Plan to suggest that only local reductions are recommended. The Scoping Plan recommends a tiered approach that offers applicants some flexibility. The exact language of the Scoping Plan reads:

*"If a project needs further GHG reductions after adoption of all feasible local, off-site mitigation options, **applicants should next consider non-local, off-site mitigation...**"¹¹*

O5b-26

The Scoping Plan prioritizes onsite and local measures but allows non-local measures and offset credits. The Draft CAP should follow the precedent set by the Scoping Plan and allow a tiered approach to offset credit mitigation to address the need for GHG reduction.

5. The Draft CAP should not be adopted as a component of the County's General Plan

The County approved the only major mixed use master planned communities recognized by the California Air Resources Board (CARB) to have achieved Net Zero GHG. The Draft CAP does not create any feasible new Net Zero GHG compliance pathway for any project, undermining CARB's resolution to endorse net zero GHG project outcomes similar to those already achieved. The Draft CAP only creates a net zero GHG compliance pathway for like-kind replacement projects that emit less GHG on the same site. This outcome is easily achieved for replacement projects, but there is no pathway provided for projects that would include new uses on the same site or increase land use densities. The Draft CAP would result in housing projects that are in full compliance with the Housing Element and every existing GHG reduction mandate being in violation of the County's General Plan.

O5b-27

CARB's Scoping Plan encourages local Climate Action Plans to support the State's goals, stating:

"California's overall state goal of achieving carbon neutrality no later than 2045 can also inform GHG reduction targets at individual community levels, and some communities or regions may be able to reach neutrality themselves. However, it is important to design targets in ways that support overall state goals, recognizing that each region has distinctive sources and systems."¹²

O5b-29

The Draft CAP should be revised to exclude measures that are in conflict with other County-approved plans, policies, and projects. Once included in the General Plan, compliance with the Draft CAP would be mandatory. Neither elected officials nor staff could authorize deviations from the Draft CAP without amending the General Plan. Third parties seeking to block funding or approvals of infrastructure, job-creation, and housing projects could also sue the County by alleging failure to fully comply with the General Plan; applicants receiving County approvals for such projects would also be targets for such lawsuits.

O5b-30

O5b-31

Inclusion of the Draft CAP in the General Plan would also create new County obligations and expand litigation risks under CEQA. As the Draft CAP itself explains, any project that failed to comply with all applicable requirements would be deemed to conflict with an environmental component of the General Plan. These conflicts would trigger the necessity for an Environmental Impact Report (EIR), and preclude the County or applicants from making use of less costly, less time-consuming, and less litigious CEQA compliance pathways. The Draft CAP specifies that for each non-compliant CAP measure, the "infeasibility" of such a measure must be demonstrated with substantial evidence. Each one

O5b-32

O5b-33

¹¹ California Air Resource Board, 2022 Scoping Plan. Appendix D – Local Actions, Page 31. Available at: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed: May 2023.

¹² California Air Resource Board, 2022 Scoping Plan. Appendix D – Local Actions, Page 18. Available at: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed: May 2023.

of these "infeasibility" findings, as well as the sufficiency of any alternative CAP measure, is also subject to challenge in CEQA and General Plan compliance lawsuits.

O5b-34

The Draft CAP locks county elected and appointed officials, and voters, into rigid and long-term compliance obligations. Once adopted, the CAP cannot be amended without undergoing further CEQA review inclusive of adoption of "all feasible mitigation" to achieve either the same or a modified GHG reduction goal.

O5b-35

San Diego County adopted what its Board of Supervisors believed to be an aspirational CAP into its General Plan in 2018.¹³ The CAP was fully-enforceable under the General Plan and was considered a CEQA mandate. Litigants have an unbroken string of lawsuit successes in blocking multiple new housing projects in San Diego County. San Diego County attempted to amend its CAP and allow the use of CARB-approved and other GHG offsets to mitigate GHG emissions, but that was unsuccessful.

O5b-36

An aspirational CAP vote taken decades ago by the San Diego County Board of Supervisors has become one of the most formidable anti-housing, anti-growth tools in California history. Solano County suffered the same fate when its General Plan aspirational CAP also failed to pass a no-growth advocacy CEQA lawsuit challenge. Looking at this woeful record of local agency losses when CAPs were included in General Plans, even the most pro-climate jurisdictions in California (e.g., San Francisco), have recently opted not to include CAPs in their General Plans, while others have carefully drafted CAPs to assure that they are clear, feasible, implementable, and operate in alignment with and support other approved General Plan elements, as well as other policy priorities, plans and obligations.

O5b-37

O5b-38

The County's current General Plan CAP was carefully crafted to be fully attainable, and the County has prevailed in CEQA lawsuits challenging projects based on alleged inconsistency with the present CAP. In contrast, this Draft CAP's inclusion of technically and legally infeasible measures, as well as undefined and unquantified measures, and its rejection of lawful and feasible climate compliance mandates, will result in litigation challenging infrastructure, housing, job-creation, and other projects. There is no federal, state or County obligation to approve even an aspirational policy CAP, let alone adopt a CAP into the General Plan.

O5b-39

Once adopted into the General Plan, the Draft CAP cannot be modified without additional CEQA review. Future amendments that may make the CAP feasible can themselves be litigated for many years while progress on projects comes to a grinding halt. The Draft CAP should be substantially revised into an aspirational policy document that focuses solely on feasible GHG reduction measures which are within the jurisdiction of the County to implement, operate in full alignment and support of the County's economic development, housing, and infrastructure goals, and do not increase the cost, time, or litigation risks for the County or applicants. The Draft CAP should separately quantify GHG reductions from the successful implementation of statewide laws and mandates, and present what additional measures, if any, should be undertaken by the County. We ask that the county do an economic impact study prior to any final adoption of the plan.

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O5b-41

O5b-42

BizFed supports California's global climate leadership, and our members are committed to assuring that state and local climate measures can be feasibly implemented in furtherance of other critical California priorities such as the continued growth of the California economy, the increased equity and upward mobility for our working families and employers, the funding and timely completion of urgently needed transportation, water and other infrastructure, and the implementation of the housing elements approved by our cities and counties to solve our regional housing crisis. We look forward to continuing our work with LA County to see progress made in a way that is equitable and lasting.

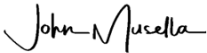
O5b-43

¹³ San Diego County 2018 Climate Action Plan. Available at: <https://www.sandiegocounty.gov/content/sdc/sustainability/climateactionplan/2018cap.html>. Accessed: May 2023.

Thank you for your consideration of our letter and we look forward to meeting with you in the near future to review our letter and talk in detail about our concerns. If you have any questions, please contact Sarah Wiltfong, BizFed’s Director of Policy and Advocacy, at sarah.wiltfong@bizfed.org.

O5b-44

Sincerely,



John Musella
BizFed Chair



David Fleming
BizFed Founding Chair



Tracy Hernandez
BizFed Founding CEO



David Englin
BizFed President

BizFed Association Members

7-11 Franchise Owners Association for SoCal
 Action Apartment Association
 Alhambra Chamber
 American Beverage Association
 Antelope Valley Chamber formerly Lancaster Chamber of Commerce
 Apartment Association of Greater Los Angeles
 Apartment Association, CA Southern Cities, Inc .
 Arcadia Association of Realtors
 AREAA North Los Angeles SFV SCV
 Armenian Trade & Labor Association
 Arts District Los Angeles
 Associated Builders & Contractors SoCal (ABC SoCal)
 Association of Club Executives
 Association of Independent Commercial Producers
 AV Edge California
 Azusa Chamber
 Beverly Hills Bar Association
 Beverly Hills Chamber
 BioCom
 Black Business Association
 BNI4SUCCESS
 Bowling Centers of SoCal
 Boyle Heights Chamber of Commerce
 Building Industry Association - LA/Ventura Counties
 Building Industry Association of Southern California
 Building Industry Association- Baldyview
 Building Owners & Managers Association of Greater Los Angeles
 Burbank Association of Realtors
 Burbank Chamber of Commerce
 Business and Industry Council for Emergency Planning and Preparedness
 Business Resource Group
 CABIA California Business and Industrial Alliance
 Calabasas Chamber of Commerce
 CalAsian Chamber
 CalChamber
 California Apartment Association- Los Angeles
 California Asphalt Pavement Association
 California Bankers Association
 California Business Properties
 California Business Roundtable
 California Cannabis Industry Association
 California Cleaners Association
 California Contract Cities Association
 California Fashion Association
 California Gaming Association
 California Grocers Association
 California Hispanic Chamber
 California Hotel & Lodging Association
 California Independent Oil Marketers Association (CIOMA)
 California Independent Petroleum Association
 California Life Sciences Association
 California Manufacturers & Technology Association
 California Metals Coalition
 California Natural Gas Producers Association
 California Restaurant Association
 California Retailers Association
 California Self Storage Association
 California Small Business Alliance
 California Society of CPAs - Los Angeles Chapter
 California Trucking Association+
 Carson Chamber of Commerce
 Carson Dominguez Employers Alliance
 Central City Association
 Century City Chamber of Commerce
 Carritos Regional Chamber of Commerce
 Chatsworth Porter Ranch Chamber of Commerce
 Citrus Valley Association of Realtors
 Claremont Chamber of Commerce
 Commercial Industrial Council/Chamber of Commerce
 Compton Chamber of Commerce
 Construction Industry Air Quality Coalition
 Construction Industry Coalition on Water Quality
 Council on Infill Builders
 Crenshaw Chamber of Commerce
 Culver City Chamber of Commerce
 Downey Association of REALTORS

Downey Chamber of Commerce
 Downtown Alhambra Business Association
 Downtown Center Business Improvement District
 Downtown Long Beach Alliance
 El Monte/South El Monte Chamber
 El Segundo Chamber of Commerce
 Employers Group
 Encino Chamber of Commerce
 Energy Independence Now EIN
 Engineering Contractor's Association
 FastLink DTLA
 Filipino American Chamber of Commerce
 Friends of Hollywood Central Park
 FuturePorts
 Gardena Valley Chamber
 Gateway to LA
 Glendale Association of Realtors
 Glendale Chamber
 Glendora Chamber
 Greater Antelope Valley AOR
 Greater Bakersfield Chamber of Commerce
 Greater Lakewood Chamber of Commerce
 Greater Leimert Park Crenshaw Corridor BID
 Greater Los Angeles African American Chamber
 Greater Los Angeles Association of Realtors
 Greater Los Angeles New Car Dealers Association
 Greater San Fernando Valley Chamber
 Harbor Association of Industry and Commerce
 Harbor Trucking Association
 Historic Core BID of Downtown Los Angeles
 Hollywood Chamber
 Hong Kong Trade Development Council
 Hospital Association of Southern California
 Hotel Association of Los Angeles
 Huntington Park Area Chamber of Commerce
 ICBWA- International Cannabis Women Business Association
 Independent Cities Association
 Industrial Environmental Association
 Industry Business Council
 Inglewood Board of Real Estate
 Inland Empire Economic Partnership
 International Franchise Association
 Irwindale Chamber of Commerce
 Kombucha Brewers International
 La Cañada Flintridge Chamber
 LA Coalition
 LA Fashion District BID
 LA South Chamber of Commerce
 Larchmont Boulevard Association
 Latin Business Association
 Latino Food Industry Association
 Latino Restaurant Association
 LAX Coastal Area Chamber
 League of California Cities
 Long Beach Area Chamber
 Long Beach Economic Partnership
 Los Angeles Area Chamber
 Los Angeles Economic Development Center
 Los Angeles Gateway Chamber of Commerce
 Los Angeles Latino Chamber
 Los Angeles LGBTQ Chamber of Commerce
 Los Angeles Parking Association
 Los Angeles World Affairs Council/Town Hall Los Angeles
 MADIA
 Malibu Chamber of Commerce
 Manhattan Beach Chamber of Commerce
 Marketplace Industry Association
 Monrovia Chamber
 Motion Picture Association of America, Inc.
 MoveLA
 MultiCultural Business Alliance
 NAIOP Southern California Chapter
 NAREIT
 National Association of Minority Contractors
 National Association of Tobacco Outlets
 National Association of Women Business Owners
 National Association of Women Business Owners - LA
 National Association of Women Business Owners- California
 National Federation of Independent Business Owners California
 National Hookah
 National Latina Business Women's

Association
 Orange County Business Council
 Orange County Hispanic Chamber of Commerce
 Pacific Merchant Shipping Association
 Panorama City Chamber of Commerce
 Paramount Chamber of Commerce
 Pasadena Chamber
 Pasadena Foothills Association of Realtors
 PGA
 PhRMA
 Pico Rivera Chamber of Commerce
 Planned Parenthood Affiliates of California
 Pomona Chamber
 Rancho Southeast REALTORS
 ReadyNation California
 Recording Industry Association of America
 Regional CAL Black Chamber, SVF
 Regional Hispanic Chambers
 San Dimas Chamber of Commerce
 San Gabriel Chamber of Commerce
 San Gabriel Valley Economic Partnership
 San Pedro Peninsula Chamber
 Santa Clarita Valley Chamber
 Santa Clarita Valley Economic Development Corp.
 Santa Monica Chamber of Commerce
 Sherman Oaks Chamber
 South Bay Association of Chambers
 South Bay Association of Realtors
 South Gate Chamber of Commerce
 South Pasadena Chamber of Commerce
 Southern California Contractors Association
 Southern California Golf Association
 Southern California Grantmakers
 Southern California Leadership Council
 Southern California Minority Suppliers Development Council Inc.
 Southern California Water Coalition
 Southland Regional Association of Realtors
 Sportfishing Association of California
 Structural Engineers Association of Southern California
 Sunland/Tujunga Chamber
 Sunset Strip Business Improvement District
 Torrance Area Chamber
 Tri-Counties Association of Realtors
 United Cannabis Business Association
 United Chambers - San Fernando Valley & Region
 United States-Mexico Chamber
 Unmanned Autonomous Vehicle Systems Association
 US Green Building Council
 US Resiliency Council
 Valley Economic Alliance, The
 Valley Industry & Commerce Association
 Venice Chamber of Commerce
 Vermont Slauson Economic Development Corporation
 Veterans in Business
 Vietnamese American Chamber
 Warner Center Association
 West Hollywood Chamber
 West Hollywood Design District
 West Los Angeles Chamber
 West San Gabriel Valley Association of Realtors
 West Valley/Warner Center Chamber
 Western Electrical Contractors Association
 Western Manufactured Housing Association
 Western States Petroleum Association
 Westside Council of Chambers
 Whittier Chamber of Commerce
 Wilmington Chamber
 Women's Business Enterprise Council
 World Trade Center



Key Issues for the County of Los Angeles 2045 Climate Action Plan (2045 CAP) Recirculated Draft Program EIR (DPEIR)

1. The DPEIR does not adequately quantify greenhouse gas (GHG) reductions associated with the 2045 CAP’s proposed measures and actions.

a. The 2045 CAP identifies 10 strategies, 25 measures, and many implementing actions to reduce GHG emissions in unincorporated LA County. The DPEIR does not quantify reductions from 7 of the 25 measures listed in the CAP.

i. Appendix D of the DPEIR, also included as Appendix B of the 2045 CAP, describes anticipated emission reductions resulting from the CAP.¹ However, the analysis in this appendix is incomplete. This appendix does not quantify emissions from any of the following measures listed in the CAP:

O5-45

- I. ES4: Increase Energy Resilience
- II. S5: Establish GHG Requirements for New Development
- III. T5: Limit and Remove Parking Minimums
- IV. E3: Other Decarbonization Actions
- V. E5: Increase Use of Recycled Water and Gray Water Systems
- VI. W2: Increase Organic Waste Diversion
- VII. A2: Support Regenerative Agriculture

ii. The DPEIR does not adequately support the 2045 CAP as it has not demonstrated the GHG reduction value of these measures.

O5-46

b. Appendix D of the DPEIR also does not quantify reductions from any of the mandatory actions cited in the 2045 CAP checklist, which is included as Appendix F of the 2045 CAP.²

i. Several of the checklist items cannot be quantified because they rely on future ordinances or plans that have not yet been developed. The DPEIR relies upon future programs to generate reductions, but as those programs have not been evaluated as part of CEQA, adopted, or demonstrated to be successful, the DPEIR similarly cannot be approved under CEQA. Programs that have been cited in the 2045 CAP but were not evaluated as part of the DPEIR or other CEQA documentation include the following:

O5-47

- I. Zero Emission Vehicle Master Plan
- II. Building Performance Standards
- III. Carbon Intensity Limits
- IV. ZNE Ordinance
- V. All-Electric New Buildings Ordinance

O5-48

¹ LA County Revised Draft 2045 Climate Action Plan Appendix B: Emissions Forecasting and Reduction Methods. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA-County-2045-CAP_Rev_PublicDraft_AppB-Reductions.pdf. Accessed: May 2023.

² LA County Revised Draft 2045 Climate Action Plan Appendix F: 2045 Climate Action Plan Consistency Review Checklist. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA-County-2045-CAP_Rev_PublicDraft_AppendixF-Checklist.pdf. Accessed: May 2023.

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| VI. Net Zero Water Ordinance | O5-48 (cont) |
| ii. The DPEIR is inadequate as it has not substantiated how these 2045 CAP checklist items will help achieve the GHG reduction goals and it cannot be assessed if these are feasible. [Per CEQA Statute Article 9, §15126.4, an EIR shall only include feasible mitigation measures. ³ If the plans that govern the mitigation measures are not in place, and the mitigation measure requirements are still unknown, then complying with these measures would automatically be considered infeasible. | O5-49 O5-50 O5-51 |
| c. Since the DPEIR does not evaluate GHG emissions reductions for several required 2045 CAP measures and actions, the DPEIR has not adequately provided a basis in support of the 2045 CAP such that project applicants can propose equivalent alternatives for these measures as allowed for in the CAP. | O5-52 |
| i. The 2045 CAP allows project applicants to identify alternative project emission reduction measures if they do not comply with certain items in the checklist. However, if the checklist items are not quantified in the DPEIR, or if they rely on ordinances and plans that have not been vetted or approved through CEQA, then project applicants cannot demonstrate that proposed alternatives are quantitatively equivalent to these measures. | O5-53 |
| ii. Unless the DPEIR is updated to quantify reductions from the 2045 CAP checklist items, project applicants will be unable to demonstrate conformity with the plan, and be determined to have “significant and unavoidable” GHG impacts. | O5-54 |
| d. Overall, the DPEIR has not adequately evaluated the GHG reductions associated with the 2045 CAP. It relies on plans and ordinances that have not been approved through CEQA, and does not quantify reductions associated with several actions and measures that are required within the 2045 CAP. [At a minimum, the DPEIR should be updated and recirculated for review with a revised analysis and checklist approach that makes conformance with unadopted programs voluntary until the programs have been evaluated under CEQA, adopted, and demonstrated to be successful. The DPEIR’s GHG analysis has not adequately supported the reduction targets the 2045 CAP has stated it will achieve. ⁴ | O5-55 O5-56 |
| 2. The DPEIR does not provide adequate information to assess GHG impacts because the essential alternative compliance pathways are not quantified and the DPEIR omits the critical element—a future Offsite GHG Reduction Program to facilitate LA County offsite reductions that will be adopted sometime in the future but with no additional details. This Program lacks technical details and cannot be meaningfully evaluated from a technical standpoint: | O5-57 |
| a. First, neither the 2045 CAP nor the DPEIR provides any assessment of feasibility to identify and implement GHG reduction programs within Los Angeles County. While it is laudable to prioritize such projects, it is likely to be difficult, and perhaps impossible, for projects to meaningfully obtain GHG emissions reductions through programs located solely in the County. [For that reason, the CARB Scoping Plan has a tiered approach to mitigation, prioritizing onsite and local measures, followed by non-local | O5-58 O5-59 |

³ Association of Environmental Professionals. 2023 California Environmental Quality Act Statute & Guidelines. Available at: https://www.califaep.org/docs/CEQA_Handbook_2023_final.pdf. Accessed: May 2023.

⁴ LA County Revised Draft 2045 Climate Action Plan. Page ES – 4. Available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA_County_2045-CAP_Rev_Public_Draft_March_2023_Chapters.pdf. Accessed: May 2023

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| <p>measures.⁵ The CAP provides no technical justification nor feasibility assessment for deviating from the Scoping Plan’s recommended prioritization.</p> | <p>O5-59 (cont)</p> |
| <p>b. Second, neither the 2045 CAP nor the DPEIR provides any assessment of cost feasibility of such a program. The current lack of such programs is a clear indication of the likely higher costs associated with local programs compared to non-local programs. The 2045 CAP and the DPEIR do not technically demonstrate that any such programs are feasible at reasonable costs. Until the cost effectiveness of such a program is proven, there is no basis to assume this alternative offers a viable pathway for the 2045 CAP.</p> | <p>O5-60</p> |
| <p>c. Specifically, the documents released by the LA County for the 2045 CAP have not adequately demonstrated feasibility for the offsite reduction measure cited in Appendix F:</p> | <p>O5-61</p> |
| <p>i. <u>Energy storage and microgrids</u>: The Checklist proposes funding for or creation of a microgrid to balance generation from renewable sources and distributed controllable generation, or to deploy a battery storage system. The CAP should demonstrate that this is feasible and cost effective for projects to employ and what emission reductions are achievable with this action.</p> | <p>O5-62</p> |
| <p>ii. Truck and bus electrification programs:</p> <ol style="list-style-type: none"> 1. Checklist item 9 requires that projects decarbonize their truck fleets. 2. CARB has passed or proposed many regulations that also work towards this goal, notably Innovative Clean Transit, Advance Clean Trucks, and Advanced Clean Fleets. 3. South Coast Air Quality Management District’s Warehouse Indirect Source Rule promotes heavy-duty fleet decarbonization. 4. All of these programs have recognized that there is a period of phase in that needs to occur with this new technology. The CAP has not demonstrated that the requirement is feasible in the context of these existing regulations and what reductions could be achieved by any such programs. | <p>O5-63</p> |
| <p>iii. Hydrogen fuel: The CAP proposes that projects to fund or develop programs that provide renewable hydrogen fueling stations for nearby truck fleets.</p> <ol style="list-style-type: none"> 1. This action is already required at goods movement facilities by checklist Item 9. 2. Hydrogen fuel projects would come at a huge cost to project applicants. Generating enough emission reductions to offset emissions could require applicants to fund hydrogen fuel infrastructure, distribution equipment, fueling stations, new vehicles that utilize hydrogen, and system maintenance. To date, the CEC has spent \$166 million to support 86 hydrogen stations in California, according to their 2022 Joint Agency Staff Report on AB 8. 3. The CAP has not demonstrated that this is feasible for projects to achieve and what reductions could be achieved by any such programs. | <p>O5-64</p> |
| <p>iv. The Offsite Reduction Program’s requirement to perform all offsite reduction projects within LA County and prohibit other forms of offset credits creates unnecessary limitations for projects and LA County to effectively achieve GHG reductions to address global climate change.</p> | <p>O5-65</p> |

⁵ California Air Resource Board, 2022 Scoping Plan. Appendix D – Local Actions, Page 31. Available at: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed: May 2023.

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| <p>1. First, it is extremely difficult and expensive to identify and implement GHG reduction programs within Los Angeles County. Given the parameters required in the 2045 CAP, the 2045 CAP has not demonstrated what amount of GHG reductions are feasible in this program. The Scoping Plan has a tiered approach to offset credit mitigation to address the need for GHG reduction, prioritizing onsite and local measures, followed by non-local measures and offset credits.</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-66</div> |
| <p>2. Second, the 2045 CAP has ignored the potential cost of the offsite GHG reduction program, which likely will carry much higher costs than comparable programs that are equally effective at reducing GHG emissions. The 2045 CAP should demonstrate that the offsite GHG program is feasible in terms of cost.</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-67</div> |
| <p>3. Third, creating and obtaining non-local offsite reductions through voluntary market credit registries is a multi-year process, and includes identification of reduction opportunities, funding of these opportunities, quantification of reductions, and verification of reductions. Most projects will need to fund offsite reductions prior to beginning construction, and thus the timing requirements may render this an infeasible requirement. The 2045 CAP thus needs to demonstrate how this will be feasible from a timing perspective.</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-68</div> |
| <p>3. The DPEIR does not properly analyze the adverse impacts on population and housing, nor the inconsistency with the Project Objective of providing a diverse range of housing. The DPEIR should analyze how the CAP may impair many types of housing projects by imposing a mandatory regulatory framework on every new CEQA project. [The DPEIR and 2045 CAP should</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-69</div> |
| <p>(1) demonstrate the link between the mandatory mitigation and the impact or (2) establish that a project will only be responsible for its proportional contribution to address the cumulative impact. In particular:</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-70</div> |
| <p>a. The checklist, as currently designed, obligates an applicant to implement certain types of GHG reduction strategies for <i>policy grounds unrelated to GHG reductions</i>. While this may be an aspirational goal for the County, it does not establish a nexus between the required mitigation and a project’s impacts if equally effective mitigation is available to address the impact.</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-71</div> |
| <p>b. The checklist, as currently designed, imposes significant costs and procedural hurdles on the applicant without evidence from the County that those burdens will be roughly proportional to the impact, particularly in light of the availability equally effective GHG mitigation that is less burdensome.</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-72</div> |
| <p>c. To address this concern, the County should establish greater flexibility to allow an applicant to identify appropriate alternatives for the project based on performance standards or criteria based on climate science and not other policy grounds.</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-73</div> |
| <p>4. The DPEIR did not properly analyze project alternatives and did not select the environmentally superior alternative.</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-74</div> |
| <p>a. Alternative 1 (Carbon Offset Alternative) is the appropriate environmentally superior alternative. The DPEIR does not explain in enough detail why Alternative 1, Carbon Offset Alternative, is not the environmentally superior alternative. The DPEIR acknowledges that the “no project alternative” would have the least environmental impacts because it would not implement the CAP and therefore there would be no physical changes to the environment associated with its policies. But, it does not acknowledge that the same logic would apply to Alternative 1, which reduces the number of projects needed in the County because offsets could be used in place of</p> | <div style="border: 1px solid black; padding: 2px; width: 40px; margin: auto;">O5-75</div> |

some CAP measures. The County takes credit for reduced impacts from Alternative 3 (Lower Targets Alternative) because fewer projects would be built, but it doesn't take credit for any reduction in projects associated with Alternative 1, despite acknowledging that "offsets could be used to replace any of the measures in the 2045 CAP."⁶ Therefore, the County's conclusion that Alternative 3 (Lower Targets Alternative) is the environmentally superior alternative is not supported.

O5-75 (cont)

b. **The County's characterization of Alternative 3 (Lower Targets Alternative) is misleading.** The DPEIR states that Alternative 3, which is what the DPEIR recognizes is the "environmentally superior alternative," would "likely facilitate the same number of projects through 2045, resulting in the same impacts through 2045."⁷ However, this ignores the fact that by delaying the implementation of GHG reduction activities that have other environmental impacts, new, less impactful technologies may be developed that have the same or greater GHG reduction potential. In other words, back-loading the required reductions will not necessarily result in the same overall impact to the environment as the proposed Project because it will give more time for new technologies (e.g., direct air capture) to emerge.

O5-76

c. **Increasing co-benefits is not a project objective and is therefore not relevant for comparing alternatives.** While Alternative 1 would result in fewer co-benefits, it does not appear that increasing co-benefits is a Project Objective. Therefore, that factor should not be used to discount Alternative 1.

O5-77

d. **The analysis of impacts was cursory.** The DPEIR only includes a cursory analysis of impacts compared to the proposed Project. For example, the aesthetic impacts are determined to be the same as the proposed Project. However, this ignores the fact that fewer projects would be constructed with Alternative 1. Another example is that the analysis found that Alternative 1 would have greater impacts with respect to hazards associated with projects in an airport land use plan because "projects facilitated by Alternative 1 could include wind projects built in the region."⁸ The DPEIR offers no evidence why Alternative 1 would include more wind projects than the proposed Project.

O5-78

5. The 2045 CAP creates an overall approach and requirement that will be challenging for most projects to achieve. The overly ambitious approach has created implementation challenges for projects, which will create an undue burden on projects.

O5-79

a. The 2045 CAP provides no technical justification for why GHG reductions must occur in the prescriptive categories identified by the Appendix F checklist. Additionally, many of the prescriptive strategies in the checklist are not quantified in the DEIR GHG analysis. The 2045 CAP should provide additional calculations to demonstrate the effect of all categories and measures for proper public review.

O5-80

b. An individual project's GHG emissions can be avoided, reduced or mitigated through a variety of mechanisms and programs. While the County may have non-GHG policy reasons to encourage reductions across a variety of sectors—and it may implement Countywide programs to achieve those objectives—individual projects should not be forced into a one-size-fits-all framework without a technical basis under. For example, if Project A is able to achieve GHG reductions by avoiding and reducing all of its GHG emissions through comprehensive water and energy conservation and alternative

O5-81

⁶ 2045 Climate Action Plan Recirculated Draft Program Environmental Impact Report. Page 4-14. Available at: <https://planning.lacounty.gov/wp-content/uploads/2023/04/LA-2045-CAP-Recirculated-Draft-Program-EIR.pdf>. Accessed: May 2023.

⁷ 2045 Climate Action Plan Recirculated Draft Program Environmental Impact Report. Page 4-21. Available at: <https://planning.lacounty.gov/wp-content/uploads/2023/04/LA-2045-CAP-Recirculated-Draft-Program-EIR.pdf>. Accessed: May 2023.

⁸ 2045 Climate Action Plan Recirculated Draft Program Environmental Impact Report. Page 4-37. Available at: <https://planning.lacounty.gov/wp-content/uploads/2023/04/LA-2045-CAP-Recirculated-Draft-Program-EIR.pdf>. Accessed: May 2023.

technologies, there is no technical basis to require Project A to implement other measures addressing GHG emissions in other sectors, such as solid waste or agricultural resources. Under this hypothetical, Project A would have already eliminated its potential to impact climate change in accordance with CEQA. Forcing Project A to implement further GHG mitigation measures would “double mitigate” the impact, which is not technically justified in the 2045 CAP and/or require onerous (potential impossible) demonstrations of equivalency to the measures listed in the 2045 CAP.

O5-81 (cont)

c. To the contrary, it is common best practice to account for the inherent differences between a wide range of projects by providing flexibility and alternative compliance pathways. CAPCOA’s Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity provides a suite of GHG reduction measures, but says that projects are ‘encouraged to carefully review the measure factsheets to determine which measures are most applicable to their project and capable of achieving their GHG reduction goals.’⁹ The CAP Checklist creates an inflexible framework with a burden of proof that may be impossible to meet, which neither the Scoping Plan nor the CAPCOA Handbook require.

O5-82

d. The 2045 CAP does not provide adequate guidance on the significance threshold a GHG analysis should assess if a Project does not fully complete the check list requirements. The wording and approach of the 2045 CAP creates an enormous burden on any project in this situation. In combination with a checklist that may not be able to met by most projects, this is creates additional burden for analysis and litigation risk for projects.

O5-83

i. Page F-14: Project Not Consistent with the 2045 CAP. Language suggests a project will have to show how it can reduce emissions equivalent to what the Checklist requires. And while the 2045 CAP uses the word “option to participate” in the Offsite Program, the approach of the 2045 CAP represents this as a mitigation measure to achieve reductions if the project cannot comply with all checklist items.

O5-84

e. The 2045 CAP structure appears to disqualify projects from demonstrating less-than-significant impacts unless they incorporate all required Checklist items. As such, there is no incentive (or ability) for projects to conduct a ‘full GHG analysis’ in the case of Checklist inconsistency.

O5-85

i. If a project cannot demonstrate consistency with the CAP, the project must prepare a “full” GHG analysis. However, even under that scenario, the CAP states that a project may cause a significant and unavoidable impact for not complying with an approved local GHG plan. Thus, a project would not be able to demonstrate less than significant impacts even with a full GHG analysis.

O5-86

ii. Further, the CAP would still impose all the checklist measures “to the extent feasible,” which does not have a scientific basis.

O5-87

iii. The point of the full GHG analysis would be to demonstrate whether the project has a less than significant GHG impact despite not being consistent with the checklist. Projects that conduct a full GHG analysis should be allowed to demonstrate whether the non-checklist approach results in less than significant GHG impacts. The current 2045 CAP structure does not provide a reasonable path forward for projects to comply, and good projects that do

O5-88

⁹ California Air Pollution Control Officers Association. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Chapter 3: Measures to Reduce GHG Emissions. Available at: https://www.caleemod.com/documents/handbook/full_handbook.pdf. Accessed: April 2023. Page 47.

achieve meaningful GHG reductions could be mired in onerous evaluations or CEQA challenges.

O5-88 (cont)

2.3.2.5 Letter O5: BizFed

This letter contains input on both the Revised Draft 2045 CAP and the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

- O5a-1 The County acknowledges the commenter’s support for the County and state’s climate leadership, commenter’s commitment to implementing feasible state and local GHG reduction measures, and statements regarding policies regarding housing, infrastructure, employment, and equality. In response to the comment’s assertion that unintended consequences that harm housing and job growth would undercut local and state climate goals, the comment does not provide specific detail or evidence as to how climate goals would be undercut such that no specific response can be provided.
- O5a-2 In response to the comment’s concerns about the Revised Draft 2045 CAP, the Revised Draft 2045 CAP neither creates a mandatory regulatory program for all projects that require CEQA review, per updated language, nor does it create a “moratorium” on small business, etc. To the contrary, the Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state’s GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.) Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project’s GHG impact analysis. See General Response 3 for further discussion regarding the process for project applicants.
- O5a-3 As discussed in response to comment O15-18 and in General Response 3, the Checklist does not mandate that all new projects achieve 300 jobs per acre. Draft 2045 CAP measure T2 (Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use) includes a *Countywide* performance goal of 300 jobs per acre by 2030; this is a goal for the entire County to meet by 2030 and represents an average value for Countywide job density. This is not a mandate for every individual new project. Please refer to responses to comments O15-18 and O15-19, along with General Response 3, which addresses how the Revised Draft 2045 CAP and Checklist applies to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.
- O5a-4 As discussed in General Response 3, the Checklist does not mandate that all new projects ensure that 90 percent of their water demand is met by alternative water sources or that 80 percent of agricultural irrigation uses be supplied exclusively by local water sources. Draft 2045 CAP Measure E5 includes a *Countywide* performance goal that 90

percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. Checklist item #21, *TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture*, is a voluntary Tier 2 item that encourages projects to implement water reuse strategies on-site through certain design elements such as using reclaimed water for outdoor uses and installing residential graywater systems. A project that could not meet this metric could still use the Checklist to streamline its GHG impact evaluation under CEQA. Please refer to General Response 3, which addresses how the Revised Draft 2045 CAP and Checklist applies to development projects.

- O5a-5 See General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program. This general response also includes a list of several existing offsite mitigation programs that are being used in a CEQA context to mitigate the direct impacts of a project on air quality or climate change. Refer to General Response 5, which addresses the comment’s concern regarding future ordinances and quantification of Revised Draft 2045 CAP measures and actions.
- O5a-6 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. Regarding the comment’s allegation regarding “prohibitively high costs” related to implementation of Revised Draft 2045 CAP measures and actions, CEQA states that economic effects of a project shall not be treated as significant effects on the environment. (CEQA Guidelines, § 15131.) Also see General Response 5, which addresses the Revised Draft 2045 CAP’s quantification of GHG emission reductions for strategies, measures, and actions.
- O5a-7 The Recirculated Draft PEIR is adequate under CEQA because it is written in plain language so as to be comprehensible to decisionmakers and the public. (See CEQA Guidelines, § 15140; *San Franciscans for Reasonable Growth v. City* (1987) 193 Cal.App.3d 1544, 1549.) In response to the comment’s concern regarding “mandatory obligations”, see General Response 3, which comprehensively addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects.
- O5a-8 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan as well as potential litigation. Also see General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects and addresses the concern regarding mandatory requirements of implementing the Revised Draft 2045 CAP strategies, measures, and actions.
- O5a-9 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. Also see General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects, as well as the feasibility of Revised Draft 2045 CAP measures and actions.

O5a-10 The County understands these concerns and has added a new subsection in Revised Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, “Guidance for Quantifying GHG Reductions from Alternative Measures” to help project applicants choose this pathway. This new section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative project emissions reduction measure must achieve. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail. The addition of this subsection does not constitute significant new information that would trigger recirculation of the Recirculated Draft PEIR under CEQA Guidelines section 15088.5. Rather, it serves to clarify and amplify the content of the Recirculated Draft PEIR.

Also see General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist, the use of alternative project emissions reduction measures, and the feasibility of Revised Draft 2045 CAP measures and actions as well as General Response 5, which addresses the Revised Draft 2045 CAP’s quantification of GHG emission reductions for strategies, measures, and actions.

O5a-11 Regarding the comment’s request for an additional 60 days of public review and a series of workshops with stakeholders, CEQA presumes the adequacy of a 45-day review period for a Draft PEIR (Pub. Resources Code, § 21091(a); CEQA Guidelines, § 15105) and explains that the public review period should not be longer than 60 days except in “unusual circumstances.” There are no extenuating circumstances here and as such, the standard 45-day review period is sufficient. Additionally, during those 45 days, the County hosted seven open meeting hours advertised as lunchtime office hours, posted on the project website and distributed via email an informational video on the Project, and held meetings with responsive stakeholder groups to facilitate review and discussion. In order to provide stakeholders additional time to review and understand the Revised Draft 2045 CAP and Recirculated Draft PEIR, and since changes to the Recirculated Draft PEIR were predicated on changes to the Revised Draft 2045 CAP, the Revised Draft 2045 CAP was released prior to the Recirculated Draft PEIR to offer additional review time to read the changes driving the analysis in the Recirculated Draft PEIR. For these reasons, the County believes that the 60-day public review period provided for the Revised Draft 2045 CAP and the 45-day public review period provided for the Recirculated Draft PEIR were sufficient to allow informed public comment.

O5a-12 As discussed in General Response 3, demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project’s GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Please see General Response 3 for further discussion regarding the process for project applicants. Also see General Response 6, which addresses

concerns regarding the proposed Offsite GHG Emissions Reduction Program. The County values stakeholder involvement and considers such participation an important component in the development of future County-initiated ordinances, policies, and programs implementing the Revised Draft 2045 CAP measures and actions.

- O5b-1 The Revised Draft 2045 CAP offers a voluntary CEQA streamlining opportunity for projects wishing to streamline their GHG impact analysis by demonstrating consistency with the Checklist. However, demonstrating compliance with the Checklist is not the exclusive path to achieve CEQA compliance, as projects that do not intend to streamline their GHG impact analysis would prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan as well as General Response 3, which addresses the process for project applicants.
- O5b-2 In response to the comment's specific concerns regarding alleged Revised Draft 2045 CAP conflicts with County priorities and feasibility of Revised Draft 2045 CAP measures and actions, please see Responses to Comments O5b-3 to O5b-26. Regarding the comment's concern with the Offsite GHG Reduction Program, please see General Response 6.
- O5b-3 Regarding the comment's concern regarding the County's economic goals and goals of the General Plan, the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan. General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP. The Revised Draft 2045 CAP measures are not inconsistent with General Plan goals, including those stated in the Housing Element. Rather, the Revised Draft 2045 CAP is a policy document that supports development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP.

Regarding the comment's concern about incorporation of Revised Draft 2045 CAP measures in future projects, there is a critical difference between Revised Draft 2045 CAP performance objectives (as identified in the Revised Draft 2045 CAP strategies, measures, and actions) and the requirements in the Checklist in order for new projects to use CEQA GHG analysis streamlining. The Recirculated Draft PEIR is intended to provide CEQA compliance for the County's measures and actions as described in the Revised Draft 2045 CAP. As such, the performance objectives in the Revised Draft 2045 CAP are *Countywide goals*, not requirements or mandates for individual projects; all project-level requirements in order for projects to use CEQA streamlining are identified in the Checklist itself. The Checklist would *not* be used as a tool for evaluating a project's consistency with the County's General Plan. Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their

project's GHG impact analysis. Please see General Response 3 for further discussion regarding the process for project applicants.

The comment incorrectly asserts that a project's failure to meet a job density of 300 jobs per acre would be deemed to conflict with the General Plan and the 2021-2029 Housing Element. As discussed in response to comment O15-18 and in General Response 3, the Checklist does not mandate that all new projects achieve 300 jobs per acre. Please refer to responses to comments O15-18 and O15-19, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Climate Action Plan Checklist apply to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.

O5b-4 The Checklist does not mandate that all new projects achieve 300 jobs per acre. Please refer to responses to comments O15-18 and O15-19, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist apply to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.

O5b-5 As discussed in response to comment O15-18 and in General Response 3, the Checklist does not mandate that all new projects achieve 300 jobs per acre. Please refer to responses to comments O15-18 and O15-19, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist apply to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.

O5b-6 to O5b-7 The Revised Draft 2045 CAP is consistent with the County's General Plan and its Housing Element, as it is a policy document that support development allowed under the General Plan and supports the General Plan's guiding principal to provide the foundation for a strong and diverse economy. In fact, one of the Project's objectives encourages sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP. The remainder of the comments relate to the Revised Draft 2045 CAP and do not raise significant environmental issues related to the Recirculated Draft PEIR, such that no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O5b-8 Performance objectives represent guideposts for the successful implementation of each measure and the Revised Draft 2045 CAP as a whole. However, they are not specific mandates. This explanation is provided at the beginning of Appendix E of the Revised Draft 2045 CAP. As the Revised Draft 2045 CAP is implemented and adapted over time, many of the performance objectives may change. Measure E5 was

not quantified for GHG emission reductions for the target years. However, implementation of all measures contributes to the 2045 aspirational goal of carbon neutrality. As indicated in supporting Actions 5.1 through 5.4, use of recycled water is required only where the recycled water is available indicating a prioritization of recycled water use because increasing the use of alternative water sources reduces the demand for water sources with higher energy and carbon intensities. Implementation of Measure E5 does not preclude inclusion of viable future technologies that meet GHG reduction goals in future updates to the Revised Draft 2045 CAP. Should future technologies such as desalinization meet GHG emission reduction goals, they can be considered in the next 2045 CAP update.

- O5b-9 Actions 5.1 through 5.4 are the supporting actions for Measure E5. They state that recycled water should be required where recycled water is available. As technologies improve over time, recycled water may be more widely available and should be prioritized over the use of imported water because increasing the use of alternative water sources reduces the demand for water sources with higher energy and carbon intensities. The County is developing strategies to expand recycled water supply and treat concentrates, a byproduct of the advanced water treatment of wastewater. Additional strategies related to recycled water are under development through the Draft County Water Plan: <https://lacountywaterplan.org>.

The performance goals of Measure E5 are to increase the use of alternative water sources such that 25 percent of Unincorporated Los Angeles County demand is met by recycled water, graywater, or potable reuse by 2030, 50 percent by 2035, and 90 percent by 2045. The comment does not provide specific evidence as to why this measure is legally or technically infeasible and the examples given do not support the claim that these goals are legally or technically infeasible such that a specific response cannot be provided. However, see Response O2-5, explaining that all dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems would meet regulatory standards for nitrate concentrations in septic system effluent.

- O5b-10 See Responses O5b-8 and O5b-9. The commentor argues that the Revised Draft 2045 CAP violates housing laws by disapproving new housing not supplied by 90% recycled water. This is an incorrect assessment since the performance objectives are *Countywide goals*, not regulations applied to individual development projects. They are guideposts for assessing the overall performance of measures. As discussed in General Response 3, the Checklist does not mandate that all new projects ensure that 90 percent of their water demand is met by alternative water sources or that 80% of agricultural irrigation uses be supplied exclusively by local water sources. Draft 2045 CAP Measure E5 includes a *Countywide* performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. Checklist item #21, *TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture*, is a

voluntary Tier 2 item that encourages projects to implement water reuse strategies on-site through certain design elements such as using reclaimed water for outdoor uses and installing residential graywater systems. A project that could not meet this metric could still use the Checklist to streamline its GHG impact evaluation under CEQA. Please refer to General Response 3, which addresses how the Revised Draft 2045 CAP and Checklist applies to development projects.

Further, the Housing Element notes that sustainable development needs to be incorporated into housing. The reliability of imported water to serve local development is subject to global climatic changes, water restrictions, and annual snow and precipitation levels. As variability in water availability from imported sources increases, reliability decreases. To manage existing and future water supplies, the County coordinates with state agencies and local water districts to operate a complex system that conserves, manages, and efficiently utilizes existing water resources. One such management technique that will be employed is the expansion and reuse of recycled water. The County agrees that housing and jobs-producing uses cannot be built without adequate water supplies. However, a dominant reliance on imported water that is becoming less reliable makes housing vulnerable. Expanding recycled water opportunities and use increases local water resiliency. As such, recycled water should be used where it is feasible.

- O5b-11 See Response O5b-10. In response to the comment's concerns regarding legal risks and challenges to future projects, these concerns are speculative. While potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. The comment raising potential legal challenges does not raise environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).
- O5b-12 The Revised Draft 2045 CAP acknowledges that technological progress contributing to GHG emission reductions may be made in the future. The County expects that new technologies developed over the next 25 years, along with evolving state regulations and financial incentives, will further reduce emissions. The County will continually monitor the state of these technologies and will update the Revised Draft 2045 CAP every five years to adjust policies and programs to take advantage of these advancements (Revised Draft 2045 CAP, p. ES-7.) At the time of drafting, the Revised Draft 2045 CAP addresses current and reasonably foreseeable technologies.
- O5b-13 In response to the comment's general concern that Revised Draft 2045 CAP measures rely upon state and federal actions outside the County's jurisdiction, the County disagrees. Please see responses to individual comments below for detailed discussion addressing concerns raised regarding specific measures raised in subsequent comments. Responding to the comment's discussion of the Revised Draft 2045 CAP strategies, measures and actions, climate action is complex and touches upon the interconnected nature of both our built and natural environment. This is reflected in

the Revised Draft 2045 CAP. The Revised Draft 2045 CAP lays out the reduction strategies, measures, and actions for County implementation within Chapter 3. The Revised Draft 2045 CAP provides definitions for *strategies* (overall sector-level goals of the Revised Draft 2045 CAP that aim for overarching goals within each emissions sector), *measures* (focused, sub-sector-specific programs and goals that include performance standards that are designed to be quantified for GHG emission reductions), and *actions* (specific policies, programs, or tools that will be implemented to support long-range planning). (Revised Draft 2045 CAP, p. 1-2.) The strategies, measures and actions are for the County to implement, and do not create “compliance obligations” for private development projects.

The Revised Draft 2045 CAP Recirculated Draft PEIR is intended to provide CEQA compliance for the County measures and actions as described in the Revised Draft 2045 CAP; additional CEQA compliance may be required for impacts of implementing Revised Draft 2045 CAP measures and actions not analyzed in the Revised Draft 2045 CAP Recirculated Draft PEIR.

The Revised Draft 2045 CAP also includes a voluntary consistency checklist for applicants who chose to streamline CEQA GHG analyses for their projects. (This checklist was proposed to be mandatory for all discretionary projects in the Revised Draft 2045 CAP, but in response to public comments, it has been made voluntary in the proposed Final 2045 CAP.) The Checklist in Appendix F represents the requirements a discretionary project must implement should such a project elect to streamline their project-specific CEQA GHG impact analysis. Please refer to General Response 3 for further discussion of the use of the Checklist.

- O5b-14 The framework for the Revised Draft 2045 CAP consists of a hierarchy of strategies, measures, and actions. Each prior level serves as an umbrella for the next level of related items. Actions which are specific policies, activities, or tools are intended to be implemented in a coordinated manner to make meaningful progress toward the associated measure and strategy. For example, “Complete enrollment of the community in the Clean Power Alliance’s (CPA’s) 100% Green Power option or Southern California Edison’s (SCE’s) Green Rate option” is an action (i.e., Action ES2.2 associated with Measure ES2 and Strategy 1). (Recirculated Draft PEIR, p. 2-13.) The Revised Draft 2045 CAP Recirculated Draft PEIR is intended to provide CEQA compliance for the County measures and actions as described in the Revised Draft 2045 CAP. For additional discussion, please see General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist. The over 90 actions comprehensively address the major GHG emissions sectors, reflects the broad reach of GHG emissions found in the unincorporated County, and guides the County’s climate action to toward carbon neutrality. They describe how the 25 measures will be implemented. Actions show how the County will achieve the measures.

- O5b-15 See General Response 5, which addresses quantification, estimated costs, and sources of funding for the Revised Draft 2045 CAP measures. Regarding the ability to achieve equivalent reductions using alternative measures in place of the Checklist requirements, please see General Response 3.
- O5b-16 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that voluntarily wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis under CEQA.
- O5b-17 The County acknowledges BizFed's comment regarding the County's jurisdictional control over the implementation of the Revised Draft 2045 CAP's top 5 core measures (i.e., those that represent the bulk of reductions toward the County's GHG emission targets) and concurs that Measure W1 (Institutionalize Sustainable Waste Systems and Practices) falls within the jurisdictional control of the County, and that the County does not have *direct* control over the remaining four measures (T6, ES2, E1, and T8); however, the County does have considerable control or influence over those measures, as explained in the responses to comments O5b-18, O5b-19, O5b-20, and O5b-21 below.
- O5b-18 Regarding the comment regarding the County's ability to implement Revised Draft 2045 CAP Measure T6: "Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales," the County concurs that its most direct role in implementing this measure is through its vehicle purchasing decisions and in mandating ZEV-charging infrastructure. The County also concurs that the County cannot ban the sale or use of non-ZEVs and recognizes that only state or federal law can mandate such a requirement. The relevant performance goal for Measure T6 (increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to 68 percent by 2030 and 100 percent by 2035) is based on CARB's Advanced Clean Cars II regulation, which calls for 100 percent of in-state sales of new passenger cars and trucks to be zero-emission by 2035 and directs CARB to develop new regulations to achieve that goal.¹² The commentor conflates this Countywide performance goal with a Revised Draft 2045 CAP mandate, which is not the case. The performance goal represents a reasonable target for ZEV sales based on the Advanced Clean Cars II regulation and is supported by the County's goal to install 37,000 new public and private shared electric vehicle charging stations (EVCS) by 2030, and 74,000 by 2035. The County agrees with the commentor that the reductions counted under Measure T6 could occur with or without implementation of the Revised Draft 2045 CAP; however, these reductions are not accounted for in the Revised Draft 2045 CAP's Adjusted

¹² California Air Resources Board, 2023. Advanced Clean Cars II Regulations: All New Passenger Vehicles Sold in California to be Zero Emissions by 2035. <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii>. Accessed July 2023.

BAU forecast that considers the impact of California’s Advanced Clean Cars Regulations and Pavley Vehicle Efficiency Standards (as explained on p. B-9 of the Revised Draft 2045 CAP), nor are they accounted for in any other CAP measure. Thus, it is appropriate to account for these ZEV-related reductions in Measure T6, which includes performance goals for public and private shared EVCS installation.

O5b-19 Regarding the comment regarding the County’s ability to implement Measure ES2: “Procure Zero-Carbon Electricity,” the County agrees with the commentor that the County cannot mandate that every single member of the community purchase zero carbon electricity through Clean Power Alliance’s (CPA’s) Green Power rate option (100 percent Renewables), SCE’s Green Rate option, or other available 100 percent zero carbon electricity service by 2030. However, the County has already implemented this measure: since October 2022, all customers in unincorporated Los Angeles County are automatically enrolled in CPA’s 100 percent renewable energy option and all residents and businesses in unincorporated Los Angeles County have been receiving 100 percent renewable energy—wind, solar, geothermal—from CPA (Revised Draft 2045 CAP, p. 3-17). The modeled 96 percent participation rate (4 percent opt-out rate), which represents the performance goal for this measure, is based on data supplied by the CPA to the County.¹³

O5b-20 The commentor is correct that Revised Draft 2045 CAP Measure E1 includes performance goals to transition increasing percentages of existing Countywide buildings to all-electric buildings by 2030, 2035, and 2045 (e.g., 80 percent of the residential building stock and 60 percent of the nonresidential building stock by 2045).

The commentor is correct that in *California Restaurant Association v. City of Berkeley*, No. 21-16278, 2023 WL 2962921 (Apr. 17, 2023) (hereafter, *CRA*), the Ninth Circuit Court of Appeals found the City of Berkeley’s ordinance prohibiting on natural gas infrastructure in new buildings was preempted by the federal Energy Policy and Conservation Act (EPCA). The Ninth Circuit’s decision is binding authority for all cities in the Ninth Circuit. The City of Berkeley has since petitioned the Ninth Circuit for an “en banc” rehearing of the case, which may result in a different outcome. The Biden Administration filed an Amicus Brief in support of the City of Berkeley’s ordinance, stating that the panel’s opinion is flawed by wrongly interpreted the preemption provision of EPCA.^{14,15}

¹³ Clean Power Alliance. 2021. *Member Status Report: Los Angeles County*. July 28, 2021.

¹⁴ City of Berkeley, 2023. Appeal from the United States District Court For the Northern District of California. Defendant-Appellee City Of Berkeley’s Petition For Rehearing En Banc. May 31. <https://newspack-berkeleyside-cityside.s3.amazonaws.com/wp-content/uploads/2023/06/9th-Cir.-No.-21-16278-City-of-Berkeley-Petition-for-Rehearing-En-Banc-FILE-STAMPED-1-2.pdf>. Accessed July 2023.

¹⁵ U.S. Department of Energy, 2023. Brief For The United States As Amicus Curiae In Support Of Petition For Rehearing. June 12. <https://newspack-berkeleyside-cityside.s3.amazonaws.com/wp-content/uploads/2023/06/biden-amicus-in-berkeley-gas-ban-en-banc.pdf>. Accessed June 2023.

However, the commenter is incorrect that this ruling means that implementing 2045 CAP Measure E1 is beyond the County’s jurisdiction.

The CRA decision is narrow and only addressed a single type of approach to building electrification: a non-building code prohibition on gas infrastructure in new construction (Berkeley’s ordinance leveraged “police powers” to amend the City’s Health and Safety Code). The CRA decision did not address other approaches used by local governments such as air quality standards that regulate air pollutant emissions from appliances, reach codes that encourage all-electric construction (for example, the California Green Building Standards Code—Part 11, Title 24, California Code of Regulations), and policies that require reductions in GHG emissions or air pollution from new construction that provide for flexibility for achieving such requirements. Further, although EPCA preempts many state and local energy conservation standards for appliances, the law also contains a statutory exemption to EPCA preemption for state and local building codes. (41 U.S.C., § 6297.) Specifically, building code requirements are not preempted if they meet seven conditions, which was not addressed in the CRA decision. Given these considerations, the comment’s conclusion that *all* state and local regulations on natural gas are fully preempted by EPCA is speculative.

Building performance standards (BPS), such as air emission standards for buildings similar to the state of New York’s Local Law 97 would not implicate the CRA decision.¹⁶ Performance standards such as this are anticipated to achieve similar GHG reduction results as building electrification without restricting fuel type.

However, out of an abundance of caution, to address this comment and to provide further clarity regarding the Revised Draft 2045 CAP’s goals for building decarbonization, the County has revised sections of the Draft 2045 CAP in the following ways, as shown in the examples below:

E1: ~~Transition~~ Decarbonize Existing Buildings to All-Electric: *As the carbon intensity of grid-supplied energy decreases, decarbonization of the electrical grid must be combined with building ~~electrification~~ decarbonization, shifting the energy load from fossil ~~natural gas~~ fuels to ~~cleaner~~ carbon-free sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to ~~electrify~~ decarbonize applicable existing buildings. A primary alternative to fossil natural gas is renewable electricity supplied by CPA. Biomethane is another preferred alternative to fossil natural gas; however, existing opportunities for widespread use of biomethane are currently limited. The use of other zero-emission fuel sources for buildings ~~should~~ will also be considered (Revised Draft 2045 CAP, Chapter 3, p. 3-47)*

¹⁶ City of New York, 2023. Local Law 97. Available at <https://www.nyc.gov/site/sustainablebuildings/1197/local-law-97.page>. Accessed July 2023.

***E1.1**—Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require zero-GHG emission appliances ~~electric water and space heating~~. Require buildings to retrofit natural gas water and space heating to zero-GHG emission ~~electric~~ water and space heating at the point of sale. (Revised Draft 2045 CAP, Chapter 3, p. 3-47.)*

***E2: ~~Standardize All Electric~~ Decarbonize New Development**: This measure aims to ~~electrify~~ decarbonize all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. (Revised Draft 2045 CAP, Chapter 3, p. 3-50.)*

***E2.1**—Adopt an ordinance requiring all applicable new buildings to be ~~fully electric with no natural gas hookups~~ zero-GHG emission. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. (Revised Draft 2045 CAP, Chapter 3, p. 3-50.)*

15. TIER ~~2+~~: Decarbonize Existing Buildings.

This action applies only to projects that include a retrofit, remodel, or redesign of an existing building. If the proposed project does not include a retrofit, remodel, or redesign, select “Not Applicable” in the Project Consistency column. The project must incorporate the following design elements:

- A) ~~Achieve zero GHG emissions for on-site energy use~~ All space heating and water heating must be electric.*
- B) ~~With the exception of restaurants, all cooking appliances must be electric.~~*
- C) ~~For restaurants, use electric cooking appliances to the maximum extent feasible.~~*
- DB) Comply with all applicable Building Performance Standards.²*
- EC) Comply with all building carbon intensity limits.³*
- FD) If the project is a major renovation, achieve ZNE and/or comply with the City’s ZNE ordinance.⁴ (Revised Draft 2045 CAP, Appendix F, p. F-25.)*

16. TIER ~~2+~~: Decarbonize New Buildings.

For projects under construction before 2030, the project must achieve zero GHG emissions for on-site energy use ~~be fully electric with no natural gas infrastructure or appliances, and/or comply with as specified in the County’s building decarbonization ordinance~~ all electric buildings ordinance, unless the project meets specific exemptions identified in the ordinance.⁵

For projects under construction after 2030, the project must be zero-net-energy and achieve zero GHG emissions for on-site energy use ~~fully electric with no natural gas infrastructure or appliances,~~ and/or comply with as specified in the County's ZNE ordinance, unless the project meets specific exemptions identified in the ordinance.⁶ (Revised Draft 2045 CAP, Appendix F, p. F-25.)

These revisions accomplish several things. First, the all-electric requirement of Measures E1 and E2 are changed to zero GHG emissions requirements. Measure E1 and E2 now focus on building decarbonization, not electrification. Building owners can decarbonize their buildings using a variety of means, including by using renewable natural gas/biomethane and other renewable fuels. As such, the goals of these measures would not be preempted by EPCA pursuant to the *CRA* decision because they do not require specific energy source types. Second, the Checklist is revised to make zero GHG buildings voluntary Tier 2 measures, instead of mandatory Tier 1 measures, at least until such time that the County adopts a building decarbonization ordinance or building performance standards. The use of zero GHG appliances, zero GHG buildings, or all-electric buildings can now be used as alternative GHG reduction measures. As such, the Revised Draft 2045 CAP Measures E1 and E2 are not inconsistent with the *CRA* holding and are not beyond the County's jurisdiction to implement. These revisions do not result in changes to environmental impact analyses or conclusions presented in the Recirculated Draft PEIR, and therefore do not constitute significant new information that would trigger recirculation under CEQA Guidelines section 15088.5.

O5b-21 In response to the comment regarding the County's ability to implement Measure T8: "Accelerate Freight Decarbonization," the performance objectives for Measure T8 include increasing the fleetwide percentage of medium- and heavy-duty vehicles in unincorporated LA County that are ZEVs to 40 percent by 2030, 60 percent by 2035, and 90 percent by 2045. To achieve these goals, the Revised Draft 2045 CAP includes five implementing actions, including T8.2, which would create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure and T8.4, which would streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. The comment is correct that the County cannot directly mandate all existing businesses to replace their medium- and heavy-duty vehicles with ZEVs, but it can implement actions which facilitate this transition. This is the Revised Draft 2045 CAP's approach.

The commenter also states that there is pending state and federal litigation over the extent to which the state can mandate heavy-duty ZEV trucks. However, the commenter does not cite litigation or provide any references to support this statement such that a specific response cannot be provided. However, on July 6, 2023, CARB announced a Clean Truck Partnership with truck manufacturers and Engine Manufacturers Association that advances the development of ZEVs for the commercial trucking industry. The Clean Truck Partnership commits the truck manufacturers to meeting CARB's zero-emission and criteria pollutant regulations in

the state regardless of any attempts by other entities to challenge California's authority.

CARB and EPA have both approved the Advanced Clean Trucks regulation, which requires manufacturers to sell an increasing percentage of zero emission heavy-duty trucks into the market starting in Model Year (MY) 2024 and establishes a clear timeline for 100 percent zero emission truck sales across Class 2b/3, 4-8 Vocational and Class 7/8 Tractor categories.¹⁷ CARB is also in the rulemaking process for the Advanced Clean Fleets regulation, which includes several requirements including that manufacturers may sell only zero-emission medium- and heavy-duty vehicles starting in 2036, all drayage trucks entering seaports and intermodal railyards would be required to be zero-emission by 2035, and high-priority and federal fleets must aggressively transition their truck fleets to zero-emission vehicles starting in 2024.¹⁸

- O5b-22 See General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program.
- O5b-23 See General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program, and explains that to be a valid offsite project, a project must not already be required by law or regulation, County building performance standard, or reach code requirement. Such a project would either accelerate measures, actions, and/or programs that are already identified in the Revised Draft 2045 CAP by providing additional funding to that program or would provide additional GHG reductions beyond those of the Revised Draft 2045 CAP measures and actions.
- O5b-24 See General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program. In addition, see General Response 4, which addresses concerns regarding the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist.
- O5b-25 See General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program.
- O5b-26 The comment is correct that CARB, in the 2022 Scoping Plan, supports the use of non-local offsite GHG reduction measures, such as voluntary GHG offset credits, for projects that need further GHG reductions after adoption of all feasible local, off-site mitigation options.¹⁹ The Revised Draft 2045 CAP does not prohibit projects from using GHG offset credits to mitigate their GHG impacts pursuant to CEQA's

¹⁷ California Air Resources Board, 2021. FINAL REGULATION ORDER: Advanced Clean Trucks Regulation <https://ww2.arb.ca.gov/sites/default/files/2023-06/ACT-1963.pdf>. Accessed July 2023.

¹⁸ California Air Resources Board, 2023. Advanced Clean Fleets Regulation Summary. <https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-summary>. Accessed July 2023.

¹⁹ California Air Resources Board. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in June 2023.

requirements and CARB’s recommendations. This approach may be used by any project applicant that chooses not to streamline but rather conduct a project-level GHG impact analysis pursuant to CEQA. However, if a project applicant elects to streamline environmental review of their project’s GHG impacts using the Revised Draft 2045 CAP’s PEIR pursuant to CEQA Guidelines section 15183.5(b), the project applicant must use the Checklist, and the Checklist does not permit the use of voluntary GHG offset credits. This is because the use of voluntary GHG offset credits would not contribute toward the Revised Draft 2045 CAP’s GHG emission reduction targets, which apply to direct, in-county GHG emissions. See General Response 4 for additional discussion, which addresses concerns regarding the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist.

Also see General Response 6, which addresses the Checklist’s Offsite GHG Reduction Program Framework and the use of offsite programs in the Checklist.

- O5b-27 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. See also General Response 4, which addresses the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist. The County disagrees with the comment that the Revised Draft 2045 CAP undermines CARB’s resolution to endorse net zero GHG project outcomes similar to those that have already been approved (e.g., Newhall). The Revised Draft 2045 CAP does not preclude a project from using GHG offsets to demonstrate net zero emissions (or carbon neutrality) or to attain any other CEQA significance threshold. A project can choose to conduct its own CEQA review of GHG impacts and may determine such impacts would be less than significant based on substantial evidence and valid CEQA mitigation, which (as previous projects have demonstrated) may include the use of voluntary GHG offset credits.
- O5b-28 The Revised Draft 2045 CAP would not result in housing projects that are in full compliance with the Housing Element and in every existing GHG mandate to be in “violation” of the General Plan. The Revised Draft 2045 CAP has been revised to remove Measure ES5.3 (Revised Draft 2045 CAP, p. 3-25.) For projects consistent with the General Plan, use of the Checklist is now voluntary. All new development projects requiring a General Plan Amendment must prepare their own GHG impact analysis under CEQA. Please see General Response 3 for additional discussion.
- O5b-29 The Revised Draft 2045 CAP aligns with CARB’s 2022 Scoping Plan’s encouragement that local CAPs support state goals while recognizing each region’s distinct sources and systems. (CARB 2022 Scoping Plan, Appendix D, p. 14.) The Revised Draft 2045 CAP is a plan to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state’s GHG reduction targets and related legislative actions, as explained starting on page 2-9 through 2-12 of the Revised Draft 2045 CAP and page 2-6 of the Recirculated Draft PEIR. See also General Response 2, which addresses the relationship between the Revised Draft 2045

CAP and the General Plan. The County has reviewed CARB’s Scoping Plan (cited in footnote 12 of the comment letter) and has drafted Revised Draft 2045 CAP Appendix H, *2022 Scoping Plan Recommendations Consistency*, which provides a comprehensive review of all project attributes listed in the 2022 Scoping Plan.

- O5b-30 The Revised Draft 2045 CAP’s measures are not in conflict with other County plans, policies, and projects and the commenter does not state which County-approved plans, policies and projects are in conflict with the Revised Draft 2045 CAP such that a specific response is not possible.

Regarding the comment’s issues related to the General Plan and future amendments, the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan amendment together with proposed revisions to the Air Quality Element. As such, a specific future project’s General Plan consistency will be determined by comparing such future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP. The Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state’s GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.) The Revised Draft 2045 CAP recognizes that future amendments to Revised Draft 2045 CAP measures may be needed to address future federal and state regulations. (Revised Draft 2045 CAP, p. 1-7.) Amendments to the Revised Draft 2045 CAP would represent a change to the County’s General Plan implementation program and would be a discretionary action subject to CEQA compliance.

For further discussion regarding the relationship between the Revised Draft 2045 CAP and the County’s General Plan, please refer to General Responses 2 and 3.

- O5b-31 In response to the comment’s concerns regarding future lawsuits, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. This comment does not raise significant environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O5b-32 The comment incorrectly asserts that a project’s failure to comply with all Revised Draft 2045 CAP requirements would be deemed to conflict with an environmental component of the General Plan. As stated above, since the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan, future project General Plan consistency would be determined by comparing such project with the policies in the Air Quality Element goals and policies rather than with the

detailed implementation programs identified in the Revised Draft 2045 CAP. Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can use to streamline their GHG impact analysis with the Revised Draft 2045 CAP pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Please see General Response 3 for further discussion regarding the process for project applicants.

The comment raises the issues of new County obligations and litigation risks under CEQA. It is true the Revised Draft 2045 CAP would create new County obligations—which include specific County policies, programs, or tools—necessary to achieve the emissions reduction targets consistent with AB 1279 and the 2022 Scoping Plan. The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan amendment together with proposed revisions to the Air Quality Element. For further discussion regarding how the Revised Draft 2045 CAP relates to the General Plan, please refer to General Response 2.

As stated above, projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate compliance with the Checklist and would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Such projects can demonstrate CEQA compliance in the most appropriate way tailored to the project, which may not necessitate a full EIR. As such, project applicants may make use of what the comment describes as “less costly, less time-consuming, and less litigious CEQA compliance pathways.” While potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged.

- O5b-33 Regarding the comment’s concern regarding incorporation of CAP measures in future projects, the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan. As such, General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP. The Revised Draft 2045 CAP is an implementation program for County GHG emission reduction strategies, measures, and actions and use of this program is limited. A subcomponent of the Revised Draft 2045 CAP implementation program is the Checklist, Appendix F, which the County will utilize to determine the consistency of future projects that wish to streamline their GHG impact analysis with the Revised Draft 2045 CAP pursuant to CEQA Guidelines sections 15064(h)(3),

15064.4 and 15183.5(b). If a project is consistent with the General Plan, the project would be eligible for CEQA streamlining of its project-level GHG analysis. (Recirculated Draft PEIR, p. 2-40.) The Checklist will be used *only* for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Please see General Response 3 for further discussion regarding the process for project applicants.

Regarding the comment regarding CEQA and General Plan compliance lawsuits, the Revised Draft 2045 CAP has been revised to clarify that General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP. It is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged, for example, by challenges to “infeasibility” findings.

- O5b-34 In response to the comment’s concern regarding incorporation of CAP measures in future projects, for a discussion on future project’s consistency with the Revised Draft 2045 CAP, please refer to Comment O5b-33 and General Response 3 for further discussion regarding the process for future project applicants.

In response to the comment regarding CEQA and General Plan compliance lawsuits, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged.

- O5b-35 In response to the comment’s issues of long-term compliance obligations and future amendments to the Revised Draft 2045 CAP, the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan. The Revised Draft 2045 CAP project will amend the *Los Angeles County General Plan 2035* to update goals and policies of the Air Quality Element and replace the existing implementation strategy of the Air Quality Element, known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP)*. The Revised Draft 2045 CAP builds on previous climate action work from the 2020 CCAP, adopted in October 2015 as a subcomponent of the Air Quality Element of the *Los Angeles County General Plan 2035* and includes new emissions reduction targets consistent with AB 1279 and the 2022 Scoping Plan. Future amendments to the Revised Draft 2045 CAP would represent a change to the County’s General Plan implementation program and would be a discretionary action subject to CEQA compliance. If the Revised Draft 2045 CAP is amended in the future, the need for and feasibility of additional mitigation measures would be determined at that time, consistent with CEQA requirements. For further discussion on the Revised Draft 2045

CAP's relationship to the General Plan and how the Revised Draft 2045 CAP applies to development projects, please refer to General Responses 2 and 3.

- O5b-36 The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan Amendment together with proposed revisions to the Air Quality Element. As such, future projects' General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP.

Regarding the comment's concern regarding San Diego County's CAP and related litigation, the facts regarding the Revised Draft 2045 CAP are significantly different from those surrounding the County of San Diego's CAP. As such, the holdings in *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467 ("*Golden Door*") do not directly apply to the Revised Draft 2045 CAP here. In *Golden Door*, the court found the County of San Diego's CAP was inadequate because it improperly relied on an ineffective supplemental EIR mitigation measure to eliminate net GHG emissions from general plan amendments not included in the Revised Draft 2045 CAP emissions inventory. The court determined this *Golden Door* mitigation measure was invalid in that its emissions offsets provisions, which included international offsets, were not enforceable and were improperly deferred. Unlike the County of San Diego's CAP, the County's Draft 2045 CAP does not include GHG offsets as a quantified measure for achieving the County's GHG reduction targets (see Appendix B, Emissions Forecasting and Reduction Methods) and the Recirculated Draft PEIR does not include an offset mitigation measure to eliminate GHG emissions. The use of GHG offsets occurring outside of County boundaries would not contribute toward the Revised Draft 2045 CAP's reduction targets, which would only result from actual and direct GHG emissions reductions that occur within County boundaries. The Revised Draft 2045 CAP has been revised to remove Measure ES5.3 (Revised Draft 2045 CAP, p. 3-25) such that all new development projects requiring a General Plan Amendment must prepare project-specific GHG impact analyses as required by CEQA. However, for projects intending to use the Revised Draft 2045 CAP CEQA Streamlining Checklist to streamline CEQA require of their GHG impacts, the use of GHG offsets is not an option because, as explained above, the use of voluntary GHG offset credits would not contribute toward the Revised Draft 2045 CAP GHG emission reduction targets. Please see General Response 4 for additional discussion.

While potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. These comments raising potential legal challenges do not raise significant environmental

issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

O5b-37 The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan amendment together with proposed revisions to the Air Quality Element. As such, General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP. Please refer to Response to Comment O5b-36 for more detailed discussion regarding the County of San Diego’s Climate Action Plan, related litigation, and potential for similar challenges to the Revised Draft 2045 CAP.

O5b-38 The County notes the comment’s examples of other jurisdictions’ actions in adopting their own climate action plans. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP.

The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan amendment together with proposed revisions to the Air Quality Element. The Revised Draft 2045 CAP is a policy document that would support development allowed under the General Plan. In addition to the proposed Revised Draft 2045 CAP, the proposed project evaluated in the Recirculated Draft PEIR includes proposed revisions to the General Plan’s Air Quality Element. The revisions to the General Plan’s Air Quality Element are set forth in Table 2-1, *Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element*, and Table 2-2, *Proposed Updates to the Los Angeles County General Plan 2035 Implementation Program*, in Chapter 2, *Project Description*. The Revised Draft 2045 CAP is consistent with these revisions and helps implement them. As such, the Revised Draft 2045 CAP operates in alignment with and supports other General Plan elements, as well as other policy priorities, plans and obligations. Please refer to General Response 2 for more discussion regarding the Revised Draft 2045 CAP’s relationship to the County’s General Plan.

O5b-39 The Revised Draft 2045 CAP was drafted to include measures that are technically and legally feasible, and to quantify the effectiveness of Tier 1 Checklist measures. The comment does not identify which measures it believes are infeasible, such that a specific response cannot be provided. For a discussion of the legal feasibility and quantification of 2045 CAP measures and actions, please refer to General Response 3 and General Response 4, which also address the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist. The comment does not identify specific “lawful and feasible climate

compliance mandates” that the commenter wishes the County to include in the Revised Draft 2045 CAP, so a specific response to this comment cannot be provided. Nevertheless, the County reiterates that the Revised Draft 2045 CAP is a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state’s GHG reduction targets and related legislative actions, including AB 1279 and the 2022 Scoping Plan. (Recirculated Draft PEIR, p. 2-8.) The Revised Draft 2045 CAP builds on previous climate action work from the 2020 CCAP, adopted in October 2015 as a subcomponent of the Air Quality Element of the *Los Angeles County General Plan 2035* and includes new emissions reduction targets consistent with AB 1279 and the 2022 Scoping Plan.

Regarding the comment’s statement regarding an obligation to approve an aspirational CAP or adopt a CAP into the General Plan, the Revised Draft 2045 CAP is an implementation program of the Air Quality Element of the County’s General Plan. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP. Please refer to General Response 2 for more discussion regarding the Revised Draft 2045 CAP’s relationship to the County’s General Plan.

The comment’s allegation that the Revised Draft 2045 CAP would result in litigation challenging infrastructure, housing, job creation, and other projects is speculative. While potential litigation challenging future projects is always a possibility in California, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. These comments raising potential legal challenges do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O5b-40 Regarding the comment’s concern regarding the Revised Draft 2045 CAP’s adoption into the General Plan, the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan amendment together with proposed revisions to the Air Quality Element. However, the Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state’s GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.) Future amendments to the Revised Draft 2045 CAP would represent a change to the County’s General Plan implementation program and would be a discretionary action subject to CEQA compliance. For further discussion on the Revised Draft 2045 CAP’s

relationship to the General Plan and how the Revised Draft 2045 CAP applies to development projects, please refer to General Responses 2 and 3.

While potential litigation challenging potential future amendments to the Revised Draft 2045 CAP is a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future amendments. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O5b-41 In response to the comment’s point about changing the Revised Draft 2045 CAP to an aspirational policy document, the County has discretion to determine the most appropriate approach for the contents and use of the Revised Draft 2045 CAP. The Revised Draft 2045 CAP is an implementation program of the Air Quality Element of the County’s General Plan and would be adopted by General Plan amendment together with proposed revisions to the Air Quality Element. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP.

The Revised Draft 2045 CAP includes feasible GHG reduction measures within the County’s ability to implement. The Revised Draft 2045 CAP’s measures and actions support the County’s goals, including ones related to economic development, housing, and infrastructure: general goals and policies relevant to the Revised Draft 2045 CAP include those related to infill development (Goal LU 4), vibrant, livable and healthy communities that contain a mix of community-serving uses (Goal LU 5), and land use patterns and community infrastructure that promote health and wellness for all neighborhoods (Goal LU 10). Please refer to General Response 4 for further discussion regarding the feasibility of the Revised Draft 2045 CAP reduction measures and actions and the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist.

The comment’s concern with an increase in cost, time, or litigation risks associated with the Revised Draft 2045 CAP are speculative and does not raise significant environmental issues related to the Recirculated Draft PEIR, such that no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O5b-42 The comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

- O5b-43 to O5b-44 The County acknowledges the commenter’s shared vision in equitable and lasting climate measures.

- O5b-45 The Recirculated Draft PEIR adequately quantifies GHG reductions associated with implementation of the Revised Draft 2045 CAP. See General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.
- O5b-46 See General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.
- O5b-47 The Revised Draft 2045 CAP Recirculated Draft PEIR is intended to provide CEQA compliance for the County measures and actions as described in the Revised Draft 2045 CAP. The Recirculated Draft PEIR is a program EIR that evaluates the general environmental impacts of planned activities that would implement the Revised Draft 2045 CAP as comprehensively as possible, but it does not examine the specific potential impacts of individual, future projects. Later activities facilitating Revised Draft 2045 CAP measures and actions will be examined in light of this programmatic EIR to determine whether additional environmental review is needed and may be required. (Recirculated Draft PEIR, p. 1-3.) See General Response 3, which addresses future County-initiated ordinances or plans implementing the Revised Draft 2045 CAP measures and actions that have not yet been developed to achieve the County’s GHG reduction targets. Also see General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.
- O5b-48 See Response to Comment O5b-47 and General Response 3, which addresses future ordinances or plans implementing the Revised Draft 2045 CAP strategies, measures and actions that have not yet been developed to achieve the County’s GHG reduction targets. Also see General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.
- O5b-49 The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan amendment together with proposed revisions to the Air Quality Element. The Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state’s GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.) Similar to General Plan elements, the Revised Draft 2045 CAP is not obligated to quantify or substantiate every single GHG reduction strategy, measure, and action needed to achieve its overall policy goals. As discussed in General Response 5, CEQA does not obligate lead agencies to quantify every single measure and action within a CAP to allow for future streamlining. CEQA only requires that CAPs identify measures that can achieve the CAP’s targets and that CAPs should “specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.” (CEQA Guidelines, § 15183.5(b)(1)(D).) The Revised Draft 2045 CAP does this by

quantifying GHG emission reductions associated with 18 different measures, which cumulatively would allow the County to meet the GHG reduction targets identified in the Revised Draft 2045 CAP, and by including project-specific requirements in the Checklist.

See Response to Comment O5b-47 and General Response 3, which addresses future ordinances or plans implementing the Revised Draft 2045 CAP measures and actions that have not yet been developed to achieve the County’s GHG reduction targets. Also see General Response 5, which addresses quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

- O5b-50 The commenter conflates the mitigation measures contained within the Recirculated Draft PEIR with the programmatic Revised Draft 2045 CAP’s strategies, measures, and actions necessary to achieve Countywide GHG reduction targets for 2030, 2035, and 2045. (Recirculated Draft PEIR, p. 2-8.) The former (mitigation measures contained within the Recirculated Draft PEIR) must meet CEQA Guidelines section 15126.4(a) standards for mitigation measures, which requires mitigation measures be feasible, not deferred, and fully enforceable. All Recirculated Draft PEIR mitigation measures meet these requirements, and the commenter does not challenge this. The latter (programmatic Revised Draft 2045 CAP strategies, measures, and actions) are not required by CEQA to achieve the same CEQA standards for mitigation measures, contrary to the commenter’s claim.

As discussed in General Response 5, CEQA does not obligate lead agencies to quantify every single measure and action within a CAP to allow for future streamlining pursuant to CEQA Guidelines section 15064. (See CEQA Guidelines, § 15183.5(b).) CEQA only requires that CAPs identify measures that can achieve the CAP’s targets and that CAPs should “specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level” (CEQA Guidelines, § 15183.5(b)(1)(D).) The Revised Draft 2045 CAP does this by quantifying GHG emission reductions associated with 18 different measures, which cumulatively would allow the County to meet the GHG reduction targets identified in the Revised Draft 2045 CAP, and by including project-specific requirements in the Checklist.

- O5b-51 Please see response to comments Ob-49 and Ob-50 above. See General Response 3, which addresses future ordinances or plans implementing the Revised Draft 2045 CAP measures and actions that have not yet been developed to achieve the County’s GHG reduction targets. Also see General Response 5, which addresses quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.
- O5b-52 The County understands these concerns regarding alternative GHG reduction measures and has added a new subsection in Revised Draft 2045 CAP Appendix F in

Section F.2 under Step 4 titled, “Guidance for Quantifying GHG Reductions from Alternative Measures” to help project applicants choose this pathway. This new section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative project emissions reduction measure must achieve. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail. The addition of this subsection does not constitute significant new information that would trigger recirculation of the Recirculated Draft PEIR under CEQA Guidelines section 15088.5. Rather, it serves to clarify and amplify the content of the Recirculated Draft PEIR.

Also see General Response 3, which addresses use of the Checklist and discusses the use of alternative project emissions reduction measures, as well as General Response 5, which addresses quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O5b-53 The County understands these concerns regarding alternative GHG reduction measures and has added a new subsection in Revised Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, “Guidance for Quantifying GHG Reductions from Alternative Measures” to help project applicants choose this pathway. This new section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative project emissions reduction measure must achieve. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail. The addition of this subsection does not constitute significant new information that would trigger recirculation of the Recirculated Draft PEIR under CEQA Guidelines section 15088.5. Rather, it serves to clarify and amplify the content of the Recirculated Draft PEIR.

Also see General Response 3, which addresses use of the Checklist and discusses the use of alternative project emissions reduction measures, as well as General Response 5, which addresses quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O5b-54 The County understands these concerns regarding alternative GHG reduction measures and has added a new subsection in Revised Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, “Guidance for Quantifying GHG Reductions from Alternative Measures” to help project applicants choose this pathway. This new section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative project emissions reduction measure must achieve. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail. The addition of this subsection does not constitute significant new information that would trigger recirculation of the Recirculated Draft PEIR under

CEQA Guidelines section 15088.5. Rather, it serves to clarify and amplify the content of the Recirculated Draft PEIR.

See General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and the use of alternative project emissions reduction measures. As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064, and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis.

Also see General Response 5, which addresses quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O5b-55 The Recirculated Draft PEIR has adequately evaluated the GHG emissions reductions associated with the Revised Draft 2045 CAP. Please see response to comments Ob-47, Ob-49, and Ob-50 above. See General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and addresses future ordinances or plans implementing the Revised Draft 2045 CAP measures and actions that have not yet been developed to achieve the County's GHG reduction targets. Also see General Response 5, which addresses quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O5b-56 Recirculation is not required for the reasons explained in response to comments Ob-47 through Ob-55 above. See General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and addresses future ordinances or plans implementing the Revised Draft 2045 CAP measures and actions that have not yet been developed to achieve the County's GHG reduction targets. Projects need not comply with such regulations and ordinances until they have been developed and adopted by the County. Therefore, in these instances, projects using the Checklist must only comply with currently adopted ordinances and requirements at the time of project approval. Also see General Response 5, which addresses quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O5b-57 The Recirculated Draft PEIR adequately assesses GHG impacts associated with implementation of the Revised Draft 2045 CAP strategies, measures, and actions. See General Response 3, which addresses concerns regarding alternative compliance pathways in the CEQA Compliance Checklist. Also see General Response 6, which addresses the Checklist's Offsite GHG Reduction Program Framework and the use of offsite programs in the Checklist.

O5b-58 to O5b-60 Section F.4 of the Checklist describes the Offsite Program Framework, including key concepts and principles that are consistent with CARB guidance in

Appendix D of the 2022 Scoping Plan. As written on page 30 of Appendix D, CARB states that “[i]f implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the state recommends that the lead agency next explore options to fund or implement *local*, off-site direct GHG reduction strategies.”²⁰ (See Revised Draft 2045 CAP Appendix F, p. F-24.)

As discussed in General Response 6, the Revised Draft 2045 CAP does not prohibit projects from using GHG offset credits to mitigate their GHG impacts pursuant to CEQA’s requirements and CARB’s recommendations. This approach may be used by any project applicant elects to conduct a project-level GHG impact analysis pursuant to CEQA. However, if a project applicant elects to streamline environmental review of their project’s GHG impacts using the Revised Draft 2045 CAP’s PEIR pursuant to CEQA Guidelines section 15183.5(b), the project applicant must use the Checklist, and the Checklist does not permit the use of voluntary GHG offset credits. This is because the use of voluntary GHG offset credits would not contribute toward the Revised Draft 2045 CAP’s GHG emission reduction targets, which apply to direct, in-county GHG emissions.

Regarding the comment’s concerns about potential costs of the Offsite Program, the Revised Draft 2045 CAP presents a *framework* for the Offsite GHG Reduction Program and does not represent the program itself. As stated on page F-35, the actual program will be developed after the Revised Draft 2045 CAP is adopted. Given that the program itself has not been developed, it would be speculative to estimate the implementation costs of such a program at this point. Further, the Offsite GHG Reduction Program itself is not a Revised Draft 2045 CAP measure that is quantified for GHG reductions and it is not relied upon to achieve the Revised Draft 2045 CAP’s GHG emission reduction targets. Use of the Offsite GHG Reduction Program is not mandatory for project applicants wishing to streamline environmental review of their project’s GHG impacts using the Revised Draft 2045 CAP’s PEIR pursuant to CEQA Guidelines section 15183.5(b).

See General Response 6 for further discussion of the proposed Offsite GHG Emissions Reduction Program.

- O5b-61 Regarding the comment’s concerns that the Revised Draft 2045 CAP does not demonstrate the feasibility and cost-effectiveness of the offsite reduction program, in particular the example projects listed in Section F.4 of the CEQA Compliance Checklist, the Revised Draft 2045 CAP presents a *framework* for the Offsite GHG Reduction Program, listing example offsite projects that could potentially be included (as on page F-36) and does not represent the program itself. As stated on page F-35, the actual program will be developed after the Revised Draft 2045 CAP is adopted.

²⁰ Ibid., emphasis added.

See also General Response 6, which addresses the comment's concerns regarding the proposed Offsite GHG Emissions Reduction Program.

O5b-62 Regarding the feasibility of energy storage and microgrids as projects which could be used under the Offsite GHG Emissions Reduction Program, this is an example provided for illustrative purposes only. Because the Checklist presents a *framework* for the Offsite GHG Reduction Program and does not represent the program itself, it is not possible or appropriate to demonstrate the feasibility and cost effectiveness of such example projects. Further, the Offsite GHG Reduction Program itself is not a Revised Draft 2045 CAP measure that is quantified for GHG reductions and it is not relied upon to achieve the Revised Draft 2045 CAP's GHG emission reduction targets. Therefore, the County has no obligation to demonstrate the feasibility and costs associated with potential future hypothetical offsite project types.

O5b-63 Regarding the feasibility of truck and bus electrification programs as projects which could be used under the Offsite GHG Emissions Reduction Program, this is an example provided for illustrative purposes only. The Checklist includes a Tier 1 streamlining requirement (#9) that projects which include goods movement facilities and/or warehouses must incorporate freight decarbonization technologies and infrastructure, such as installing EVCSs at all new warehouse loading docks. The example truck and bus electrification program listed as a potential offsite project would be intended for a wider variety of projects that cannot achieve net-zero GHG emissions or are unable to comply with all required CEQA streamlining requirements. Further, such programs would only be allowed if they are not already required by law or regulation, County building performance standards, or reach code requirements. Revised Draft 2045 CAP Appendix F has been revised to clarify this condition.

Because the Checklist presents a *framework* for the Offsite GHG Reduction Program and does not represent the program itself, it is not possible nor appropriate to demonstrate the feasibility and cost effectiveness of such example projects. Further, the Offsite GHG Reduction Program itself is not a Revised Draft 2045 CAP measure that is quantified for GHG reductions and it is not relied upon to achieve the Revised Draft 2045 CAP's GHG emission reduction targets. Therefore, the County has no obligation to demonstrate the feasibility and costs associated with potential future hypothetical offsite project types.

O5b-64 Regarding the feasibility of providing renewable hydrogen fueling stations for nearby truck fleets as projects which could be used under the Offsite GHG Emissions Reduction Program, this is an example provided for illustrative purposes only. The Checklist includes a Tier 1 streamlining requirement (#9) that projects which include goods movement facilities and/or warehouses must incorporate freight decarbonization technologies and infrastructure, such as installing alternative fueling infrastructure like EVCSs, green hydrogen fueling stations, and/or biomethane fueling stations. The example hydrogen fuel program listed as a potential offsite project would be intended for a wider variety of projects that cannot achieve net-zero GHG

emissions or are unable to comply with all required CEQA streamlining requirements. Further, such programs would only be allowed if they are not already required by law or regulation, County building performance standards, or reach code requirements. Revised Draft 2045 CAP Appendix F has been revised to clarify this condition.

Regarding the comment that hydrogen fueling stations would be costly for project applicants to implement, the County recognizes this possibility. The comment is correct that current costs for hydrogen fueling infrastructure is high on a dollar-per-ton GHG reduction basis. As such, it may not be financially feasible for every project to use hydrogen fueling as a viable offsite reduction project for compliance with the Checklist. However, the cost effectiveness and feasibility of such projects is likely to change in the future. Further, there is no requirement for projects electing to use the Checklist for CEQA streamlining to incorporate hydrogen fueling infrastructure; this is merely an example of the type of project that could be considered a valid offsite reduction project, should the County develop the Offsite GHG Emissions Reduction Program in the future.

Additionally, because the Checklist presents a *framework* for the Offsite GHG Reduction Program and does not represent the program itself, it is not possible nor appropriate to demonstrate the feasibility and cost effectiveness of such example projects. Further, the Offsite GHG Reduction Program itself is not a Revised Draft 2045 CAP measure that is quantified for GHG reductions and it is not relied upon to achieve the Revised Draft 2045 CAP's GHG emission reduction targets. Therefore, the County has no obligation to demonstrate the feasibility and costs associated with potential future hypothetical offsite project types.

- O5b-65 Regarding the concern that requiring offsite reduction projects within LA County and prohibiting other forms of offset credits creates unnecessary limitations for projects and LA County to effectively achieve GHG reductions to address global climate change, please see General Response 4 and General Response 6 for explanation and technical justification regarding the Offsite GHG Reduction Program Framework's requirement that offsite GHG reduction projects be located within the jurisdictional boundaries of the County.
- O5b-66 Regarding the concerns about the cost of implementing GHG reduction programs within Los Angeles County, the commenter provides no evidence to support this claim or any examples of the types of measures that would impose high costs and for what reasons, such that a specific response cannot be provided. The County has not yet developed the Offsite GHG Reduction Program, as explained in Appendix F. It would therefore be speculative to estimate the cost, timing, scale, or other specific characteristics of the Offsite GHG Reduction Program.

As discussed in General Response 6, the Revised Draft 2045 CAP does not prohibit projects from using GHG offset credits to mitigate their GHG impacts pursuant to CEQA's requirements and CARB's recommendations. This approach may be used by

any project applicant elects to conduct a project-level GHG impact analysis pursuant to CEQA. However, if a project applicant elects to streamline environmental review of their project's GHG impacts using the Revised Draft 2045 CAP's PEIR pursuant to CEQA Guidelines section 15183.5(b), the project applicant must use the Checklist, and the Checklist does not permit the use of voluntary GHG offset credits. This is because the use of voluntary GHG offset credits would not contribute toward the Revised Draft 2045 CAP's GHG emission reduction targets, which apply to direct, in-county GHG emissions.

For more discussion regarding GHG offsets and the proposed framework for the Offsite GHG Emissions Reduction Program, please see General Response 4 and General Response 6.

- O5b-67 Regarding the concern that the Revised Draft 2045 CAP does not demonstrate the feasibility and cost-effectiveness of the offsite reduction program, the Revised Draft 2045 CAP presents a *framework* for the Offsite GHG Reduction Program, listing example offsite projects that could potentially be included (as on page F-36) and does not represent the program itself. Further, the Offsite GHG Reduction Program itself is not a Revised Draft 2045 CAP measure that is quantified for GHG reductions and it is not relied upon to achieve the Revised Draft 2045 CAP's GHG emission reduction targets. Therefore, the County has no obligation to demonstrate the feasibility and costs associated with potential future hypothetical offsite project types. See General Response 6 for additional discussion.
- O5b-68 Regarding the concern that creating non-local offsite reductions through voluntary market credit registries is a multi-year process, please note that the Offsite GHG Reduction Program Framework as described in Section F.4 of the CEQA Compliance Checklist does not specify the use of voluntary market credit registries and specifically states on page F-35 that "projects that generate carbon offset credits to be traded on a voluntary market registry are not permitted to be used in this program." It is the County's intent to make such offsite programs easier and faster to develop than traditional voluntary market carbon offsets developed using registry protocols. The County acknowledges the commenter's suggestion that a program for creating GHG reductions through an offsite reduction program should be designed to be feasible with respect to the time required to develop and verify reduction projects.
- O5b-69 Contrary to the comment's claim, the Recirculated Draft PEIR thoroughly and properly analyzes the Revised Draft 2045 CAP's environmental impacts on population and housing in Recirculated Draft PEIR Chapter 3.14, *Population and Housing*, consistent with CEQA's requirements. The comment does not identify any specific deficiencies in the Recirculated Draft PEIR's analysis of impacts on population and housing. The comment states that the Revised Draft 2045 CAP would conflict with the project objective to provide a diverse range of housing, but this is not a project objective, and the commenter does not specifically identify how the Revised Draft 2045 CAP conflicts with any project objective.

The Revised Draft 2045 CAP does not “impair” types of housing projects by mandating new regulatory requirements on such projects. The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and is not a regulatory document but is rather a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state’s GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.) As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project’s GHG impact analysis.

- O5b-70 Regarding the link between the CEQA streamlining requirements in the Checklist and a project’s environmental impact, as described in Recirculated Draft PEIR Chapter 2, Project Description (p. 2-42), a project’s incremental contribution to a cumulative impact may not be cumulatively considerable if the project would comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area in which the project is proposed. (CEQA Guidelines, §§ 15064(h)(3); 15064.4(b).) The County has developed the Checklist to assist with determining the consistency of projects with the Revised Draft 2045 CAP for purposes of CEQA streamlining. The Checklist ensures that future projects would achieve their proportion of emissions reductions consistent with the assumptions of the Revised Draft 2045 CAP. The Checklist provides a mechanism for projects to specifically identify “those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project” per CEQA Guidelines section 15183.5(b)(2).

Consequently, the Recirculated Draft PEIR and Revised Draft 2045 CAP do what the comment requests: 1) demonstrate a link between the CEQA streamlining requirements included in the Checklist and a project’s GHG impact, and 2) establish a project’s “fair share” contribution to address the cumulative GHG impact.

See General Response 3, which comprehensively addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects.

- O5b-71 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a

voluntary option that project applicants can use to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis need not demonstrate compliance with the Checklist and would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Such projects can demonstrate CEQA compliance in the most appropriate way for the project, which may include mitigation measures tailored to the project to address significant impacts.

All Tier 1 requirements in the Checklist would result in direct and indirect GHG emission reductions for new development projects. Most of these Tier 1 requirements were quantified for GHG emission reductions at the County level. The Checklist's Tier 1 requirements are included to specifically identify "those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project" per section 15183.5(b)(2) of the CEQA Guidelines (Revised Draft 2045 CAP, Appendix F p. F-3). The comment does not include specific examples of Tier 1 Checklist requirements that are included for "policy grounds unrelated to GHG reductions," and as such the County cannot provide specific responses.

Regarding the comment about equally effective mitigation to reduce GHG emissions, the Checklist includes an Alternative Project Emissions Reduction Measure option for project applicants to use. This option allows projects that propose alternative GHG emissions reduction measures to the Tier 1 Checklist requirements or propose to include additional GHG emissions reduction measures beyond those in the Checklist, provided that the project applicant demonstrate how the alternative project measure would achieve the same or greater level of GHG emissions reductions as the Tier 1 Checklist requirement(s) that it replaces.

- O5b-72 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis need not demonstrate compliance with the Checklist and would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Such projects can demonstrate CEQA compliance in the most appropriate way for the project, which may include mitigation measures tailored to the project to address significant impacts.

Regarding the cost to new development projects opting to utilize the Checklist for streamlining purposes, the commenter provides no evidence to support the claim that

such costs would be “significant.” Regardless, CEQA does not require the financial details of a proposed project to be addressed in an EIR. (CEQA Guidelines, § 15131).

Regarding the commenter’s claim that implementing the Checklist would impose “significant... procedural hurdles” to project applicants, the commenter provides no evidence to support this claim. As discussed above, the Checklist will only be applicable for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b) and demonstrating consistency with the Checklist is no longer mandatory for new development projects.

- O5b-73 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project’s GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. This tailored, project-specific CEQA analysis would be required to include feasible mitigation measures to lessen the project’s significant environmental impacts.

The Checklist also provides an alternative compliance pathway for CEQA streamlining, as requested by the commenter. The CEQA streamlining process allows for flexibility in implementation of measures. Please refer to Section F.2, Step 4, *Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions*, for more information. Also see General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and the use of alternative project emissions reduction measures.

- O5b-74 Regarding the comment’s disagreement with the identification in Recirculated Draft PEIR Section 4.6 (p. 4-20 et seq.) of both the No Project Alternative and Alternative 3 as the environmentally superior alternative, see 2.2.1, *General Response 1: CEQA Alternatives*, for a discussion regarding the Recirculated Draft PEIR’s adequate analysis of alternatives under CEQA.

- O5b-75 CEQA requires that EIRs identify the environmentally superior alternative and discuss the facts that support that selection. (Pub. Resources Code, § 21081.5; CEQA Guidelines, § 15126.6.) The County acknowledges the commenter’s preference for the identification of Alternative 1 as the environmentally superior alternative; however, as explained in Recirculated Draft PEIR Section 4.6 (p. 4-21), Alternative 3 is considered the environmentally superior alternative for CEQA purposes. The facts offered in support of this selection are provided in Table 4-6 (p. 4-23 et seq.). Specifically, Alternative 3 would result in similar but fewer impacts than the Project on the following resource areas: aesthetics, agriculture and forestry resources,

biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, and wildfire. Alternative 3 would result in greater impacts than the Project for energy, GHG emissions, air quality, and utilities and service systems. By comparison, Alternative 1 would result in reduced impacts in only five of the resource areas relative to the Project (i.e., air quality, energy, GHG emissions, transportation, and wildfire). Alternative 1 would result in greater impacts for hazards and hazardous materials as well as utilities and service systems. Implementation of Alternative 1 would facilitate projects that include wind projects with wind turbines that could result in a safety hazard for people residing or working in the project area due to collision risk, interference with radar or other air navigation tools, and other hazards related to air navigation. Additionally, implementation of this alternative would facilitate projects that would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on the purchase of carbon offsets. Because Alternative 1 would not have the least environmental impacts among the alternatives, the County declines the suggestion to identify Alternative 1 as the environmentally superior alternative.

The comment's suggestion that the use of offsets under Alternative 1 would result in fewer projects; however, this suggestion ignores the fact stated in in Section 4.4.2, *Alternative 1: Carbon Offset Alternative* (p. 4-13), that purchasing carbon offsets would result in carbon offset *projects*. Alternative 1's carbon offset projects "could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global-warming- potential gas use with a gas that has a lower global warming potential, or implement other measures." Without more information about the number and nature of resulting carbon offset projects, there is no reasonable basis to assume resulting environmental impacts would be less than those of the Project.

O5b-76 In response to the comment's disagreement with the identification of Alternative 3 as the environmentally superior alternative, it is speculative for the analysis in the Recirculated Draft PEIR to rely on future new, less impactful technologies that have not been developed yet that may have the same or greater GHG reduction potential. Instead of relying on speculative future technologies that have yet to be developed, the Recirculated Draft PEIR relies on the best information currently available and is supported by substantial evidence. (See Recirculated Draft PEIR, p. 4-16.)

O5b-77 Identification of the environmentally superior alternative relies on the alternative's respective ability to feasibly accomplish most of the basic project objectives and to avoid or substantially lessen one or more significant impacts of the Project as proposed. Alternative 1 would result in greater environmental impacts associated with hazards and hazardous materials as well as utilities and service systems. Implementation of Alternative 1 would facilitate projects that include wind projects with wind turbines that could result in a safety hazard for people residing or working in the project area due to collision risk, interference with radar or other air navigation

tools, and other hazards related to air navigation. Additionally, implementation of this alternative would facilitate projects that would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on the purchase of carbon offsets. Alternative 1 would result in less environmental benefits to the County overall, because the reductions in air pollutant and GHG emissions could be realized elsewhere in Southern California, the State, or the Pacific Southwest and because greater environmental impacts could result from wind projects facilitated by the purchase of carbon offsets. Policy considerations impact the suitability of implementing Alternative 1, given the uncertainties with its execution, as the volatile cap and trade market makes it difficult to anticipate the cost of regulatory carbon allowances. See Recirculated Draft PEIR Section 4.6 (p. 4-21) and Table 4-6 (p. 4-23 et seq.).

O5b-78 The Recirculated Draft PEIR’s analysis of alternatives’ impacts is not cursory. CEQA Guidelines section 15126.6(d) states, “[a] matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.” Consistent with CEQA Guidelines section 15126.6(d), Recirculated Draft PEIR Table 4-6 is a matrix that provides a comparative analysis of significant environmental impacts of the Project and the Project alternatives, including whether mitigation measures identified for the Project would be required for one or more of the Project alternatives.

The commenter’s opinion that fewer projects definitively would be constructed under Alternative 1 is not supported by substantial evidence. Recirculated Draft PEIR Section 4.4.2 (p. 4-13) explains, “Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global-warming-potential gas use with a gas that has a lower global warming potential, or implement other measures. To achieve the greatest environmental co-benefits to the County, priority would be given, from highest to lowest, to offsets purchased from local projects (within Los Angeles County), regional projects (from within Southern California), projects within California, projects outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and projects elsewhere in the United States.” Alternative 1 does not limit the number or size of offset projects, and anticipates a scenario where all carbon offset projects would be developed within LA County.

The commenter incorrectly assumes that Alternative 1 would have greater impacts with respect to hazards associated with projects in an airport land use plan due to the potential for carbon offset projects to include a wind project built in an airport land use plan area. Any wind project proposed in LA County would be subject to the requirements of the Los Angeles County Renewable Energy Ordinance, which

outlines the approval process for the development and operation of wind energy systems and facilities, as well as with the applicable airport land use plan and Federal Aviation Administration requirements. Compliance with applicable independently enforceable laws would ensure that development complies with safety standards.

Regarding the suggestion that Alternative 1 would include more wind projects than the proposed Project, it is possible that it would not. As noted above, carbon offset projects could be any of a variety of projects.

- O5b-79 Regarding the comment’s concern that complying with the Checklist would be challenging for project applicants, as discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project’s GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist.

The commenter does not state specifically how the Checklist would create an “undue burden” on projects. However, as noted above, the Checklist is voluntary for new development projects, so project applicants are free to opt out of any burdens that demonstrating consistency with the Checklist might entail.

- O5b-80 As discussed in General Response 5, CEQA does not obligate lead agencies to quantify every single measure and action within a CAP to allow for future streamlining. CEQA only requires that CAPs identify measures that can achieve the CAP’s targets and that CAPs should “specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.” (CEQA Guidelines, § 15183.5(b)(1)(D).) The Revised Draft 2045 CAP complies with this CEQA provision by quantifying GHG emission reductions associated with 18 different measures, which cumulatively would allow the County to meet the GHG reduction targets identified in the Revised Draft 2045 CAP, and by including project-specific requirements in the Checklist. The Checklist’s Tier 1 requirements were quantified in the Revised Draft 2045 CAP for GHG emissions reductions needed to achieve the 2030, 2035, and 2045 emissions reductions targets. See General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions. Also see General Response 3, which addresses the Revised Draft 2045 CAP’s reliance on future ordinances or plans implementing the Revised Draft 2045 CAP measures and actions that have not yet been developed to achieve the County’s GHG reduction targets.

O5b-81 The County agrees that there are a variety of ways an individual project can avoid, reduce, or mitigate GHG emissions, and the Checklist includes an alternative project emissions reduction pathway for project applicants to use. This alternative pathway allows project applicants to propose alternative GHG emissions reduction measures to those identified in Table F-1 (the CEQA streamlining requirements). Please refer to Draft 2045 CAP Appendix F, Section F.2, Step 4, *Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions*, for more information. The Checklist also includes a framework for an Offsite GHG Reduction Program, which would allow applicants to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions, as an alternative to the Checklists CEQA streamlining requirements. Please refer to Draft 2045 CAP Appendix F, Section F.4, *Offsite GHG Reduction Program Framework*, for more information.

The idea behind the commenter's example scenario is valid: if a project can avoid or reduce all of its GHG emissions in all sectors through specific technologies in a subset of emissions sectors, such as through "comprehensive water and energy conservation and alternative technologies," then there is indeed no technical or regulatory basis to require such project to implement additional GHG reduction actions in other emissions sectors. In other words, if a project can achieve net zero GHG emissions through energy and transportation measures, then it would not be required to implement solid waste and agriculture measures. However, it may be difficult or even infeasible to achieve net zero GHG emissions with measures in only a few emissions sectors, unless the project could achieve substantial carbon removal or sequestration to counterbalance residual emissions in other sectors. The alternative project emissions reduction measure pathway allows this. Specifically, if a project can demonstrate that its water and energy measures would achieve the same or greater level of GHG emissions reductions as the Checklist streamlining requirement that it replaces, such as a requirement for another emissions sector like solid waste or transportation, then the project would not be required to implement those other requirements.

To further clarify this process, the County has added a new subsection in Revised Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, "Guidance for Quantifying GHG Reductions from Alternative Measures" to help project applicants choose this pathway. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail. The addition of this subsection does not constitute significant new information that would trigger recirculation of the Recirculated Draft PEIR under CEQA Guidelines section 15088.5. Rather, it serves to clarify and amplify the content of the Recirculated Draft PEIR.

Finally, projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. This tailored, project-specific CEQA analysis would be required to include feasible mitigation measures to lessen the project's significant environmental impacts.

Also see General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and the use of alternative project emissions reduction measures, as well as General Response 5, General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O5b-82 Please see response to comment O5b-81 above for a discussion regarding why there is flexibility in demonstrating compliance with the Revised Draft 2045 CAP. Also see General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and the use of alternative project emissions reduction measures, as well as General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O5b-83 In response to the comment's concern that complying with the Checklist would be challenging for project applicants, as discussed in General Response 3, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. This tailored, project-specific CEQA analysis would be required to identify threshold(s) of significance for GHG emissions and include feasible mitigation measures to lessen the project's significant GHG impacts.

In response to the comment's concern that the Revised Draft 2045 CAP does not provide adequate guidance on significance thresholds if a project cannot complete the Checklist, the Revised Draft 2045 CAP does not preclude a project from using any specific CEQA significance threshold. A project can undergo its own CEQA review of GHG impacts and determine such impacts would be less than significant based on substantial evidence and valid CEQA mitigation measures. The Revised Draft 2045 CAP is not a CEQA thresholds guidance document and does not attempt to provide guidance on numeric significance thresholds, but instead provides a pathway for CEQA streamlining via completion of the Checklist, pursuant to CEQA Guidelines section 15183.5(b) (Recirculated Draft PEIR, p. 2-9). Should a project be unable to comply with all Tier 1 streamlining requirements, the Checklist includes an alternative project emissions reduction pathway for project applicants to use. This alternative pathway allows project applicants to propose alternative GHG emissions reduction measures to those identified in Table F-1 (the CEQA streamlining requirements). Please refer to Draft 2045 CAP Appendix F, Section F.2, Step 4, *Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions*, for more information.

With regard to the commenter's concerns regarding CEQA litigation, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP measures and actions would be challenged. Also see General Response 2, which addresses concerns regarding third parties initiating lawsuits against the County and future project applicants.

- O5b-84 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. In addition, the County has revised the section cited by the commenter as follows:

Projects That Are Not Consistent Eligible for with the 2045 CAP CEQA Streamlining

In some cases, a project may not be able to ~~demonstrate consistency~~ comply with all of the 2045 CAP CEQA streamlining requirements. This may be because the project is inconsistent with the ~~existing land use designation of the Land Use Element and the 2021–2029 Housing Element~~ General Plan's growth projections as described in Step 1. Or a project may not be able to feasibly incorporate all ~~consistency~~ CEQA streamlining requirements as identified in Table F-1 and discussed in Step 3; such a project may further be unable to adequately identify alternative project measures to achieve a similar level of GHG reduction to ~~infeasible consistency~~ each CEQA streamlining requirements which a project cannot comply with. Such projects are not eligible to streamline environmental review of their GHG impacts using the 2045 CAP's PEIR and may be required to prepare a comprehensive project-specific analysis of GHG emissions pursuant to CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist).

As discussed above, a comprehensive project-specific analysis of GHG emissions must be prepared for any project that is found to be not consistent with the 2045 CAP through completion of Table F-1 and (if applicable) Table F-2. Such an analysis shall quantify existing and projected GHG emissions and evaluate potential impacts pursuant to the CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist). The project shall incorporate all the measures in the 2045 CAP Checklist to the extent feasible. Projects that do not implement all feasible applicable checklist measures or alternative project emissions reduction measures may have significant GHG impacts because they

~~could conflict with an applicable GHG reduction plan per CEQA Guidelines Appendix G, Section VII.~~ (Revised Draft 2045 CAP, Appendix F, p. F-15.)

Regarding the comment that the offsite program will be available to project applicants as a tool to complete the Checklist for CEQA streamlining, this would be a viable pathway in the event that a project applicant is unable to comply with all Tier 1 CEQA streamlining requirements. The commenter's assertion is correct: the offsite program represents an alternative project emission reduction measure to aid with Checklist compliance, but would only be available if a project applicant is unable to comply with all Tier 1 CEQA streamlining requirements. The County has revised the section cited by the commenter as follows:

Action ES5.4 of the 2045 CAP would establish an Offsite GHG Emissions Reduction Program (Offsite Program) for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would allow new development to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions. An Offsite GHG Emissions Reduction Program (Offsite Program) will be developed. Future projects that cannot achieve net-zero GHG emissions or are unable to comply with all required 2045 CAP Checklist items CEQA streamlining requirements would have the option to participate in the Offsite Program. The Offsite GHG Reduction Program could be used for projects that propose alternative GHG emissions reduction measures to those identified in Table F-1, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1. (Revised Draft 2045 CAP, Appendix F, p. F-34.)

Also see response to comment O5b-81 above and General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and the use of alternative project emissions reduction measures.

- O5b-85 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b) such that the Revised Draft 2045 CAP structure does not disqualify projects from demonstrating less than significant CEQA impacts absent incorporation of all Checklist items. Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. This tailored, project-specific CEQA analysis would be required to identify threshold(s) of significance for GHG emissions and include feasible mitigation measures to lessen the project's significant GHG impacts.

O5b-86 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Thus, projects may demonstrate less than significant environmental impacts by preparing a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

O5b-87 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. Thus, the Checklist measures are not an imposition, because demonstrating compliance with the CEQA streamlining requirements in the Checklist is voluntary.

To document the proposed change in use of the Checklist and to clarify the role of Checklist and what is mandatory and voluntary, the County has revised sections of the Revised Draft 2045 CAP and Recirculated Draft PEIR in the following ways, as shown in the example below:

Projects that ~~are not consistent with the 2045 CAP~~ elect not to use the 2045 CAP CEQA Streamlining Checklist for CEQA streamlining must prepare a comprehensive project-specific analysis of GHG emissions. The analysis must quantify existing and projected GHG emissions and it is strongly encouraged that the project incorporate the measures all the CEQA streamlining requirements in this 2045 CAP CEQA Streamlining Checklist to the extent feasible, as defined by CEQA² and subject to the County's discretion, although this is not required. Cumulative GHG impacts may be significant for any project that is not consistent with the 2045 CAP per the CEQA Guidelines Appendix G Environmental Checklist.³The 2045 CAP CEQA Streamlining Checklist may be updated to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or to local, state, or federal law.
(Revised Draft 2045 CAP, Appendix F, p. F-3.)

As shown in the revised language above, the requirement that all projects incorporate all Checklist requirements "to the extent feasible" independent of a project's election to use the Checklist for CEQA streamlining has been removed from the Revised Draft 2045 CAP and the Checklist entirely. As such, the comment's claim that there is no scientific basis for this requirement is now moot.

See General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist.

O5b-88 As discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. This tailored, project-specific CEQA analysis would be required to identify threshold(s) of significance for GHG emissions and include feasible mitigation measures to lessen the project's significant GHG impacts.



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Valerie Hardman
Outdoor Dimensions

May 15, 2023

Submitted via electronic mail: climate@planning.lacounty.gov

Attn: Thuy T. Hua, Supervising Regional Planner
County of Los Angeles, Department of Regional Planning
320 West Temple St., 13th Floor
Los Angeles, CA 90012

**Re: Building Industry Association of Southern California, Inc. –
Comment Letter Concerning the County’s Revised Draft 2045
Climate Action Plan**

Dear Ms. Hua:

Building Industry Association of Southern California, Inc., Los Angeles/Ventura Chapter (BIA-LAV) is a non-profit trade association of businesses and individuals in the vital homebuilding industry in the Counties of Los Angeles and Ventura. In essence, BIA-LAV’s members are those who are the most active in building the new homes and communities in which Angelenos will live. BIA-LAV and its members have long supported governmental efforts aimed at achieving sustainable development and sound environmental stewardship, and will continue to do so.

O6-1

We write today to provide comments concerning Revised Draft 2045 Climate Action Plan ("RDCAP") in response to its publication by the County of Los Angeles (the "County") regional planning staff. Last week, we were disappointed that the County’s staff declined to extend the review period for the RDCAP. It is a very complex document, spanning nearly 1000 pages and dozens of legal and scientific topics, such as agriculture, jobs, energy and water supply and reliability, economic development, housing, infrastructure, public works, transportation, and water. While we and others had been repeatedly assured by the County’s staff that the RDCAP was to be an "aspirational" plan, what has been proposed would be legally enforceable in many problematic ways, and would add hundreds of additional pages to the County’s general plan.

O6-2

We had scheduled for last Monday a meeting with the County’s staff to discuss the RDCAP. We postponed the meeting because we were and are still– with the assistance of consultants and attorneys – assessing the sweeping consequences of this proposed, massive amendment to the County's general plan and other key, already-approved policy priorities. The program environmental impact report

O6-3

(PEIR) that accompanied the RDCAP reflects even more technical and legal content, and hundreds of more pages to digest. Indeed, the PEIR's deficiencies alone are vast and overwhelming; and it does not begin to explain or analyze the many conflicts and consequences of the RDCAP vis-a-vis the already-approved general plan, community plans, area plans, and specific plans. The RDCAP plainly has staggering implications to the housing industry; but it generally lacks scientific or technical support for the regulatory burdens that it would impose on projects. Given the sheer volume of material to digest, BIA-LAV will continue to analyze the RDCAP and PEIR with an aim toward providing additional comments to the County and its decisionmakers.

O6-3
(cont.)

O6-4

O6-5

Since the passage long ago of California's Assembly Bill 32 (2006), in which the State Legislature expressed the policy goal of substantially reducing anthropogenic greenhouse gases ("GHG") emissions, our staff and members, as well as our regional and state associational counterparts, have followed and participated in regulatory initiatives intended to address climate change and GHG emissions. During that time, we have seen a wide range of regulatory proposals for GHG regulations which, if they had been imposed uncritically, would have wreaked havoc on our members and their ongoing homebuilding efforts. None of the proposals that we have seen before would so broadly and unduly impose upon and decimate the homebuilding industry as would the RDCAP as it is now presented.

O6-6

BIA-LAV appreciates that the County's staff feels obligated to propose strong measures aimed to reduce the GHG emissions and incorporate them into an updated climate action plan ("CAP"). Indeed, the urgency of the climate crisis demands action that is both smart and effective. That notwithstanding, if the RDCAP were to be adopted as proposed, it would impose an entirely unmanageable set of new regulatory burdens affecting the potential production of housing and development of communities within the County. The RDCAP should be substantially revisited, corrected and qualified, resulting in a better-reasoned and wise CAP update. Our reasoning is set forth in the discussion that follows.

O6-7

First, however, as a threshold matter, we must emphasize that both California as a whole and Los Angeles County in particular remain mired in a worsening housing crisis. In recent years, the State Legislature has acknowledged the woeful state of housing supply when enacting the following pronouncements:

O6-8

"California has a housing supply and affordability crisis of historic proportions. The consequences of failing to effectively and aggressively confront this crisis are hurting millions of Californians, robbing future generations of the chance to call California home, stifling economic opportunities for workers and businesses, worsening poverty and homelessness, and undermining the state's environmental and climate objectives."¹

"California's housing picture has reached a crisis of historic proportions despite the fact that, for decades, the Legislature has enacted numerous statutes intended to significantly increase the approval, development, and affordability of housing for all income levels"²

¹ Calif. Government Code section 65589.5(a)(2)(A).

² Calif. Government Code section 65589.5(a)(2)(J).

“While the causes of this crisis are multiple and complex, the absence of meaningful and effective policy reforms to significantly enhance the approval and supply of housing affordable to Californians of all income levels is a key factor.”³

O6-9

Notwithstanding the clear urgency of such legislative pronouncements, thus far the County has failed to adopt and implement the kinds of reasonable land use policies that are needed to foster substantially more homebuilding in the County.

To illustrate, as we noted in our previous comment letter concerning an earlier draft of proposed CAP revisions, during the eight (8) year period from 2014 through 2021, the County issued permits for the construction of only 8,854 housing units, which translates into an average issuance of only **1,107** housing permits annually during the entire eight-year period. This figure falls woefully short of the assessed need for additional housing in the County. Pursuant to state law, the County’s recent allocation of the Regional Housing Needs Assessment (“RHNA allocation”), required the County to identify and zone parcels on which to accommodate 90,052 new housing units within the eight-year period April 2021 through April 2029; and the preponderance of the RHNA allocations were imposed to meet pent-up, unmet existing demand rather than current population growth. The County’s RHNA allocation therefore equates to **11,257** housing units annually, which is greater than ten times larger than the County’s rate of actually permitting new housing during the eight (8) year period ending 2021.

O6-10

Moreover, even as our economy has recovered following the recent pandemic, the rate at which new housing has been constructed within the County’s unincorporated jurisdiction has continued to decline. The County reported in the Department of Regional Planning’s general plan and housing element annual progress report for 2022 that the County issued certificates of occupancy for only **956** housing units on unincorporated County land during all of 2022.⁴ Collectively, the constituents of the housing market are speaking loudly to the County’s policy makers, saying: Clearly, the County is not taking necessary steps to foster, incentivize, spur and approve new homebuilding – even though the County’s own housing element approval makes housing production a policy priority, and even though without solving the housing supply crisis little to no progress can be made on other key policy priorities, like homelessness, racial equity, employee retention and recruitment, and a stable tax and revenue base for the County to pay for its many legally mandated and critically important duties.

O6-11

If the RDCAP were adopted as proposed, the abysmal current level of housing production within the County will only worsen. In light of both (i) the undeniable need to build much more housing supply in the County, and (ii) the ongoing failure of the County to accommodate new housing supply, the County’s decisionmakers should reject the RDCAP’s proposed policies because they would both further delay and discourage new housing and community development, and further drive up the costs, the litigation risks and the uncertainty of trying to build housing –

O6-12

³ Calif. Government Code section 65589.5(a)(2)(B).

⁴ See *General Plan and Housing Element Annual Progress Reports CY 2022*, LEAP Reporting Table and Summary Table spreadsheets.

or pretty much anything, including without limitation public works, infrastructure, and advanced manufacturing facilities.

O6-12
(cont.)

Against this backdrop, our most fundamental and urgent concerns about the RDCAP are as follows:

- **First, the sheer number of new regulatory measures, tests and standards reflected in the RDCAP – including new limitations, prescribed implementation measures and potential mitigation impositions – exceeds 100 in total.** Given the limitations of today’s technologies, scores of these new prescriptions cannot presently and feasibly be met. Many of the prescriptions remain insufficiently defined in the RDCAP, in that they will rely on future County studies and policy pronouncements or ordinances. Because of the many uncertainties that the RDCAP leaves unaddressed, the RDCAP as proposed would impose upon projects that are presently seeking or soon will seek approval new requirements which can neither be fully fathomed nor met presently.

O6-13

Similarly, the draft PEIR prepared for the RDCAP fails to adequately analyze the alleged GHG reductions of the many proposed programs and measures. It lacks technical substantiation for the projected GHG reductions. Consequently, the RDCAP improperly takes credit for as-yet-unadopted programs and foreshadowed or promised measures that have neither been properly evaluated under CEQA nor demonstrated to be likely successful. The CAP’s “alternative” compliance pathway is not quantified; and an indicated program for off-site mitigation possibility is promised for formulation and adoption to only sometime in the future.

O6-14

Notwithstanding the above, the RDCAP states that all of its measures will, upon its adoption, immediately become part and parcel of the County’s general plan. If so, then every project that cannot meet every one of these new measures (to the extent relevant) will be rendered inconsistent with the General Plan. BIA/LAV’s members cannot imagine that the County would, in one fell swoop, add so many new benchmarks, thresholds, limitations and areas for close examination, analysis, and potential dispute and litigation to the County’s already arduous and prohibitive project approval processes. Thousands of consultants would need to be employed and become educated about such new regulatory prescriptions and tests as might apply to proposed projects, which would add tremendously to the time, expense and complexity of project reviews and approvals. Therefore, first, ***the RDCAP should be pared back very substantially to reduce the sheer number of new prescriptions, calculations and tests that it now includes; and any resulting CAP update should not be incorporated into the County’s general plan*** (as is discussed in more depth below). The County should explore instead adopting only a few, relatively plain measures concerning which there is substantial stakeholder agreement concerning their affordability, feasibility and effectiveness.

O6-15

- ***Second, many of the proposed new requirements are foreseeably impossible to meet – either across the board or in a vast number of circumstances, and the legal devastation this would cause shatters the remainder of the Board’s approved general plan, area plans, community plans, specific plans, and other approved plans and projects. The County should remove from the RDCAP all measures that cannot be***

O6-16

feasibly implemented with certainty based on technical, legal and economic factors that exist today. Even though some of the RDCAP measures establish quantitative, inflexible mandates that are effective in 2045, 2045 is barely 20 years away; and nearly every single home or mixed-use project heretofore approved by the County currently will foreseeably continue to exist in 2045. The RDCAP generally fails to consider the foreseeable interplay among existing development, fully or partially approved pending development, and further development that is yet to be proposed. When the RDCAP is considered with circumspection, many of its measures are actually illegal under current laws and regulations.

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For example, the RDCAP aims to require all projects to comply with the RDCAP’s new mandate that no more than ten percent (10%) of its water supply will come from water imported into the County. Projects approved today cannot abrogate the County's water supply agreements, create new water regulations that allow for potable use of recycled water, or pretend that cisterns can supply future apartment buildings and manufacturing facilities – especially since new projects cannot under water quality laws result in hydromodification impacts to downgradient streams and habitat areas. There is no evidence that the County can implement its housing element in compliance with RHNA law and meet this water supply mandate, nor is it clear whether – given that the mandate retroactively implicates all pre-existing water uses in the County – any new project can use any amount of stored or imported water, even as a 10% blending source. Simply put, the sources and uses of water in the County, ongoing consumption needs, and the current, foreseeable and imaginable technologies all preclude such an achievement. The BIA/LAV’s members, as the homebuilders and leaders in community development who must strive to supply new homes against a backlog of demand, know from their many required demonstrations of water supply reliability that such a tight limitation on imported water cannot be achieved at any cost in the foreseeable future.

We therefore urge the County’s staff to contact the Metropolitan Water District of Southern California (MWD), the Los Angeles Department of Water and Power (LADWP) and other water purveyors operating within the county, as well as the State Water Resources Control Board, the Los Angeles County Regional Water Quality Control Board, and the state Department of Health Services, to ascertain their understanding of how this RDCAP measure could actually be implemented in homes might be built next year and will be existing in 2045 – or allow any applicant to demonstrate reliable water supply consistent with the RDCAP’s stated tests alongside water supply assessment law and the California Environmental Quality Act (CEQA). Even the voluntary, very costly, and stringent CalGreen Tier II water standard, which most projects are unable to meet, does not prescribe such an unachievable 10% water import cap, nor does it mirror the RDCAP's anti-innovation approach of dictating only three exclusive water treatment technologies (reclaimed water, grey water, and tap-to-toilet water) which County residents and businesses would be allowed to use to meet the test.

O6-17

Similarly, the RDCAP aims to establish a new land use limitation or goal such that projects where employment will occur must aim for an employment density of 300

O6-18

employees per acre. Concerning this proposal, BIA/LAV respectfully requests first and foremost that *all construction and development activities should be expressly excluded from any such employment density requirement or analysis*. Land development and construction activities tend naturally to be logically phased; and work is undertaken serially out of necessity. Critical paths required for any given construction undertaking do not allow for different tradespersons to be piled atop all at once, such as would be required to meet or approach any arbitrary per-acre employment density goal for construction.

O6-18
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Even when looking beyond construction activities, the 300-person per acre employment density goal seems irrational as applied generally to nearly all parts of the unincorporated county. Such a goal might be sensible and achievable only a very few select parts of the largest and most mature cities (such as pre-pandemic New York City) – not in the unincorporated county areas. In well-planned “new town” areas and still maturing communities, however, meeting any such employment density target would be obviously impossible. A one-acre strip mall in which is located a dozen small businesses does not employ 300 people; nor does a modern automated factory, hybrid technology and entertainment venues, or agriculture production or processing. The RDCAP’s employment density metric appears from nowhere; and its expected GHG reduction is never quantified. It is impossible to imagine that any mixed-use projects (which are generally favored by regional planners) could ever come close to meeting such a requirement; but the RDCAP nonetheless threatens to impose it as a new General Plan mandate.

In fact, the infeasibility of the many RDCAP requirements becomes apparent when one considers the RDCAP Checklist, set forth in Appendix F (the “Checklist”). Under any level of scrutiny, the Checklist is overly prescriptive and lacks any potential feasibility in most land use contexts. Its sweeping and overly ambitious provisions fail to consider the many implementation challenges that it would create for housing projects. The RDCAP and its appendices include no meaningful technical support indicating how and when actual GHG reductions might be achieved in the prescriptive categories identified by the Checklist.

O6-19

Individual projects should not be forced into such a one-size-fits-all framework without a supporting technical basis for the approach; nor should infeasibility need to be proven for the components of such a long laundry list of requirements. For example, even if one were to assume that a given project could, factually, achieve net-zero GHGs by avoiding and reducing all of its GHG emissions through some combination design features and other measures, there is no technical or scientific consensus concerning how one might substantiate the individual or combined effects of trying to meet the standards that the Checklist contains. Moreover, forcing projects to comply with *every* element of the Checklist – or to otherwise mitigate for their failure to do so – would, at minimum, require undue heroics and excessive costs, and could effectively require projects to become “net-negative” in terms of their GHG impacts. A far better approach would be to account for the inherent differences between a wide range of projects by providing flexibility and alternative compliance pathways, while aiming for

O6-20

a more reasonable and equitable degree of betterment from projects in terms of their GHG-emissions characteristics.

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Finally concerning the Checklist and the RDCAP’s discussion about it, if a project cannot demonstrate consistency with the CAP, then the project applicant must prepare a “full” GHG analysis – presumably in an environmental impact report (EIR), even if the project would otherwise qualify for CEQA streamlining or an addendum. The RDCAP states, however, that even such a full EIR process will not excuse the project applicant from complying with each and every single Checklist measures “to the extent

O6-21

feasible.” Thus, no consideration is given when the required analysis of a project viewed as a whole demonstrates relative wisdom and expediency of not complying with a particular Checklist measure, or when an already-approved suite of GHG reduction mandates included in state or federal laws and regulations differs from the CAP prescriptions, or when a project would add no or negligible GHG emissions, or would otherwise provide quantified GHG reduction benefits. Any project for which there must be undertaken a full GHG analysis should be able to demonstrate whether it has a less than truly significant GHG impact (based upon a reasonable threshold) irrespective of the Checklist.

O6-22

We therefore urge the County to instead consider the California Air Resources Board’s (CARB) Scoping Plan approach to GHG mitigation, which should include the use of CARB-certified GHG-reduction offsets methodology and dispensation for projects that have already garnered CARB’s approval thereunder. The County should be proud of the two master planned communities located within the County which have demonstrated net-zero GHG emissions under CARB’s methodology. Instead, the RDCAP as proposed summarily rejects the approaches that CARB uses. CARB’s 2022 scoping plan and CEQA itself both recognize that there are multiple pathways by which to demonstrate consistency with California’s climate action policies. So too should the County’s CAP update recognize multiple potential pathways toward compliance – and not embed into the County’s General Plan a mindboggling suite of consultant-generated new mandates that were never before presented as mandates even within the County’s own department, let alone to other critical agency, public, business, and homebuilder stakeholders.

For example, the County submitted, and the California Department of Housing and Community Development (“HCD”) approved, a new housing element in the County’s general plan. The RDCAP makes new housing generally infeasible, for reasons mentioned above (e.g., water) and in light of the scores of other mandatory RDCAP measures. The RDCAP therefore directly undermines the potential implementation of the County’s housing element. If the County had proposed, along with its housing element, to add to the length and complexity of its housing project approval process, eviscerate CEQA streamlining for housing (and thus delayed housing approvals by multiple years), add countless thousands of dollars to the cost of producing each housing unit, and impose more than 100 new approval standards for new housing, then HCD would have rejected the housing element as a gross violation of housing and civil rights laws. It should be viewed as no less a violation of those law for the County to impose these same burdens in another section of the general plan (i.e., in a CAP update

which the County proposes to incorporate into the general plan) a scant few months later.

O6-22
(cont.)

Importantly, the County’s current CAP was upheld in recent CEQA litigation, as was project-level compliance therewith. This was owing no doubt to the relatively prudent, achievable, and clear content of the current County CAP. BIA-LAV respectfully asserts that maintaining the current CAP would be vastly more reasonable than would be adopting the RDCAP as it is proposed.

- ***Third, the RDCAP should be revised to clearly express the flexible and aspirational nature of its many provisions, and – most importantly – to expressly preempt its weaponization under the California Environmental Quality Act (CEQA). To this end, any finalized CAP update should not be made part and parcel of the County’s general plan.*** BIA/LAV is concerned that the County’s planning staff espouse the view that the RDCAP as proposed should be viewed as mainly aspirational and not so mandatory as to unduly prejudice any project approvals and development. Respectfully, based on our members’ many decades of experience in litigation related to project approvals, BIA/LAV cannot regard the RDCAP as anything less than dangerously over-prescriptive. As written, all of the RDCAP measures would indeed be mandatory – albeit subject to both (i) off-site mitigation “opportunities” and (ii) possible forgiveness based on infeasibility findings (which might be obtained only after a great expense of time, money and process). Once the RDCAP measures become effective, they would affect virtually any and all projects that will thereafter be considered.

O6-23

In California, locally adopted climate action plans legally may be wholly aspirational; or they may instead be mandatory either in part or in whole. Therefore, the County should take care to express its intentions about which elements of any updated CAP will be mandatory in order to prevent the potential and indeed foreseeable weaponization of the updated CAP through CEQA litigation. Notably, San Diego County has been subjected to rounds of litigation due to its uncritical incorporation of its supposedly aspirational climate action plan update in its general plan. As a result of such litigation, that county’s own projects, and all private projects that come before the county, can be subjected to legal challenge for the county’s failure to strictly enforce its climate action plan update.⁵

O6-24

⁵ See, e.g., “Enviro Law Group Sues San Diego for Missing Climate Goals in Mira Mesa,” Voice of San Diego, Feb. 21, 2023, found at <https://voiceofsandiego.org/2023/02/21/enviro-law-group-sues-san-diego-for-missing-climate-goals-in-mira-mesa/>; “San Diego Climate Group Sues City over Lack of Enforcement and Unidentified Funding for Its Climate Action Plan,” by Dorian Hargrove, September 14, 2022, found at <https://www.cbs8.com/article/news/local/san-diego-climate-group-sues-city-over-climate-action-plan/509-8980fa39-67e6-447b-b999-b23e969ca6d0>.

Accordingly, BIA/LAV urges the County to include a well-considered “statement of limitation of use” in any CAP update, so as to avoid any arguable claim that the plan’s components should be used as a foil under CEQA. Good examples of such statements of limitation of use exists, such as the Southern California Association of Government’s (SCAG) statement pertaining to its use of transportation analysis zone (TAZ) maps for modeling in its 2023 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and SCAG’s 2012 RTP/SCS disclaimer of CEQA implications related to its long list of potential climate action mitigation concepts.

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- ***Fourth, the County should expressly and clearly grandfather all projects that will have commenced their pursuit of development approval prior to the effective date of any climate action plan revision – so that those projects will be subject only to the County’s currently-adopted climate action plan, and not to an updated CAP.*** Some community development projects, even if they are not yet finally and completely approved, have been contemplated for years or even decades and long been reflected in the County’s general plan, local area plans, as well as in the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Community Strategy for several successive four-year cycles. BIA/LAV’s members have been actively pursuing and are at various stages of continuing to pursue and implement identified development and project approvals from the relevant agencies of the County. Importantly, these many activities have been undertaken with an aim to comply with the County’s currently adopted climate action plan.

O6-25

It would be a tremendous waste of the effort and costs already incurred, and thus unduly burdensome, to require such project applicants to revise their plans and proposals to conform to changes that might be reflected in a new climate action plan may result from the RDCAP if and to the extent it is adopted. Therefore, finalization of any updated CAP should include a clear provision grandfathering all project applications that will have been commenced prior to an express implementation date.

- ***Fifth, the most unreasonable suggestion in the RDCAP is the proposal to establish a GHG mitigation “trading” policy whereby alternative, offsite compliance can be demonstrated only by reducing GHG within the County’s limits.*** In its comments above, BIA/LAV urges the County to avoid making its many new GHG tests and hurdles binding in such a way that either onsite compliance or heroic offsite mitigation might be required as a component of project approval. Unless it is corrected before it is finalized, the RDCAP indicates a contrary result, and – even worse – indicates that project proponents should be able to mitigate GHG reduction shortcomings by seeking to reduce GHG away from the project (i.e., off-site), but only by mitigating within the county’s borders. In effect, then, the County is proposing a mitigation “trading pool” (such as that employed in “cap and trade” regimes). But rather than the trading pool being reasonably broad and deep, it is instead proposed only the size of a small pond.

O6-26

There is no legitimate reason to limit the scope of the potential GHG emissions “trading pool” to the County’s spatial limits. The anthropogenic GHG gases that contribute to climate change are emitted worldwide in broadly varying ways and amounts throughout differing societies, states and countries for reasons ranging from abject poverty and the

relative wealth or dearth of advanced technology to wanton over-consumption. If and to the extent that local project proponents in the County might be required to mitigate their projects' respective GHG emissions, they should be free to seek out the most economical, effective and efficient ways to do so. Indeed, California should be exporting the best technologies and the best and most affordable climate change policies far and wide, especially given that most other states and many nations need better direction far more than does California.⁶

O6-26
(cont.)

It will be far more difficult, taxing and costly to identify and implement offsite GHG reduction measures if one is limited to doing so only within County's spatial limits. As noted above, the RDCAP presently leaves unanswered many questions about how to quantify what levels of mitigation might be sufficient. Limiting the spatial range of potential measures available would unduly add to project costs whenever more affordable GHG-reduction potential exists outside of the County. In addition, there would likely be additional agency costs involved in administering and policing a circumscribed, county-specific trading pool which can be avoided if the County were to instead align the CAP update with the approach that CARB champions at the state level.

Specifically, CARB, which the State Legislature tasked in 2006 with the primary regulatory power to address GHG emissions, has long approved of and pointedly applauded GHG mitigation that goes beyond county borders, such as the landmark arrangements proposed, promised and, when allowed, put in place by the developers of certain large master planned communities within the County.⁷ CARB's most recent scoping plan for GHG reductions specifies that, while localized off-site mitigation offsets may be preferable, non-local offsets and credits should be available to enlarge the feasibility of mitigation.⁸ Limiting the trading pool for any off-site GHG emissions mitigation to within the County's borders would assure that the County will have the

⁶ California slightly trails only New York and Maryland in terms of having the lowest per capita GHG emissions in the nation (even though California is relatively vast); and Californians are rapidly adopting electric vehicles at a relatively fast pace, which suggests that California will soon have the lowest per capital GHG emissions in the nation. Moreover, Los Angeles, Orange, Riverside and San Bernardino counties accounted for 40 percent of the 369,364 battery-powered vehicles registered in California in 2020, suggesting that Los Angeles County residents better the state average in terms of having very low per capita GHG emission. "Southern California Continues to Dominate EV Industry," *Governing the Future of States and Localities*, April 2, 2021, found at: <https://www.governing.com/next/southern-california-continues-to-dominate-ev-industry>.

O6-27

⁷ In its 2022 Scoping Plan, CARB expressly recognized two master planned communities located within the County's jurisdiction (the Newhall Ranch and Centennial projects) as exemplary "net zero GHG" projects. See 2022 Scoping Plan, Appendix D, pp. 24-25, found at <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-action.pdf>.

O6-28

⁸ See CARB's 2022 Scoping Plan, App. D – Local Action Plans, p. 31, similarly found at: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-action.pdf>.

most expensive and the least efficient and effective GHG off-site mitigation program imaginable. Such would be inconsistent with the County’s obligation to help foster the construction of affordable housing for all of its citizens. Therefore, the County should consider adopting the CARB scoping plan’s tiered approach to mitigation, prioritizing onsite and local measures, followed by non-local measures, or should instead provide technical justification for deviating from the scoping plan’s recommended prioritization.

O6-26
(cont.)

- ***Sixth and lastly, the RDCAP would, if adopted, violate federal constitutional principles that prevent federal, state or local governments from disproportionately overburdening – as a condition of land use approval – new development and redevelopment in relation to the relative burdens that are similarly shouldered by the jurisdiction’s population as a whole.*** As noted above, BIA/LAV urges the County to reject making the many new tests and prescriptions set forth in the RDCAP mandatory. We instead urge the County to be clearly indicate the new CAP measures as aspirational or “directive” only (i.e., non-mandatory); and we ask the County to not include such measures in its general plan whereupon they might be weaponized by project opponents.

O6-29

If and to the extent that the County were to reject our requests, many of the new tests and standards reflected in the RDCAP, individually and collectively, would constitute unduly burdensome impositions and conditions of approval which would violate the so-called *Nolan/Dolan/Koontz* line of Supreme Court of the United States opinions.⁹ Taken together, these Supreme Court rulings prevent local, state and federal governments from requiring any citizen a person to give up a constitutional property right in exchange for a discretionary benefit conferred by the government – for example, where an exaction demanded has too little or no relationship to the benefit, or where the degree of the exactions that are demanded by permit conditions are not “roughly proportional” to the projected impacts of the development. This is called the doctrine of “unconstitutional conditions.”¹⁰

O6-30

⁹ The *Nollan, Dolan, and Koontz* trilogy of Supreme Court opinions consists of *Nollan v. California Coastal Comm’n*, 107 S.Ct. 3141 (1987), *Dolan v. City of Tigard*, 114 S.Ct. 2309 (1994), and – most recently – *Koontz v. St. Johns River Water Management Dist.*, 133 S.Ct. 2586 (2013).

¹⁰ In *Koontz*, the Supreme Court recapped and explained its opinions in *Nollan* and *Dolan*, and further expounded on the doctrine of unconditional conditions, when finding that a governmental agency had imposed disproportionately oppressive conditions in connection with its offer to approve a permit. application. Specifically, the Court explained the doctrine of unconstitutional conditions as it pertains to citizens’ right to apply for permission to develop one’s respective property, explaining that the doctrine vindicates the Constitution’s enumerated rights (here, the Fifth Amendment right to just compensation for the governmental taking of property). As applied in *Koontz*, the doctrine prevents the government from coercing citizens into giving up their rights; and the Court explained that *Nollan* and *Dolan* represent a special application of the doctrine applicable when owners apply for land-use permits. As the Court explained, the standards set out

Briefly, if the RDCAP were adopted as it is now proposed, it would force all permit applicants to submit to permit conditions that are vastly more imposing than, and grossly disproportionate to, any requirements that the County is willing to impose upon its existing property owners or their tenants. If and to the extent that the permit applicant can show that it is infeasible to achieve net-zero GHG emissions onsite, then the permit applicant will next be required to mitigate off-site (but only within the County) to otherwise achieve net-zero emissions. Beyond that, only if and to the extent that the applicant runs the full gamut of expensive, time-consuming and ultimately risky CEQA processes might the applicant be ultimately excused in an ad hoc and discretionary manner from any further mitigation on grounds of economic infeasibility under CEQA. The weaponization of CEQA through such a permit process would then be complete.

O6-30
(cont.)

O6-31

Essentially, the RDCAP therefore would operate to put all new development and redevelopment on a permanent fast in terms of their potential GHG emissions. It would be as if though new development and redevelopment applicants must forever undertake and maintain both a starvation diet and incessant exercise in order to eliminate all body fat; and – if and to the extent the applicant is unsuccessful in doing so – must buy equivalent gym memberships for other County citizens to compensate for any shortcomings. Such demands are tremendously disproportionate to what little – if anything – is asked of the citizenry generally in terms of their respective GHG emissions reductions.

O6-32

Although the County’s staff suggests that many aspects of it are merely “aspirational” rather than mandatory, as the RDCAP is now proposed, the only aspect of it that is truly aspirational is the hope that all of the County’s many millions of citizens will magically all become GHG-neutral by the year 2045. Apparently, the RDCAP aims to make a bit of progress toward such a county-wide aspiration by overburdening those who must apply for permission to develop or redevelop homes and property and overtaxing those who may buy, rent or build prospectively built housing. Indeed, the County seems poised to impale all land-use permit applicants with a broad sword in order to fund and make relatively small dents in the GHG emissions of the County’s other citizens, who might benefit from the off-site mitigation exactions that the RDCAP promises to impose.

Such a policy approach and its effects would be inconsistent with the pronouncements from the California Legislature which are quoted above – specifically about the need for “meaningful and effective policy reforms to significantly enhance the approval and supply of housing affordable to Californians of all income levels...” We believe that the RDCAP’s policies are also inconsistent with the spirit and letter of the doctrine of unconstitutional conditions as it was explained by the Supreme Court of the United States in *Koontz*.

in *Nollan* and *Dolan* address the danger of governmental coercion in the land-use permitting context while also accommodating the government’s legitimate need to offset the public costs of development through land use exactions. See *Koontz*, 133 S.Ct. 2594-96.

Conclusion

We commend the County for its desire to address climate change and the need to be aligned with the State's GHG emission goals. That notwithstanding, many of the RDCAP's policy directives, however well-intended they may be, promise to increase housing costs substantially, further dampen the already dismal housing production in the County, further reduce homeownership opportunities, further increase housing rental rates, and further erode the economic status of the middle class and the most vulnerable residents of the County. We respectfully urge the County to revise the RDCAP substantially in light of our comments above.

O6-33

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Valencia', with a long horizontal line extending to the right.

De'Andre Valencia, Senior VP
BIASC/ LA Ventura Chapter

2.3.2.6 Letter O6: Building Industry Association

O6-1 to O6-2 The Revised Draft 2045 CAP, released on March 15, 2023, retained the majority of the contents of the Draft 2045 CAP that was released the prior year, on April 25, 2022. The Revised Draft 2045 CAP was released with a tracked changes version to facilitate ease of review.

The Recirculated Draft PEIR listed the targeted changes to highlight the differences between the analysis contained in the Draft PEIR and the Recirculated Draft PEIR to facilitate ease of review. The Recirculated Draft PEIR describes changes to the Revised Draft 2045 CAP in Chapter 2, *Project Description*, and analyzes the Project as revised on a resource-by-resource basis throughout Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. The Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR.

Regarding the comment’s concern regarding the review period of the Recirculated Draft PEIR, CEQA presumes the adequacy of a 45-day review period for a Draft PEIR (Pub. Resources Code, § 2109(a); CEQA Guidelines, § 15105) and explains that the public review period should not be longer than 60 days except in “unusual circumstances.” There are no extenuating circumstances here and as such, the standard 45-day review period is sufficient. Additionally, during those 45 days, the County hosted seven open meeting hours advertised as lunchtime office hours, posted on the project website and distributed via email an informational video on the Project, and held meetings with responsive stakeholder groups to facilitate review and discussion. In order to provide stakeholders additional time to review and understand the Revised Draft 2045 CAP and Recirculated Draft PEIR, and since changes to the Recirculated Draft PEIR were predicated on changes to the Revised Draft 2045 CAP, the Revised Draft 2045 CAP was released prior to the Recirculated Draft PEIR to offer additional review time to read the changes driving the analysis in the Recirculated Draft PEIR. For these reasons, the County believes that the 60-day public review period provided for the Revised Draft 2045 CAP and the 45-day public review period provided for the Recirculated Draft PEIR were sufficient to allow informed public comment.

O6-3 In response to the comment’s concern related to alleged deficiencies of the Recirculated Draft PEIR regarding conflicts and consequences of the Revised Draft 2045 CAP associated with the County’s already-approved General Plan, community plans, area plans, and specific plans, the comment does not allege any specific conflicts. Section 3.12, *Land Use and Planning*, of the Recirculated Draft PEIR evaluates land use and planning issues to determine whether the Revised Draft 2045 CAP would result in a significant impact related to a physical division of an established community or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. As described in Section 3.12.2.3, the Revised Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045

CAP. The Recirculated Draft PEIR concluded that projects facilitated by the Revised Draft 2045 CAP would have less-than-significant impacts related to a conflicting with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.

- O6-4 The Housing Element serves as a policy guide to address the comprehensive housing needs of the County. Its focus is to ensure decent, safe, sanitary, and affordable housing for current and future residents. It now also focuses on equitable development to counter historical residential segregation and environmental injustice. The Housing Element sets forth implementing actions that encourage the private sector to build and improve housing. To that end, a climate action plan was identified as a program of the Housing Element. The Revised Draft 2045 CAP includes a voluntary streamlined procedure for environmental clearance for individual housing projects, thereby reducing the time and expense needed for individual environmental clearances. Qualifying projects will be able to rely on the Revised Draft 2045 CAP for their GHG emissions impact analysis under CEQA. Housing projects have been able to successfully integrate climate action as identified in the CARB’s 2022 Scoping Plan.
- O6-5 In response to the comment’s suggestion that the Revised Draft 2045 CAP and Recirculated Draft PEIR contain a large amount of “material to digest,” the length of the Revised Draft 2045 CAP and its Recirculated Draft PEIR is standard and the comment provides no evidence to support its suggestion. See Response O6-1 through O6-2.
- O6-6 The Revised Draft 2045 CAP aligns closely with CARB’s 2022 Scoping Plan. A comparison of the alignment can be found in Appendix H of the Revised Draft 2045 CAP. In response to the comment’s concern that the Revised Draft 2045 CAP would have an effect on the homebuilding industry, please see General Response 3 for further discussion regarding what is required of discretionary projects related to Draft 2045 CAP consistency such that the Revised Draft 2045 CAP would not “impose upon and decimate” the homebuilding industry.
- O6-7 The Recirculated Draft PEIR does not impose an unmanageable set of new regulatory burdens affecting the production of housing within the County. The framework set out in the Revised Draft 2045 CAP contains actions to be implemented by both the County and development projects. The Checklist found in Appendix F identifies required versus voluntary actions for projects that elect to streamline their GHG emissions impact analysis under CEQA. Please see General Response 3 for further discussion. The County rejects the comment’s suggestion that the Recirculated Draft PEIR be revised and addresses additional, specific concerns the comment letter raises in the responses below.
- O6-8 to O6-9 Regarding the comment’s concern about the state’s housing crisis and County policies that foster homebuilding, the Revised Draft 2045 CAP is a policy document that would support development allowed under the General Plan. No changes to

General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP.

The Revised Draft 2045 CAP focuses on the importance of housing availability and seeks to balance encouragement for increased housing supply with GHG reductions. The Revised Draft 2045 CAP prioritizes strategies that include providing specific incentives and subsidies for affordable housing developments. For example, Measure T1 seeks to increase housing opportunities that are affordable and near high-quality transit areas to reduce VMT. Action T1.2 directs the County to develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. As such, the Revised Draft 2045 CAP implements measures and actions that would help foster substantially more homebuilding in the County. The Housing Element identifies 61 programs the County will set forth to implement actions that encourage the private sector to build and improve housing; ensure that government policies do not serve as unnecessary constraints to housing production, preservation and improvement; and ensure that government policies counter the historical patterns of segregation and environmental injustice for communities of color. One of the contributing programs that implements Measure T1 is the Housing Element Rezoning Program which increases densities near high-quality transit areas, thus eliminating the need for developers to pursue General Plan amendments to increase densities.

Please also see Response to comment O6-4.

O6-10 The County notes the comment’s discussion of the County’s Regional Housing Needs Assessment; however, this comment does not raise environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

O6-11 Regarding the comment’s concern regarding the rate of new housing development within the County, the County disagrees that it is not taking necessary steps to foster, incentivize, spur and approve new housing projects. Please see Response to Comment O6-8 for further discussion regarding the Revised Draft 2045 CAP’s measures and actions that support increased housing production. The commenter cites the number of homes issued certificates of occupancy but does not provide information on actual contributing factors for delays between the time entitlements were issued and certificates of occupancy were obtained. It would be speculative to assume that all delays were related to government policies. Homes receiving certificates of occupancy in 2022 would likely have started the building process before or during the pandemic and could have been affected by various delays associated with the pandemic outside of the County’s control. As the County works to implement the Housing Element’s programs, additional policy changes such as the Rezoning Program will be made to support housing production. This comment does not raise environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

O6-12 The comment provides no evidence to support its claims that if the Revised Draft 2045 CAP were adopted, housing production within the County would worsen, the Revised Draft 2045 CAP's measures would delay and discourage housing development, increase development costs, and raise risk of litigation. In response to the comment's concern regarding new housing, please see Response to Comment O6-8. Regarding the comment's concerns about increased costs to housing production, under CEQA, economic effects of a project onto themselves are not treated as significant effects on the environment; rather, the focus of CEQA is on physical changes in the environment. These comments do not address the adequacy or accuracy of the Recirculated Draft PEIR or any environmental effects of the proposed Project and no further response is required pursuant to CEQA Guidelines section 15088(a).

Regarding risk of litigation, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. See General Response 2, which addresses concerns regarding third parties initiating lawsuits against the County and future project applicants.

O6-13 See General Response 5, which addresses the quantification of GHG emission reductions for Revised Draft 2045 CAP strategies, measures, and actions. Also refer to General Response 3, which discusses that demonstrating consistency with the Checklist is a voluntary option for project applicants to streamline specific projects under CEQA.

O6-14 See General Response 3, which addresses the alternative GHG reduction measure pathway in the Checklist. Also see General Response 5, which addresses the quantification of GHG emission reductions for Revised Draft 2045 CAP strategies, measures, and actions. Also see General Response 6, which addresses the Checklist's Offsite GHG Reduction Program Framework and the use of offsite programs in the Checklist.

O6-15 Regarding the comment's statement that the Checklist does not provide a quantitative pathway for alternative project emissions reduction measures (Step 4 and Table F.2 of the Checklist), the County understands these concerns and has added a new subsection in Revised Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, "Guidance for Quantifying GHG Reductions from Alternative Measures" to help project applicants that choose this pathway. This new section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative project emissions reduction measure must achieve. For further discussion regarding alternative project emissions reduction measures, please refer to General Response 3.

Regarding the comment's point regarding off-site mitigation, the Revised Draft 2045 CAP Action ES5.4 would establish an Offsite GHG Reduction Program (Offsite Program) for new development to use as a GHG reduction or mitigation pathway by allowing applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. The Offsite Program will be developed separately after the Revised Draft 2045 CAP is adopted and the Final EIR is certified. Section F.4 of Appendix F includes a framework for the Offsite Program, which includes the required location for offsite projects; six specific standards to ensure that the GHG reductions produced by offsite projects are real, permanent, quantifiable, verifiable, enforceable, and additional; as well as the proposed process that requires certain actions from project applicants, such as the requirement to provide to the County a quantification of reductions supported with substantial evidence showing that the offsite project proposed achieves the amount of GHG emissions reductions required. For further discussion regarding the Offsite Program, please refer to General Response 6.

Regarding the comment's concern with General Plan consistency, the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan Amendment together with proposed revisions to the Air Quality Element. General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies, rather than by comparing a project to the implementation programs identified in the Revised Draft 2045 CAP. A subcomponent of the Revised Draft 2045 CAP implementation program is the Checklist, Appendix F, which the County will utilize to determine the consistency of future projects that wish to streamline their GHG impact analysis with the Revised Draft 2045 CAP pursuant to CEQA Guidelines sections 15064(h)(3), 15064(h)(3), 15064.4 and 15183.5(b). If a project is consistent with the General Plan and can demonstrate consistency with the Revised Draft 2045 CAP by completing the Checklist, the project would be considered consistent with the Revised Draft 2045 CAP and eligible for CEQA streamlining of its project-level GHG analysis. (Recirculated Draft PEIR, p. 2-40.)

However, demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis do not need to demonstrate consistency with the Checklist. Instead, such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

The comment's concerns with increased time, expense, and complexity of project approvals are speculative and does not raise significant environmental issues related to the Recirculated Draft PEIR, such that no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nevertheless, the County reiterates that consistency with the Revised Draft 2045 CAP CEQA Streamlining Checklist is no longer a requirement for new development projects, but is rather a voluntary option

that project applicants can utilize to streamline their project’s GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist but rather, would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

The County disagrees that the Revised Draft 2045 CAP should be substantially “pared back” because such action would inhibit the County’s ability to implement reduction strategies, measures, and actions necessary to achieve Countywide GHG reduction targets consistent with state and local goals, including AB 1279, the 2022 Scoping Plan, the *We Are Still In* Declaration to align with the 2016 Paris Climate Agreement, and the *OurCounty: Los Angeles Countywide Sustainability Plan*. Regarding the comment’s concern about incorporation into the General Plan, the County has chosen to prepare and utilize the Revised Draft 2045 CAP as an implementation program for the Air Quality Element of the General Plan and adopt the Revised Draft 2045 CAP by General Plan Amendment. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP.

- O6-16 The commenter provides no evidence that the Revised Draft 2045 CAP’s requirements for new development would be impossible or infeasible to implement. The commenter is also incorrect that all projects must meet a requirement that no more than 10 percent of a project’s water supply will come from water imported into the County. Revised Draft 2045 CAP Measure E5 includes a performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. For projects that wish to streamline their GHG impacts evaluation under CEQA, the Checklist requires nothing regarding water source types. Checklist item #21, *TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture*, is a voluntary Tier 2 item that encourages projects to implement water reuse strategies on-site through certain design elements such as using reclaimed water for outdoor uses and installing residential graywater systems. A project that could not meet this metric could still use the Checklist to streamline its GHG impact evaluation under CEQA, because compliance with Tier 2 measures is strongly encouraged rather than mandatory.

Please see General Response 3, which addresses requirements for projects electing to streamline their CEQA GHG impact analysis as identified in the Checklist. Also see General Response 2, which addresses concerns regarding third parties initiating lawsuits against the County and future project applicants.

O6-17 As stated above in Response to Comment O6-16, the comment is incorrect that all projects must meet a requirement that no more than 10 percent of a project's water supply will come from water imported into the County; rather, this is a Countywide performance objective. Performance objectives represent guideposts for the successful implementation of each measure and the Revised Draft 2045 CAP as a whole. However, the performance objectives are not specific mandates for the County or for individual projects. This explanation is provided at the beginning of Appendix E of the Revised Draft 2045 CAP. Because the Revised Draft 2045 CAP is implemented and adapted over time, many of the performance objectives may change. Measure E5 was not quantified for GHG emission reductions for the target years. As indicated in supporting Actions 5.1 through 5.4, the use of recycled water is required only where the recycled water is available, indicating a priority for using recycled water because increasing the use of alternative water sources (like recycled water) reduces the demand for water sources with higher energy and carbon intensities (like imported water). Implementation of Measure E5 does not preclude inclusion of viable future technologies that meet GHG reduction goals in future updates to the Revised Draft 2045 CAP. Should future technologies such as desalinization meet GHG emission reduction goals, they can be considered in the next CAP update. As technologies improve over time, recycled water may be more widely available and should be prioritized over the use of imported water because increasing the use of alternative water sources reduces the demand for water sources with higher energy and carbon intensities.

Regarding the comment's statement about project applicants demonstrating reliable water supply, projects that do not intend to streamline their GHG impact analysis need not complete the Checklist and would instead be required to prepare a project-specific impact analysis under CEQA, which allows applicants to demonstrate reliable water supply consistent with water supply assessment law and CEQA. Please see General Response 3 for further discussion regarding the process for project applicants.

Regarding the comment's suggestion for the County to contact the Metropolitan Water District, the Los Angeles Department of Water and Power, other water purveyors, the State Water Resources Control Board, the Los Angeles County Regional Water Quality Control Board, and the state Department of Health Services, the County has and continues to engage and collaborate with local and state water planning agencies, which influences County planning efforts. For example, the County is developing strategies to expand recycled water supply and treat concentrates, a byproduct of the advanced water treatment of wastewater. Additional strategies, including the coordination of water agencies, related to recycled water are under development through the Draft County Water Plan:
<https://lacountywaterplan.org/Home>.

O6-18 The Checklist does not require that all new projects must achieve an employment density of 300 jobs per acre. This is a Countywide goal, not a project-specific

mandate. Please see General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist.

- O6-19 See General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist. Responding to the comment’s concern regarding technical support regarding GHG reductions, the County conducted quantitative GHG modeling for 18 of the 25 measures included in the Revised Draft 2045 CAP. The estimated reductions associated with each of these measures can be found in Chapter 3.3, *Strategies, Measures, and Actions*, of the Revised Draft 2045 CAP. The technical substantiation for these measures, i.e., full detail on data sources and calculation methods for estimating GHG emission reductions, can be found in Appendix B, *Emissions Forecasting and Reduction Methods*. For further discussion, please refer to General Response 5.
- O6-20 See General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist. Regarding the cost to new development projects opting to utilize the Checklist for streamlining purposes, the commenter provides no evidence to support the claim that such costs would be “excessive,” and under CEQA, economic or social effects of a project onto themselves are not treated as significant effects on the environment; rather, the focus of CEQA is on physical changes in the environment.
- O6-21 See General Response 3, which addresses the Revised Draft 2045 CAP processes applicable to various project applicants and project-level requirements for CEQA streamlining as identified in the Checklist. This response includes revisions to the Checklist and Revised Draft 2045 CAP Appendix F to address the concerns raised by the comment.
- O6-22 See General Response 3, which addresses the Revised Draft 2045 CAP processes applicable to various project applicants and project-level requirements for CEQA streamlining as identified in the Checklist. This response includes revisions to the Checklist and Revised Draft 2045 CAP Appendix F to address the concerns raised by the comment. Project use of the Checklist is now voluntary. Also see General Response 4, which addresses the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative project GHG emission reduction measure in the Checklist. Specifically, for projects intending to use Checklist to streamline CEQA review of a their GHG impacts, the use of GHG offsets is not an option; however, the Revised Draft 2045 CAP does not preclude a project from using GHG offsets to demonstrate net zero emissions (or carbon neutrality) or to attain any other CEQA significance threshold, in lieu of using the Checklist.
- Regarding the relationship of the Revised Draft 2045 CAP to the County’s General Plan and housing goals, as well as potential litigation, please see General Response 2.
- O6-23 Regarding the comment’s concern regarding mandatory Revised Draft 2045 CAP measures, the Revised Draft 2045 CAP has been revised to provide that demonstrating

consistency with the Revised Draft 2045 CAP Checklist is not mandatory for all new development projects. It is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). As such, the Revised Draft 2045 CAP measures are not "over-prescriptive" as the comment alleges, as projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

The County disagrees that the Revised Draft 2045 CAP should be revised to be "flexible and aspirational" because such revisions would inhibit the County's ability to implement reduction strategies, measures, and actions necessary to achieve Countywide GHG reduction targets consistent with state and local goals, including AB 1279, the 2022 Scoping Plan, the *We Are Still In* Declaration, and the *OurCounty: Los Angeles Countywide Sustainability Plan*.

The Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis. (See Appendix F, p. F-5 et seq.) Nothing beyond the Tier 1 measures (or alternative measures if Tier 1 measures are not feasible) is required for project applicants to streamline their CEQA GHG impacts analysis.

Please refer to General Response 3 for further discussion regarding the required elements of the Revised Draft 2045 CAP and the processes applicable to various project applicants, and to General Response 2 regarding the relationship of the Revised Draft 2045 CAP to the General Plan.

The comment does not provide evidence that findings of infeasibility with the Tier 1 Checklist measures may necessitate a "a great expense of time, money and process," and such statements are speculative and do not raise significant environmental issues related to the Recirculated Draft PEIR, such that no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

Regarding the commenter's concern regarding the "weaponization" of the Revised Draft 2045 CAP under CEQA, potential litigation challenging future projects is speculative at this time. While potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O6-24 Regarding the comment's concern regarding mandatory elements of the Revised Draft 2045 CAP, the County has revised the Checklist to clarify that the Checklist will be used *only* for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new

development projects, but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis. Projects that do not intend to streamline their impact analyses would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

The Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis. (See Appendix F, p. F-5 et seq..) The Checklist provides a list of Tier 1 measures, which are required for all discretionary private development projects to demonstrate consistency with the Revised Draft 2045 CAP unless alternative measures are proposed. Nothing beyond the Tier 1 measures is required for project applicants to streamline their CEQA GHG impacts analysis. Please refer to General Response 3 for further discussion as to the required elements of the Revised Draft 2045 CAP for certain projects.

Further, as stated above, since the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan, future project General Plan consistency would be determined by comparing such project with the policies in the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP. The Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state's GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.)

Regarding the comment's mention of the County of San Diego's Climate Action Plan and related litigation, please refer to Response to Comment O5b-36, which explains why the Revised Draft 2045 CAP is distinguishable from the County of San Diego's CAP and why the holding in *Golden Door* does not directly apply here.

The comment also mentions legal challenge of future projects. While potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

In response to the comment's point about including a "statement of limitation of use," the Revised Draft 2045 CAP explains how it will be used by project applicants. In addition to the above response regarding how applicants may use the Checklist to streamline CEQA GHG analysis, please refer to General Response 3 for further discussion regarding how the Revised Draft 2045 CAP will be applied to future projects.

- O6-25 Any development project wishing to pursue its own project-level CEQA analysis of GHG impacts may do so. The Checklist will be used *only* for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections

15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis. Please see General Response 3 for additional discussion, including the now voluntary applicability of the Checklist to future approvals of previously planned projects. This response includes revisions to the Checklist and Draft 2045 CAP Appendix F to address the concerns raised by the comment.

- O6-26 In response to the comment regarding limiting its proposed Offsite GHG Reduction Program to projects that are located within the jurisdictional boundaries of unincorporated Los Angeles County, and its concerns about cost, scalability to meet demand, and inconsistency with CARB's 2022 Scoping Plan. Which states a preference for localized off-site mitigation offsets but allows non-local offsets, please see *General Response 4: GHG Offsets* and *General Response 6: Offsite GHG Emissions Reduction Program Framework* for explanation and technical justification regarding the Offsite GHG Reduction Program Framework's requirement that offsite GHG reduction projects be located within the jurisdictional boundaries of the County.
- O6-27 The County appreciates the comment's discussion regarding California's per capita GHG emissions relative to other states and the electric vehicle adoption rate of the Southern California region; however, the use of GHG offsets is not an option with respect to demonstrating compliance with the Revised Draft 2045 CAP CEQA streamlining requirements using Step 4 of the Checklist (Identify Alternative Project Emissions Reduction Measures). For explanation and technical justification regarding this restriction, please see *General Response 4: GHG Offsets*, which addresses the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist.
- O6-28 In response to the comment's point regarding limiting the proposed Offsite GHG Reduction Program to projects that are located within the jurisdictional boundaries of unincorporated Los Angeles County, the Revised Draft 2045 CAP does not preclude a project preparing a project-specific CEQA GHG analysis from using GHG offsets (generated within the County or outside the County) to demonstrate net zero emissions (or carbon neutrality) or to attain any other CEQA significance threshold. However, the use of GHG offsets is not an option with respect to demonstrating compliance with the Revised Draft 2045 CAP CEQA streamlining requirements using Step 4 of the Checklist (Identify Alternative Project Emissions Reduction Measures). For explanation and technical justification regarding this restriction, please see *General Response 4: GHG Offsets*. The County has reviewed CARB's Scoping Plan (cited in footnote 7 and 8 of the comment letter) and has determined that the information provided does not bear on, which addresses the adequacy or use of voluntary GHG offset credits in the Recirculated Draft PEIR or the conclusions reached 2045 CAP and as an alternative GHG reduction measure in the Recirculated Draft PEIR. Nonetheless, the information has been included in the record where it will be considered as part of the decision-making process.

O6-29 Regarding the comment’s concern regarding federal constitutional principles, the Revised Draft 2045 CAP is a legislative enactment and does not implicate the doctrine of “unconstitutional conditions” because the Revised Draft 2045 CAP does not demand the conveyance of protected property interests. “Nothing in *Koontz* suggests that the unconstitutional conditions doctrine under *Nollan* and *Dolan* would apply where the government simply restricts the use of property without demanding the conveyance of some identifiable protected property interest (a dedication of property or the payment of money) as a condition of approval.” (*California Building Industry Association v. City of San Jose* (2015) 61 Cal.4th 435, 460 [holding the city’s inclusionary housing ordinance “does not violate the unconstitutional conditions doctrine because there is no exaction – the ordinance does not require a developer to give up a property interest for which the government would have been required to pay just compensation under the takings clause outside of the permit process.”] The Revised Draft 2045 CAP neither restricts the use of property nor requires future project applicants to dedicate any portion of its property to the public or to pay any money to the public but rather, the Revised Draft 2045 CAP falls within municipalities’ general broad discretion to regulate the use of real property to serve the legitimate interests of the general public and the community at large.

In response to the comment’s point about mandatory CAP measures and actions and General Plan adoption, the County has chosen to prepare and utilize the Revised Draft 2045 CAP as an implementation program for the Air Quality Element of the General Plan and would adopt the Revised Draft 2045 CAP by General Plan Amendment together with revisions to the Air Quality Element. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP.

The County has developed the Checklist, Appendix F, as a subcomponent of the Revised Draft 2045 CAP implementation program. The Checklist would be used to determine the consistency of future projects with the Revised Draft 2045 CAP *only* if such future projects intend to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize only if they wish to streamline their project’s GHG impact analysis. The Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis. (See Appendix F, p. F-5 et seq..) The Checklist provides a list of Tier 1 measures, which are required for all discretionary private development projects unless alternative measures are proposed to demonstrate consistency with the Revised Draft 2045 CAP in order to streamline a project’s GHG impact analysis. Nothing beyond the Tier 1 measures is required for project applicants to streamline their CEQA GHG impacts

analysis. Please refer to General Response 3 for further discussion regarding the Revised Draft 2045 CAP processes applicable to various applicants.

Regarding the commenter's concern that Revised Draft 2045 CAP measures could be "weaponized" by project opponents under CEQA, potential litigation challenging future projects is speculative at this time. This comment does not raise significant environmental issues related to the Recirculated Draft PEIR warranting a response pursuant to CEQA Guidelines section 15088(a). Nevertheless, the Revised Draft 2045 CAP is a defensible document and there is no evidence presented that such litigation is likely to occur.

O6-30 In response to the comment's point about the *Nolan/Dollan/Koontz* line of cases and the doctrine of "unconstitutional conditions," the cited cases stand for the proposition that a public agency could be found liable for a "taking" of property subject to the Fifth Amendment, where the agency imposes a condition on a development permit requiring the applicant to give up a property right, where the condition does not have an adequate "nexus" and is not "roughly proportional" to the impacts of the development project. The principles of the cited cases apply to monetary exactions as well as physical property exactions. For a discussion regarding why the Revised Draft 2045 CAP does not violate constitutional principles, please see Response to Comment O6-29 above.

The Revised Draft 2045 CAP does not impose unduly burdensome impositions and conditions of approval. The County has developed the Checklist, Appendix F, as a subcomponent of the implementation program. The Checklist would be used to determine the consistency of future projects with the Revised Draft 2045 CAP *only* if such future projects intend to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Nothing beyond the Checklist's Tier 1 measures (or alternative measures if Tier 1 measures are not feasible) is required for project applicants to streamline their CEQA GHG impacts analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist but rather would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. For such projects, there is no requirement to demonstrate consistency with the Revised Draft 2045 CAP. Please refer to General Response 3 for further discussion regarding how the Revised Draft 2045 CAP will be applied to future projects.

The Revised Draft 2045 CAP, in Appendix F Section F.4, includes a framework for the County's Offsite GHG Reduction Program. Action ES5.4 calls for developing an Offsite GHG Reduction Program, which would be available to project applicants to use as an alternative GHG reduction measure by allowing applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. The comment is correct that all offsite projects must be located within the jurisdictional boundaries of unincorporated Los Angeles County such that

emissions reductions achieved by such offsite projects will be accounted for in future GHG inventory updates and will contribute toward the emissions reduction targets, which are also based on the jurisdictional boundaries of the unincorporated County. For further discussion of the Offsite Program, please refer to General Response 6.

O6-31 Regarding the comment’s interpretation of the process for project applicants to show consistency with the Revised Draft 2045 CAP, please refer to General Response 3 for a comprehensive explanation of determining consistency with the Revised Draft 2045 CAP. The potential for litigation and the alleged “weaponization of CEQA” is a speculative assumption. This comment does not raise significant environmental issues related to the Recirculated Draft PEIR warranting a response pursuant to CEQA Guidelines section 15088(a). Nevertheless, the Revised Draft 2045 CAP is a defensible document and there is no evidence presented that such litigation is likely to occur.

O6-32 The Revised Draft 2045 CAP does not overburden project applicants. The Revised Draft 2045 CAP builds on previous climate action work from the 2020 CCAP, adopted in October 2015 as a subcomponent of the Air Quality Element of the *Los Angeles County General Plan 2035* and includes new emissions reduction targets consistent with AB 1279 and the 2022 Scoping Plan. The County has developed the Checklist, Appendix F, as a subcomponent of the Revised Draft 2045 CAP implementation program. Use of the Checklist is no longer mandatory for new development projects and is rather a voluntary option that project applicants can utilize to streamline their project’s GHG impact analysis. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Please refer to General Response 3 for further discussion regarding the Revised Draft 2045 CAP processes applicable to project applicants.

The Revised Draft 2045 CAP would not be inconsistent with the Legislature’s stated need for the supply of affordable housing. In fact, the Revised Draft 2045 CAP focuses on the importance of housing availability and seeks to balance an encouragement for increased housing supply with GHG reductions. The County prioritizes strategies that both invest in and support frontline communities, which include providing specific incentives and subsidies for affordable housing developments and implementing other initiatives that integrate equity in ways that help reverse the trends of discrimination and disinvestment. For example, Action ES5.1 requires identification of new requirements for new development to reduce GHG emissions from energy use, transportation, and other sources that includes affordable housing considerations in these requirements and supporting measures to maintain housing affordability. Measure T1 seeks to increase housing opportunities that are affordable and near high-quality transit areas to reduce VMT. Action T1.2 directs the County to develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. As such, the Revised Draft 2045 CAP implements measures and actions that would help fulfill the County’s housing law compliance obligations.

For a discussion regarding why the Revised Draft 2045 CAP is not inconsistent with the doctrine of unconstitutional conditions, please refer to Response to Comment O6-30.

- O6-33 The comment does not provide support for its allegations regarding housing supply, production, and costs, homeownership opportunities, rental rates, and economic effects, which are all speculative. The Revised Draft 2045 CAP is a policy document that would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP. Under CEQA, economic or social effects of a project onto themselves are not treated as significant effects on the environment; rather, the focus of CEQA is on physical changes in the environment. The comment does not support its speculative assumptions regarding housing with any evidence, such that the County cannot provide a further, specific response.



May 15th, 2023

Sent via email

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Re: Comments on the Draft Los Angeles County 2045 Climate Action Plan and Draft Recirculated Environmental Impact Report

Dear Ms. Hua:

These comments are submitted on behalf of the Center for Biological Diversity (the “Center”) regarding the Draft Los Angeles County 2045 Climate Action Plan (“Plan” or “Draft Plan”) and its Recirculated Draft Environmental Impact Report (“RDEIR”). The Center previously submitted comments on July 18, 2022 on an earlier version of the Plan and its Draft Environmental Impact Report, which is included here as Exhibit 1 (“July 18th Letter”). We hereby incorporate the comments in the July 18th Letter as well as in previous letters of the Center attached thereto, and request that the issues raised in those letters be considered in preparing the Final EIR and any further revisions to the Plan.

O7-1
O7-2

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County (“County”).

I. The County Should Include Power Plant Emissions in its Greenhouse Gas Inventory and Specific Measures in the CAP to Phase Out Power Plant Pollution.

O7-3
O7-4
O7-5

As noted in our prior comments, and consistent with climate science and equity, California must transition off fossil fuel electricity and to 100% renewable, just energy by 2030.¹ In order to

¹ See, e.g. United Nations Secretary General, Amid Backsliding on Climate, the Renewables Effort Now Must be Tripled (April 4, 2022) available at <https://www.un.org/sg/en/content/sg/articles/2022-04-04/amid-backsliding-climate-the-renewables-effort-now-must-be-tripled>; also Global 100% RE Strategy Group,

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| meet this target, however, the County should set the most ambitious goals, <u>including setting a</u> | O7-5 (cont.) |
| schedule to phase out power plants and accelerate decarbonization efforts. ¹ The Revised Draft CAP | |
| still lacks a GHG emissions reduction target for the electricity generation sector, instead focusing | O7-6 |
| on consumer demand solutions, and entirely omits consideration of climate disruptive pollution | |
| from power plants. | |
| ¹ The County has revised the CAP to clarify that it does not consider pollution from power | O7-7 |
| plants within the County environmental setting. ² ¹ The County reasons that it has “no jurisdictional | |
| control or influence” over these emissions. ³ | O7-8 |
| ¹ This omission is particularly problematic given the number of power and peaker plants | |
| (fueled by either natural gas or oil) within the County. ⁴ These power and peaker plants are | O7-9 |
| “disproportionately located in disadvantaged communities, where vulnerable populations already | |
| experience high levels of health and environmental burdens.” ⁵ ¹ The County should exercise its | O7-10 |
| authority and influence to the greatest extent legally and practicable feasible as either a responsible | |
| or lead agency to address this source of pollution. | |
| ¹ Deferring mitigation of this climate disruptive pollution to either CARB or the air districts | O7-11 |
| forecloses opportunities for the County to target gaps in state and air district regulation of the | |
| energy sector. For instance, the state’s 100% zero carbon ⁶ target focuses on retail sales only. ¹ This | O7-12 |
| limitation to retail sales means that power plants can on the one hand meet the SB 100 target, but on | |
| the other hand, still combust fossil fuels or other feedstocks for end uses outside of retail sales, such | O7-13 |
| as to meet transmission and distribution losses from the grid. ⁷ ¹ This could potentially amount to 10- | |
| 15% of power generation derived from combusting natural gas at power plants. ⁸ ¹ The Revised Draft | O7-14 |
| CAP still lacks any measure to address these significant GHG and co-pollutant emissions from the | |
| power plant sector. | |
| II. The County Should Accelerate the Timeline for Measures to Achieve the Full Local | O7-15 |
| and Climate Benefits Presented by Distributed Energy Resources. | |
| ¹ We thank the County for revising the Draft 2045 CAP to include a focus on distributed | O7-16 |
| energy resources (“DER”). ¹ Due to the many benefits of DER, as detailed below and in our prior | O7-17 |
| comments, DER can play a key role to achieve CAP decarbonization objectives. ¹ As currently | O7-18 |

¹“Joint declaration of the global 100% renewable energy strategy group,” (2021) available at <https://global100restrategygroup.org/>.

² Revised Draft CAP at 1-6.

³ *Id.*

⁴ See e.g. PSE Healthy Energy, *Energy Storage Peaker Plant Replacement Project*, available at <https://www.psehealthyenergy.org/our-work/energy-storage-peaker-plant-replacement-project/>

⁵ *Id.*

⁶ The Center maintains disagreement with the (Revised) Draft CAP definition of zero carbon. As detailed in our prior comments, zero carbon should exclude all combustion resources. O7-19

⁷ LA100 Renewable Energy Study Executive Summary (March 2021) at 8, available at <https://www.nrel.gov/docs/fy21osti/79444-ES.pdf>.

⁸ *Id.*

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| revised, however, the Draft CAP diminishes this role by deferring realization of the full potential of DER in the County to an unknown time in the future, and potentially not until 2045. | 07-18 (cont.) |
| As noted in our prior comments, DER confer significant community benefits. These include local economic benefits, including but not limited to local clean energy installation jobs, which are more numerous than utility-scale clean energy jobs. ⁹ | 07-20 |
| The Revised Draft CAP echoes several of these benefits of DER. The Revised Draft CAP identifies DER as a “key climate action for wildfire-prone areas,” ¹⁰ and in particular “an alternative to the costly infrastructure upgrades that would be required to maintain uninterrupted power service.” ¹¹ Compared to utility-scale development, DER also avoid aesthetic impacts, ¹² do not risk conflict with existing plans and policies, as detailed below, and can leverage substantial federal incentives, in particular for resource deployment in disadvantaged communities. ¹³ | 07-21 07-22 |
| In addition, DER present an opportunity to tackle the escalating electricity rates in the County. Although the RDEIR notes SCE’s planned investment of \$75 billion in utility infrastructure, ¹⁴ to assist in decarbonization strategies, this \$75 billion would then be passed on to SCE ratepayers, including those within the County. DER, on the other hand, could avoid a substantial portion of this investment by avoiding costs associated with utility-scale solutions. The Public Utilities Commission has identified transmission buildout as the number one cause of high electricity bills. ¹⁵ The number two cause is costs to make utility-scale solutions resilient, primarily wildfire mitigation. As the Revised Draft CAP notes, DER can avoid all of these costs to the benefit of County ratepayers that receive SCE service. Adequate deployment of rooftop solar displaces the need for significant transmission and distribution costs that would traditionally be passed on to ratepayers. ¹⁶ By contrast to spending \$75 billion, growing local solar and storage would save California ratepayers \$4 billion a year, adding up to \$120 billion over the next 30 | 07-23 07-24 07-25 07-26 07-27 07-28 |

⁹ See, e.g., Eric Wesoff and Maria Virginia Olano, *Most US solar jobs are in installation, not manufacturing*, Canary Media, <https://www.canarymedia.com/articles/solar/chart-most-us-solar-jobs-are-in-installation-not-manufacturing> (Utility-scale solar has a much lower level of labor intensity than distributed solar installation).

¹⁰ See Revised Draft CAP at D-15.

¹¹ RDEIR at 2-22.

¹² See e.g. RDEIR at 3.2-9. (“[DER] would be more likely to blend in with the surrounding existing development and visual environment, and they would not be likely to create changes to visual character or quality that would be visible from a scenic vista or that would noticeably significantly interrupt views available from scenic vistas.”)

¹³ See e.g. Revised Draft CAP, Appendix G-4 (referencing “\$7 billion for competitive grants to enable low-income and disadvantaged communities to deploy or benefit from zero-emission technologies, including distributed technologies on residential rooftops” from the Inflation Reduction Act.)

¹⁴ RDEIR at 3.7-13.

¹⁵ See e.g. CPUC, *Utility Costs and Affordability of the Grid of the Future* (May 2021) available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2021/senate-bill-695-report-2021-and-en-banc-whitepaper_final_04302021.pdf

¹⁶ For instance in 2018 alone, the California Independent Systems Operator, citing increased rooftop solar and energy efficiency, canceled 20 transmission projects at a \$2.6 billion savings to all ratepayers.

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| years. ¹⁷ Similarly, eliminating the need for additional transmission also eliminates the need for utility-caused and expensive wildfire mitigation, such as the costs for undergrounding of transmission lines and associated power shutoffs. ¹⁸ | O7-29 |
| In fact, the majority of the metrics detailed to assess the effectiveness of the County’s decarbonization of the energy supply efforts are DER. In addition to “total installed DER capacity,” other metrics include degree of deployment of rooftop solar PV, energy efficiency, microgrids, and frontline community benefits — all DER. ¹⁹ | O7-30 O7-31 |
| Finally, the Revised Draft CAP notes: The energy transition includes not only a shift in energy sources, but also a shift in where and when energy is generated and how it is used and managed. This requires rethinking the energy grid to move away from a centralized system dominated by large-scale fossil fuel-based power plants with a one-way flow of energy from source to customers. Instead, the grid is becoming increasingly decentralized, distributed, localized, and network-based. Over time, this will enable greater energy resilience because the system will be able to respond and adapt to local conditions in a more precise way, limiting large-scale disruptions. ²⁰ | |
| The County is clearly aware of how DER does and continues to play an integral and growing role in decarbonizing the energy system. Yet surprisingly, the County does not prioritize DER as it does utility-scale measures. Having identified that SCE lacks sufficient capacity to enroll residents and businesses in their Green Rate option, Measure ES2 is revised to strive for enrollment in SCE’s program (utility-scale resources, located at great distance from the County) “or other available 100 percent zero carbon electricity service by 2030.” ²¹ This lacks the specificity required under CEQA; CEQA mitigation measures and/or CAP GHG reduction strategies must be specific, enforceable, and be capable of being implemented. The County should instead prioritize DER, and then have remaining capacity met with SCE or CPA Green Power rate options. Similarly, while the Revised Draft CAP increases the performance objectives for rooftop solar PV (Measure ES3), the County should consider how more aggressive targets for Measure E3 can cure the vague provisions in Measure ES2. | O7-32 O7-33 O7-34 O7-35 O7-36 O7-37 |
| This would also require accelerating development of the “community energy map” (measure ES4.3). The community energy map would identify opportunities for DER deployment, but is currently drafted as a medium to long term measure for completion between 2035-2045. Several | O7-38 O7-39 |

¹⁷ Vibrant Clean Energy, Role of Distributed Generation in Decarbonizing California by 2045 (July 2021) at 6 available at https://www.vibrantcleanenergy.com/wp-content/uploads/2021/07/VCE-CCSA_CA_Report.pdf.

¹⁸ R.20-08-020, Protect Our Communities Foundation, Rebuttal Testimony of Bill Powers, P.E. (July 16, 2021) at 28-32.

¹⁹ Revised Draft CAP at 4-6.

²⁰ Revised Draft CAP at 1-26.

²¹ See e.g. Revised Draft CAP at B-15.

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| existing studies already show the potential for DER in the County. ²² | O7-39 (cont.) |
| The County should instead leverage that research and work with community-based organizations that already seek DER to deliver community benefits. | O7-40 |
| The County should not defer realization of the full potential of DER for another 10 plus years, or even longer to 2045. | O7-41 |
| Delaying implementation of DER-focused strategies risks locking the County into utility-scale solutions that present greater environmental harms, and are not even built yet. | O7-42 |
| III. DER Avoid Significant Impacts Omitted From the Revised CAP and RDEIR. | O7-43 |
| The County should revise the CAP and RDEIR to account for the environmental impacts from utility-scale solutions, including biofuels. | O7-44 |
| Poorly sited large-scale solar development can result in habitat fragmentation, loss of connectivity for terrestrial wildlife, destruction of carbon sequestration of soils, and introduction of predators and invasive weed species on intact habitat. ²³ | O7-45 |
| Onshore wind projects, though they require a smaller footprint than solar projects and thus pose less terrestrial damage, ²⁴ still pose risks to bird and bat mortality, and threats of fragmenting large swaths of land and habitat due to adjacent power lines and roads. ²⁵ | O7-46 |
| Finally, geothermal energy has the potential to also impact biodiversity when sited adjacent to surficial thermal water features, which often are altered in their discharge | O7-47 |

²² See e.g. Los Angeles Business Council, UCLA Luskin Center for Innovation, *Bringing Solar Energy to Los Angeles* (July 2010), available at https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/Bringing_Solar_Energy_to_Los_Angeles.pdf.

²³ *Id.* Critically, although ample space exists to develop solar facilities outside areas of high conservation value, some of the nation’s utility-scale solar development has occurred in core ecological habitats. Careful siting on already built environments, like residential and commercial building rooftops and parking lots, as well as degraded lands and areas without imperiled species, can avoid these impacts. See R.R. Hernandez et al., *Techno-Ecological Synergies of Solar Energy for Global Sustainability*, 2 *Nature Sustain.* 560 (2019); D. Richard Cameron et al., *An Approach to Enhance the Conservation-Compatible of Solar Energy Development*, *PLOS One* (2012). See also Patrick Donnelly & Jean Su, *No free lunch on green energy*, *Las Vegas Review-Journal* (June 19, 2021) available at <https://www.reviewjournal.com/opinion/nevada-views-no-free-lunch-on-green-energy-2382525/>; Noelle Swan, *Energy, Wildlife, and the Myth of the Zero-Sum Game*, *Christian Science Monitor* (July 12, 2021), <https://www.csmonitor.com/Commentary/From-the-Editor/2021/0712/Energy-wildlife-and-the-myth-of-the-zero-sum-game>.

²⁴ Communication with Ben Hoen, Research Scientist, Lawrence Berkeley National Lab (Aug. 13, 2021). The National Renewable Energy Laboratory (NREL) estimated a density of 2.74 +/- 1.4 MW/km² for wind projects. See Dylan Harrison-Atlas et al., *Spatially-Explicit Prediction of Capacity Density Advances Geographic Characterization of Wind Power Technical Potential*, 14 *Energies* 3609, 3617 (2021). The Lawrence Berkeley National Lab estimated a density 86 MW/km² for solar. See Bolinger, "Land requirements for utility-scale PV," *ASES Solar* 2021, August 5, 2021. For solar projects, nearly 100% of the land is covered with panels, while wind projects—after construction—only take up the area of the pad and access roads. NREL estimated this "direct" land impact as 333 MW/km². See Paul Denholm et al., *Nat. Renewable Energy Lab., Land-Use Requirements of Modern Wind Power Plants in the United States* 10 tbl. 1 (2009) available at <https://www.nrel.gov/docs/fy09osti/45834.pdf>.

²⁵ See e.g. Scott Loss et al., *Direct Mortality of Birds from Anthropogenic Causes*, 46 *Ann. Rev. Ecol., Evol., and System.* 99 (2015) (detailing that limiting biodiversity impacts and bird and bat mortality can be achieved with operational measures, such as higher cut-in speeds and curtailment during certain seasons times of day, heights and outside migratory pathways).

temperature, geochemistry, or quantity after production commences.²⁶ Rooftop, parking lot, and ground mounted solar, in contrast, lack the impacts resulting from remote, utility-scale projects; and more than sufficient solar potential remains available from rooftop, parking lot and ground mounted solar to meet California’s decarbonization targets.²⁷

O7-47
(cont.)

O7-49

While the Revised Draft CAP details some of these significant impacts, the RDEIR fails to analyze the degree of these impacts, especially when DER present an environmentally superior alternative.²⁸ Notably, DER can displace the need for dirty combustion resources, including biomethane.²⁸ The Revised Draft CAP and the RDEIR fail to detail the significant local impacts of biomethane production and combustion within the County. Biomethane production and combustion, while considered a zero-carbon resource under SB 100, cause undue harm to disadvantaged communities and present a false climate solution.²⁹ The IPCC itself acknowledges, with high confidence, that biofuels can have “adverse socio-economic and environmental impacts, including on biodiversity, food and water security, local livelihoods, and rights of Indigenous Peoples.”³⁰ Biomass facilities are often concentrated in low-income communities and communities of color that are already suffering from high pollution burdens, and worsening environmental injustices. For example, in the San Joaquin Valley in California, four out of five active biomass plants and four out of five idle biomass plants are located in DACs.³¹ Most of these communities

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O7-51

²⁶ Sorey, M. L. 2000. *Geothermal development and changes to surficial features: Examples from the Western United States*, Proceedings World Geothermal Congress, available at <https://www.geothermal-energy.org/pdf/IGAstandard/WGC/2000/R0149.PDF>.

²⁷ See e.g. Pursuing a Just and Renewable Energy System: A Positive & Progressive Permitting Vision to Unlock Resilient Renewable Energy and Empower Impacted Communities (May 2023) available at <https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Policy-Brief-for-Positive-Vision.pdf>

²⁸ See e.g. RDEIR at 2-26 (“use of biomethane on-site in buildings are key to decarbonization”).

²⁹ Properly accounting for the climate impacts of biomass and biomethane is particularly challenging. This is because carbon accounting for biogenic feedstocks involves complex counterfactuals about what would have happened to waste methane if it were not captured (for biomethane feedstocks), whether and when forest biomass will regrow (for woody biomass feedstocks), and what indirect land-use changes will result from using cropland to produce energy crops (for crop-based feedstocks). Consequently, experts that study the climate impacts of these feedstocks identify estimates with wide ranges of uncertainty. See, e.g., Richard Plevin, *Uncertainty in estimating the climate effects of biofuels: EPA Workshop on Biofuel Greenhouse Gas Modeling* (Mar. 1, 2022), available at <https://www.epa.gov/system/files/documents/2022-03/biofuel-ghg-model-workshop-estimating-biofuel-climate-effects-2022-03-01.pdf>; Miguel Brandao et al., *On quantifying sources of uncertainty in the carbon footprint of biofuels: crop/feedstock, LCA modelling approach, land-use change, and GHG metrics*, *Biofuel Rsch. Journal* (June 1, 2022) available at https://www.biofueljournal.com/article_148830_cf495668b16943c4b53ed4b7e16977ce.pdf.

O7-52

The U.S. EPA for example, found in its review of the Renewable Fuel Standard that the program had led to the conversion of up to 8 million acres of land—nullifying and overwhelming any climate benefit the program might have had. See EPA, *Biofuels and the Environment: Second Triennial Report to Congress*, at 39 (June 29, 2018), available at https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=IO&dirEntryId=341491.

³⁰ UN Intergovernmental Panel on Climate Change, 2023, AR6 Synthesis Report 2023, <https://report.ipcc.ch/>

³¹ See generally Cal. Office of Env. Health Hazard Assessment, SB 535, available at <https://oehha.ca.gov/calenviroscreen/sb535>

are within the ninetieth percentile for air pollution burden, and some are in the top percentile. Biomass power plants are also guilty of repeated air quality violations.³² Yet the RDEIR does not detail any of these significant impacts — impacts that DER can avoid.³³

O7-51
(cont.)

IV. The RDEIR Does Not Adequately Respond to Comments Advocating for A More Realistic Target for Phasing Out Oil and Gas Operations.

O7-53

The Draft Climate Action Plan continues to include an underwhelming and confusing ultimate target of 80 percent reduction of emissions from oil and gas operations by 2045. As noted in the RDEIR, the Board of Supervisors adopted the Oil Well Ordinance on January 24, 2023. That Ordinance prohibits new oil wells and makes existing oil wells and production facilities nonconforming uses. Under the County Code, such nonconforming uses must be discontinued and removed from their sites within twenty years.³⁴ The Climate Action Plan should at a minimum reflect this timeline (i.e., 2043) for phase out of oil and gas operations and acknowledge that the timeline could be shortened further following the amortization study. In addition, either the target should be a 100% reduction of emissions from oil and gas operations, or the County should explain why an 80% reduction is appropriate. While there may be certain operations that are not removed by 2043 as a result of the Oil Well Ordinance, including orphan wells with no discernable owner, or operations not subject to the Oil Well Ordinance, the County should be transparent about why it assumes 20% of emissions will not be addressed.

O7-54

O7-55

O7-56

The RDEIR also makes unfounded assertions about the possible impacts of an earlier oil and gas phase out. While we acknowledge and appreciate the hard work of County staff to move this process forward, we disagree with the discouraging framing that completing a phase-out by 2045 will be “daunting.” Los Angeles County is one of several jurisdictions moving forward with a process to phase out oil and gas extraction. As local governments gain more experience, it is likely that implementation of phase-outs will become easier. In addition, all discussion of possible impacts from a phase-out ahead of 2043 is speculative and should be reserved until the Board of Supervisors moves forward with any such plan.

O7-57

O7-58

O7-59

Four active biomass plants (Rio Bravo Fresno, DTE Stockton, Merced Power, and Ampersand Chowchilla) and four idle biomass plants (Community Recycling Madera Power, Covanta Mendota, Dinuba Energy, and Covanta Delano) are in census tracts designated as disadvantaged under SB 535.

³² See EPA Enforcement and Compliance History Online Database, available at <https://echo.epa.gov/>.

³³ See e.g. RDEIR at 3.12-17: “retrofitting of existing buildings, development along existing transit areas, infill projects in urban locations that are already developed, electric vehicle charging stations, or distributed energy resources such as rooftop solar panels”) thereby avoiding environmental impacts and inconsistencies with local plans and ordinances; RDEIR at 3.12-18: “Larger scale projects facilitated by the Draft 2045 CAP . . . such as utility-scale solar generation facilities . . . could be inconsistent with certain General Plan policies related to land use, specifically Policies LU 6.1, LU 6.2, LU 6.3, LU 10.3, LU 10.5, LU 10.10, C/NR 13.1, and C/NR 13.8.”)

O7-60

³⁴ County Code § 22.172.050(B). It is possible that the time period could be extended for some wells through the process outlined in section 22.172.060.

O7-61

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|---|--------------|
| <p>V. The Plan Should Further Emphasize Conservation of Natural Lands and The Role of Poorly Sited Development in Increasing Wildfire Risk.</p> | <p>07-62</p> |
| <p>As outlined in the July 18th Letter (pages 14-18), the Plan should include strategies, funding, and measures to conserve valuable carbon-sequestering, biodiversity-supporting, climate change-resilient non-forest habitats like shrublands, grasslands, deserts, and wetlands. We appreciate that revisions have been made to the Draft CAP to address our comments and we urge further focus and funding on conserving these habitats to combat climate change.</p> | <p>07-63</p> |
| <p>As outlined in the July 18th Letter (pages 19-21), the Plan must address the role of poorly planned development in contributing to wildfire risk while implementing ecosystem appropriate wildfire management strategies. This is necessary to ensure the Plan is consistent with other County policies (including the General Plan’s Safety Element) and to acknowledge and disclose the link between climate change and land use planning. While we appreciate that the Draft Plan now includes some revisions consistent with our recommendations to revise Implementing Action A1.2, it still does not acknowledge the link between development in fire-prone areas and increased fire risk and the climate crisis.</p> | <p>07-64</p> |
| <p>We also note that despite our recommendation (page 22), the Draft Plan does not appear to set any goals or take any actions to incorporate traditional ecological knowledge into wildfire management and climate change strategies. We urge incorporation of these feasible measures into the Plan and/or RDEIR so reduce wildfire risk and protect carbon-storing habitats.</p> | <p>07-65</p> |
| <p>VI. The CAP Streamlining Checklist Should Provide More Clarity on Performance Standards.</p> | <p>07-66</p> |
| <p>We note that the Draft CAP Checklist in Appendix F includes various proposed checklists and decision-making processes to determine which projects are eligible for CEQA streamlining under the CAP and which project may not be. As outlined in previous letters including our April 30, 2020 letter, CAP mitigation measures must be specific and enforceable in order to render the CAP legally defensible as a CEQA streamlining program. Unfortunately, the CAP still has significant defects in this area. For instance, Appendix F of the Draft CAP allows for streamlining if a project can demonstrate compliance with various county ordinances including a zero net energy (ZNE) ordinance, all electric buildings ordinance, zero emission vehicle master plan, building performance standards, and/or net zero water ordinance. Yet, as the Draft CAP acknowledges, none of these ordinances have been adopted, although the County is seeking to adopt them by 2030.³⁵</p> | <p>07-67</p> |
| <p>The Draft CAP does not explain how CAP compliance on a project-by-project basis will be determined or achieved before adoption of these ordinances. The Draft CAP should provide more clarity as to what measures would be required for each type of project <i>prior</i> to adoption of each of these ordinances; for instance, until a ZNE ordinance is adopted, the Draft CAP should require ZNE for applicable projects and include a definition of ZNE within the checklist.</p> | <p>07-68</p> |
| <p>Without such clarity, the CAP cannot properly function as a CEQA streamlining document.</p> | <p>07-69</p> |

³⁵ RDEIR, Appx. F, at F-31.

VII. Conclusion

Thank you for the opportunity to submit comments on the Draft Plan and RDEIR. The concerns outlined in this letter are non-exhaustive, and we reiterate those issues that remain unaddressed from our July 18th Letter and the other Center letters attached thereto. We look forward to reviewing the analysis and mitigation strategies in the Final EIR and Plan and proposing suggestions to refine and strengthen them. We also are happy to meet again with County staff to discuss any of the recommendations in this letter, the July 18th Letter, or previous letters of the Center. Please do not hesitate to contact the Center with any questions at the email or number listed below.

O7-70

Sincerely,



J.P. Rose
Policy Director & Senior Attorney
Urban Wildlands Program
Center for Biological Diversity
Telephone: (408) 497-7675
jrose@biologicaldiversity.org

Exhibit 1



July 18, 2022

Sent via email

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
climate@planning.lacounty.gov

Re: Comments on the Draft Los Angeles County 2045 Climate Action Plan and Draft Environmental Impact Report

Dear Ms. Hua:

These comments are submitted on behalf of the Center for Biological Diversity (the “Center”) regarding the Draft Los Angeles County 2045 Climate Action Plan (Plan) and its Draft Environmental Impact Report (DEIR). The Center submitted comments on an earlier version of the draft Plan on April 30, 2020 and on the Notice of Preparation for the DEIR on February 1, 2022, which is included here as Attachment A. We hereby incorporate the comments in both letters by reference and request that the issues raised in those letters be considered in preparing the Final EIR and revised Plan.

O7-71

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County (“County”).

The County has proposed an “aspirational goal” of “carbon neutrality” in 2045 with interim targets of 40 percent and 50 percent GHG emissions below 2015 levels by 2030 and 2045, respectively. To adequately address the climate crisis and the closely related public health and environmental justice crises, the Plan must do better.

Climate science demands greater reductions in the near-term that will require a further accelerated transition away from fossil-fuel energy systems and an accelerated adoption of proven, cost-effective, zero-emission solutions that alleviate the disproportionate harm of fossil fuel extraction and combustion. As the world’s scientists have repeatedly warned, we are out of time to act on climate. We simply cannot afford any further delay of needed pollution reductions.

Accordingly, the Plan must achieve much more rapid emissions reductions in the near-term and prioritize emission reductions over “carbon neutrality.” Under the current Plan, the County projects that, by 2045, it will have a gap of approximately 23 percent “residual emissions” of GHG emissions reductions left to fill to reach carbon neutrality by 2045. (Plan at 3-3). It crosses its fingers and hopes to rely on new technologies, or – perhaps – carbon removal strategies, such as carbon capture and sequestration (CCS) and direct air capture (DAC). (Plan at ES-7, 3-8 – 3-9). There is much more the County can and must do to reduce emissions directly with proven, cost-effective solutions, rather than rely on speculative and problematic technologies like CCS, bioenergy, and DAC.

The Center appreciates the opportunity to raise these concerns with the County. If you have any questions about the Center’s concerns, please contact Hallie Kutak at the phone number or email listed at the end of this letter.

I. THE COUNTY MUST INCLUDE A MORE ACCELERATED OIL AND GAS PRODUCTION PHASE OUT MEASURE AND TRANSITION TO CLEAN RENEWABLE ENERGY BY 2030.

A. California Should Phase Out Fossil Fuel Extraction by 2030, If Not Earlier.

Angelenos have been exposed to the harmful impacts of living near fossil fuel production for far too long. The oil and gas industry pollutes our air, soil, and water; harms public health; and fuels the escalating climate crisis. Impacts in the County have been concentrated in historically disadvantaged communities: nearly 73 percent of County residents that live near oil and gas wells are people of color. (Los Angeles County Board of Supervisors Mitchell and Kuehl, 2021). To protect public health and avoid the worst climate catastrophes, a robust body of scientific research has established that no new fossil fuel production and infrastructure can be permitted, and the U.S. must end existing oil and gas production by 2030, not 2045, for a reasonable chance of limiting global temperature rise to 1.5°C.

Measure ES-1 of the Plan—develops a sunset strategy for oil and gas production in unincorporated Los Angeles County by 2045, with performance objectives of reducing emissions from operations by 40 percent below 2015 levels by 2030, 60 percent by 2035, and 80 percent by 2045 (Plan at 3-14)—is inconsistent with science-based climate targets and the County’s latest actions to protect communities from oil and gas extraction.

The Plan should instead include a measure to phase out all fossil fuel production by 2030 or earlier, to align with recent research about the measures necessary to ensure temperature rise does not exceed 1.5°C. For example, a recent report found that, for a 50 percent chance of staying within a 1.5°C carbon budget, there can be no new fossil fuel development and 40 percent of developed fossil fuel reserves need to stay in the ground. (Trout et al. 2022). Another recent report agreed that there can be no new fossil fuel production for a 50:50 chance of staying within 1.5°C temperature rise and added that the UN’s equity framing of “common but differentiated responsibility” requires wealthier nations with economies less dependent on oil and gas revenues to lead the way with high rates of closure and early phase-out dates. This means that, for the U.S. (and 18 other wealthy nations with the highest capacity for a just transition), oil and gas production must be cut by 74

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percent by 2030 with zero production by 2034. (Calverley & Anderson 2022). For this reason, ending oil and gas production throughout California in 2045 is compatible only with the lowest ambition temperature scenario studied; it falls “far short” of what is necessary to stay within a 1.5°C carbon budget. The proposed 2045 timeline for Los Angeles is similarly insufficient, despite the recognition in Goal 7 of the County’s 2019 Sustainability Plan that rapidly moving toward a zero-carbon energy system—including “eliminating fossil fuel production in the County, including drilling, extraction, and refining”—is necessary to keep the County’s commitment to containing temperature rise, in alignment with the goals of the Paris Climate Agreement. (Los Angeles Countywide Sustainability Plan, 2019).

A 2030 or earlier timeframe is also necessary for the Plan to be consistent with recent County actions. As noted in the Plan, in September 2021 the Board of Supervisors voted to phase out oil and gas drilling and ban all new drill sites in unincorporated County areas. The Plan fails to mention, however, that the September 2021 motion specifically requested an “analysis of the feasibility of a 5-year phase-out period.” (Los Angeles County Board of Supervisors Mitchell and Kuehl 2021). The Board of Supervisors requested the five-year timeline because it would align with actions by Culver City to phase out oil¹ and a similar proposal by the City of Los Angeles. More recently, the County Department of Regional Planning drafted an ordinance that will ban new drilling and make oil operations throughout the County a legal nonconforming use that must be phased out within 20 years. (Los Angeles County Department of Regional Planning, Staff Report 2022). The Department also posted a Request for Proposals for an amortization study that would determine the fastest date by which operations can be phased out. The ordinance is expected to be enacted in “late 2022,” and the Requests for Proposals are due July 12, 2022, with a proposed 18-month contract timeline and final amortization recommendations due in May 2023. (Los Angeles County Department of Regional Planning, RFP 2022). In other words, the County will soon have a 2042 default phase out deadline, which may move up to 2027 or some other date before 2030 if the amortization study finds those dates to be legally defensible. The Plan should align Measure ES-1 with these timelines.

Similarly, the Plan does not clarify why Measure ES-1 stops short of reducing emissions by 100 percent. Measure ES-1 focuses on reducing emissions 80 percent below 2015 levels by 2045 with a paired strategy of removing carbon with direct air capture and carbon sequestration. The inclusion of carbon capture as part of the strategy drives the uncertainty in costs associated with Measure ES-1. (Plan, Appendix E at E-3). Carbon capture adds potentially more than \$100 million to the cost estimate. There is no need to add millions of dollars in costs to this measure to capture or remove carbon dioxide when the County’s strategy already addresses the vast majority of oil and gas operations throughout the County. The County plans to phase out oil and gas operations through an amortization program that addresses all active and idle wells, and through a separate strategy to address wells in the Inglewood Oil Field. (Los Angeles County Department of Regional Planning, Ordinance Website 2022). The only wells that the County’s current efforts will not address before 2045 are “orphan” wells that have no known operator to hold accountable for proper well abandonment. And the County has begun work on a pilot program to address likely-orphan wells

¹ Culver City recently commissioned a study to determine what a reasonable amortization period would be for the oil wells within its jurisdiction and found that the operator achieved amortization of its capital investment *within four to five years of purchasing the wells*. (Cheek et al. 2020).

using state and federal funding. (Los Angeles County Board of Supervisors Hahn and Mitchell 2021). It is not clear if the Plan assumes that these orphan wells account for the remaining 20 percent of emissions that cannot be eliminated by 2045, or if there are other reasons why emissions cannot be eliminated. The County should explain why it expects emissions to decrease only 80 percent from this measure, especially since the source of those remaining emissions should dictate the implementing actions the County takes. It would be far less costly and more effective to invest resources in addressing orphaned wells if those are the source of remaining emissions than it would be to devise and implement a carbon removal strategy.

B. The County Must Phase Out Power Plants And Accelerate Its Targets For Clean Electricity And Distributed Generation.

As noted above and consistent with climate science and equity, California must transition off fossil fuel electricity and to 100 percent renewable, just energy by 2030. To meet this target, the County must set more ambitious goals, including setting a schedule to phase out power plants and accelerate decarbonization efforts. The current Plan lacks a sufficient target for the electricity generation sector, focusing instead on consumer demand solutions.

1. The County Must Analyze the Phase Out of Power Plants.

After the Supreme Court’s disastrous decision limiting the authority of the U.S. Environmental Protection Agency to address the devastating impacts of power plant pollution, it is imperative that local jurisdictions take appropriate action to meet our climate and equity goals. (*West Virginia v. EPA*, No. 20-1530 (June 30, 2022).) This is particularly true for the County and the many power plants in its jurisdiction.

The Plan aims to align with other state and regional initiatives, specifically the implementation of Senate Bill (SB) 100. But SB 100’s 100 percent zero carbon target is limited to retail sales of electricity. This limitation means that power plants can technically meet the SB 100 target while still combusting fossil fuels or other feedstocks for end uses outside of retail sales, such as to meet transmission and distribution losses from the grid. (LA100, 2021). As a result, natural gas combustion could potentially amount to 10 to 15 percent of power generation. (*Id.*) In this regard, outside of the catch-all carbon removal strategy, the Plan lacks any measure to address the significant GHG and co-pollutant emissions from the power plant sector. Instead, the Plan proposes to decarbonize the electricity generation sector with utility scale solar, rooftop solar and other distributed energy resources (“DERs”), and demand response strategies. But it is silent on limiting electricity generation emissions. In conjunction with its proposed strategies, the County should also include a measure to limit and eventually phase out power plant pollution.

As detailed below, the County should revise its definition of zero carbon and include measures to phase out power plants. By prioritizing DERs, the County can cure the feasibility issues associated with utility-scale solar. In this way, the County can accelerate the Plan’s target for clean electricity generation and achieve zero combustion resources by 2030.

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2. The County Should Revise the Definition of Zero Carbon.

The Plan defines zero carbon as “energy resources that either qualify as “renewable” in the most recent Renewables Portfolio Standard (RPS) Eligibility Guidebook or generate zero GHG emissions on-site.” (Plan at 3-15). This is the same definition used by the State for SB 100, which omits lifecycle analyses. These categories are flawed for several reasons and using them will hinder progress toward the County’s carbon goals.

First, not all of these resources are, in fact, renewable or carbon-neutral. For instance, evidence shows that, like coal and oil, woody biomass – which is included in the RPS – is a carbon-burning form of energy production that emits carbon dioxide and contributes to the climate crisis. Biomass power plants are California’s dirtiest electricity source—releasing more carbon at the smokestack than coal. (Sterman et al. 2018). The average GHG emission rate for California’s current electricity portfolio is about 485 pounds carbon dioxide equivalent (CO₂e) per megawatt hour (MWh).² In 2018, woody biomass power plants in California emitted more than *seven times* that amount, averaging 3,500 pounds CO₂e per net MWh for non-cogeneration facilities.³

Second, automatic inclusion under these programs and definitions precludes an adequate environmental review of local impacts. In particular, the SB 100 analysis omits analysis of significant increases in local air and water pollution in and around mega-dairies from the production of biomethane from dairy waste feedstock. And in California, biomass power plants are among the worst emitters of particulate matter and NO_x. Certainly, the LA100 Study includes a No Biofuels scenario to address this concern, and the County should do the same, or otherwise disclose that its

² See CARB, California Greenhouse Gas Emissions for 2000 to 2018, Trends of Emissions and Other Indicators (2020 Edition) at Figure 9 (GHG Intensity of Electricity Generation); *see also* CARB, 2000-2018 Emissions Trends Report Data (2020 Edition) at Figure 9, showing the overall GHG Intensity of Electricity Generation in 2018 of 0.22 tons CO₂e per MWh, which is equal to 485 pounds per MWh. These calculations were based on the 2020 trends report, however the 2021 edition, California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators (July 28, 2021) (Figure 9) shows a similar number (0.21 tones CO₂e per MWh), https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf (data available for download at <https://ww2.arb.ca.gov/ghg-inventory-data>).

³ Total CO₂e emissions for each facility in 2018 come from California Air Resources Board Mandatory GHG Reporting Emissions data, available at CARB, *Mandatory GHG Reporting – Reported Emissions*, <https://ww2.arb.ca.gov/mrr-data> (last visited June 23, 2022). Data on net MWh produced by each facility in 2018 come from the Cal. Energy Comm’n, *California Biomass and Waste-To-Energy Statistics and Data*, https://ww2.energy.ca.gov/almanac/renewables_data/biomass/index cms.php (last visited June 23, 2022). Total CO₂e produced by the nine electricity only, non-cogeneration active woody biomass facilities with available data totaled 2,127,693 metric tons, and net MWh in 2018 from these nine facilities totaled 1,334,346 MWh, for an average of 1.59 metric tons CO₂e per net MWh, equal to 3,515 pounds CO₂e per net MWh. The average of 3,515 pounds CO₂e per MWh includes electricity-only plants; cogeneration plants are excluded because some of their CO₂ emissions are from heat-related fuel consumption. The high CO₂e rate-per-MWh is similar for biomass facilities without cogeneration.

electricity generation measures implicate increased and unjust mega-dairy practices, including increased groundwater and air pollution in the Central Valley.

In response to these concerns, the Joint Agencies (the CEC, CPUC and Air Resources Board, “CARB”) developed a “No Combustion scenario.” The County should replace its zero carbon definition with the definition of No Combustion, which excludes combustion technology, combustion turbines, combined cycle, combined heat and power, and biomass. (Joint Agencies 2021).

3. The County Should Achieve a “High DER” Future.

The Center appreciates the County’s identification of the many benefits of DERs, including community ownership, wildfire mitigation, reducing peak energy demand, resiliency and eliminating the need for the construction of new generation facilities. (Plan at 3-11). There are other benefits to DERs, especially to disadvantaged communities. To maximize these benefits, the County should prioritize the deployment of DERs, versus placing too great a reliance on utility-scale solar measures.

The 2021 Joint Agency Report analysis, implementing SB 100, concluded it is possible to eliminate all combustion resources by 2045. (Joint Agencies 2021). That analysis, however, did not include DERs. As detailed below, DERs are an integral component to meet our climate and equity goals and can theoretically generate enough power to meet U.S. electricity needs multiple times over. (National Renewable Energy Laboratory, 2012). DERs also present significant benefits, can center equity and minimize impacts to biodiversity and habitats. The California Energy Commission (“CEC”) recently initiated a rulemaking to examine how California can achieve a “High DER” future. (CEC 2022). In that rulemaking, the CEC is exploring “issues related to the operation and performance of a mature high-DER electricity system in California, as well as near-term issues that must be addressed along the path to the future system,” specifically to “optimize DER benefits and value in support of advancing state goals for decarbonization, resilience, affordability, and environmental justice and equity. (*Id.* at 3-4). Similarly, the Public Utilities Commission (“CPUC”) also “anticipates a high-penetration DER future and seeks to determine how to optimize the integration of millions of DERs within the distribution grid while ensuring affordable rates.” (CPUC 2021). The Plan should match the State’s ambition for DERs.

(i) *The County Should Revisit its Over-Reliance on Utility-Scale Solar.*

Although the County proposes to decarbonize the electricity system through all three strategies of utility-scale solar, rooftop solar and other DERs, and demand response, the Plan measures place a tremendous reliance on utility-scale programs, limiting the ambition for alternative generation options through DERs. Measure ES2 seeks 100 percent municipal participation (by 2025) and 96 percent community participation (by 2030) in either Southern California Edison’s (SCE’s) Green Rate or the Clean Power Alliance’s (“CPA”) Green Power programs. (Plan, Appendix E at E-3). By contrast, the targets for rooftop solar are far less ambitious. For instance, the Plan proposes a mere five percent growth in rooftop solar on existing multifamily residential and commercial buildings by 2030. Including more aggressive targets, especially for new construction of multifamily residential buildings, will allow low-income renters

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to leverage other programs with associated benefits, including the Solar on Multifamily Affordable Housing and Virtual Net Energy Metering programs.

The Plan must recognize the difference between “community solar” through the Green Rate and Green Power programs and actual solar *in* the community, which drives realization of the several community benefits detailed below. Neither SCE nor CPA’s solar options are located “in the community,” or close to customer demand, but instead require generation from large facilities far away from demand. For example, CPA’s clean energy would not be generated in certain communities, areas, or even Los Angeles County: “[a]lmost all this energy will come from wind and solar farms in California with a little bit coming from other western states and a little coming from geothermal and small hydroelectric.” (DEIR at 3.1-13). Due to the distance of these facilities from County residents, these solar farms require substantial transmission infrastructure, with associated line losses, land use and affordability impacts that DERs avoid.

(ii) *DERs Present Several Benefits to Achieve our Climate and Equity Goals.*

Utility-scale solutions will simply not meet our climate and equity goals. 100 percent clean electricity requires serving the County’s hardest to reach residents where affordability is paramount. (CEC 2016). Achieving affordable electricity bills is critical to decarbonizing our electricity systems, and DERs present several benefits to ratepayers that utility-scale solutions cannot achieve. For instance, adequate deployment of rooftop solar displaces the need for significant transmission and distribution costs that would traditionally be passed on to ratepayers. In 2018 alone, the California Independent Systems Operator, citing increased rooftop solar and energy efficiency, canceled 20 transmission projects at a \$2.6 billion savings to all ratepayers. Growing local solar and storage would save California ratepayers \$4 billion a year, adding up to \$120 billion over the next 30 years. (Vibrant Clean Energy 2021). Similarly, eliminating the need for additional transmission also eliminates the need for utility-caused and expensive wildfire mitigation, such as the costs for undergrounding of transmission lines and associated power shutoffs. DERs also present local economic benefits, including but not limited to local clean energy installation jobs, which are more numerous than utility-scale clean energy jobs. (Wesoff and Olano 2022).

DERs can also cure feasibility issues raised by utility-scale solar. The Joint Agency SB 100 Report, which does not include DERs, shows that we need to build 2.8 GW/year of large-scale solar, every year for 25 years, along with 1.1 GW of consumer solar. However, our average build rate of large-scale solar has to-date been 1.0 GW/year. It is unclear if 2.8 GW/year is possible or affordable. Certainly, SCE’s Green Rate program has suspended “all enrollments” for its 50 percent and 100 percent options, due to the need to construct additional utility-scale generation. A more robust deployment of DERs would eliminate this need for additional construction and generation potentially hundreds of miles away from demand.

Adequate deployment of rooftop solar can also minimize the need for the estimated million acres of land to meet the SB 100 core scenario’s proposal for utility-scale solar, upon which the Plan places most of its reliance. Utility-scale solar presents significant land use impacts to biodiversity, species and habitats and eliminates opportunities for natural carbon sinks. (Butt et al. 2013; Brittingham et al. 2014; Pickell et al. 2014; Souther et al. 2014; Allred et al. 2015; B. Harfoot

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et al. 2018). It is simply not feasible to place such reliance on utility-scale solar to meet our climate goals. Backlogs in interconnection queues for utility-scale resources, compounded by the time necessary to plan and build transmission creates a bottleneck preventing necessary buildout by 2030, the critical decade for GHG reduction.

The County should revise the Plan to include more aggressive targets for DER adoption, especially as SCE does not currently have the generation capacity for its utility-scale program. The County should instead take this opportunity to use the Plan to send the appropriate market signals to accelerate DER development to the benefit of the County, especially its historically marginalized residents.

(iii) *The County Should Implement DERs “From the Ground Up.”*

Certain portions of the electricity grid are in such disrepair, especially in low-income communities, that the only viable electrification and resilience solutions may be non-wire alternatives presented by DERs. (Brockway et al. 2021). As noted above, utility-scale solutions are not adequate, and the County should propose particularly ambitious efforts to meet the energy needs of the County’s disadvantaged communities.

At a recent joint CEC and CPUC workshop on achieving a High DER future, the two agencies committed to collaborating on community engagement efforts to determine how DERs could meet community-level needs, and thereby ensure that DAC residents are not left behind in a just and clean energy transition. The Center appreciates the County’s proposal to identify geographic opportunities to deploy DERs (Plan at 3-11, Action ES4-3), and encourages the County to include measures in the Plan to further coordinate with the CEC and CPUC to serve the hardest to reach residents and achieve more ambitious targets for DERs.

II. THE COUNTY SHOULD SET CLEAR AND MORE AMBITIOUS BENCHMARKS FOR ZERO EMISSIONS TRANSPORTATION.

The transportation sector accounts for over 50 percent of total LA County GHG emissions. (Plan at 2-2). It is therefore imperative that the County do everything in its power to reduce these emissions with clear, ambitious reductions targets. As described below, the County must do more to reduce vehicle miles travelled (VMTs) and tailpipe emissions (including from freight transport), and to increase public transit and deployment of and access to electric vehicles (EVs) and charging infrastructure.

A. Cars and Light Trucks

1. ZEV Sales Targets

Measure T-6 (Plan at 3-29, Appendix E at E-9) calls for sales of new light-duty ZEVs in the County to be 60 percent by 2030 and 100 percent by 2035. Yet the Advanced Clean Cars II rule (“ACC II”), currently being finalized by the Air Resources Board, calls for *68 percent EV sales by 2030*. The County’s current plan is less than what ACC II calls for statewide. (CARB, ACC II 2022). This mismatch is unwarranted: in fact, LA County should be *leading* the ZEV transition and setting targets that are well ahead of ACC II. The County is one of the centers of EV adoption in the

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state. Between 2010 and 2019, 46 percent of all EV and hybrid rebates in California were from Southern California—more than the Bay Area (35.4 percent) and the rest of the state (18.6 percent). (LACEDC 2020, p. 29). Of the Southern California share, 56.8 percent of rebates came from the County, the largest share by far of all counties in the region. The achievement of California’s EV targets in ACC II will be called into question if one of the top counties in the state does not even attempt to keep pace with statewide targets.

Instead, the County should set an ambitious EV sales target and reach 100 percent sales by 2030, not 2035. The average vehicle lifetime and the sheer number of internal combustion engine vehicles (ICEVs) that could be sold between 2030 and 2035 demonstrate the need to end gas-powered sales no later than 2030. A 2019 study found that if new vehicle technology is immediately adopted and incorporated into 100 percent of all new vehicle sales, in 20 years it would still only be present in 90 percent of the on-road vehicle fleet. (Keith et al. 2019, p. 2). This means that under a 2035 100 percent ZEV sale requirement, 10 percent of California’s fleet would still be ICEVs in 2055, continuing to emit carbon pollution and undermining the state’s emission targets. That portion is highly significant: it means that roughly two million additional gas-powered cars would be sold between 2030 and 2034, emitting an estimated 69M MTCO_{2e} over their lifetimes. (Fleming 2020 and Data Analysis).

The 2030 100 percent ZEV mandate is feasible. According to some estimates, cost parity between ICEVs and ZEVs has already been reached without the use of incentives (see Lutsey & Nicholas 2019, p. 11; see also Taylor and Rosenberg 2022), and experts have concluded that ZEVs are already cheaper to own and maintain over their lifetimes. (Harto 2020). In fact, experts predict that ZEV sticker prices will match their ICEV counterparts as early as 2023 to 2025, primarily due to declining battery costs. (Gearino 2020). In light of these facts, it is clear that delaying 100 percent sales until 2035 is unnecessary and risks bringing warming above 1.5°C.

Finally, even if LA County ignores the clear imperative for 100 percent sales by 2030, it should raise its interim 2030 target well above the current 60 percent goal. Even a commitment to reach 80 percent in 2030 would be a vast improvement and bring us closer to carbon neutrality. The target should be frontloaded to secure maximum carbon reductions earlier: if fewer ICE cars are made and sold during the earlier years, there will be fewer emissions from these vehicles over their lifetimes. An earlier interim target also sends a clear message to industry that it must rapidly shift its investment and capacity to producing EVs.

2. EV Charging Stations

The Plan would “[r]equire all new development to install electric vehicle charging stations (“EVCSs”) through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces.” In addition to these policies, the County should follow the efforts set out in proposed SB 1482 for residential parking, which requires newly constructed multifamily residences in California to have electric vehicle charging access for every unit that has access to a parking space. (SB 1482, Allen 2022). This provision would result in little additional cost for builders while addressing equity for multi-unit dwelling residents.

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The Plan would also “[i]ninstall EVCSs at existing buildings and right-of-way infrastructure (e.g., lamp poles) throughout unincorporated Los Angeles County.” There is no explicit mention of “existing buildings” extending to existing *residential* buildings. Requirements must be set for installing charging at *existing* multi-unit dwellings in addition to new construction.

The Plan also fails to set clear targets regarding the number of EV chargers it had pledged in previous years. The 2019 LA County Sustainability Plan aimed to reach 60,000 new public EV charging stations by 2025, and an additional 70,000 by 2035. (Los Angeles Countywide Sustainability Plan, 2019 at 112). Yet the Plan does not contain definite goals for charging stations.

Other analyses have shown that the County’s needs will be much higher than even the goals in the 2019 Sustainability Plan. For example, according to the International Council on Clean Transportation (ICCT), the *City* of Los Angeles alone would need approximately 50,000 public chargers by 2030 to reach 100 percent EV sales by 2030. (Bui et al. 2021, p. 9). The County’s needs would be of course much higher. Another ICCT report found that the Los Angeles Metropolitan Area will need 176,672 non-home chargers by 2030—far more than even the Sustainability Plan called for. (Bauer et al. 2021, Table A-2). The lack of definite charging station goals in the Plan is troubling enough; the scale of the County’s charging needs demands a detailed plan for building the infrastructure for a fast, equitable transition to ZEVs.

The studies also confirm that the County could implement complementary policies that would reduce the overall need for charging stations. Given the scale of charging infrastructure needed, the County should consider the following ideas, with particular attention to how they would impact the County’s focus on equity programs:

- EV-ready building codes
- Prioritized EV-ready zoning
- Preferential EV parking
- Waiving parking fees for EVs at county-owned locations (Bui et al. 2021)
- Enforcing penalties for combustion cars using EV spaces
- Congesting pricing
- Prioritizing VMT reduction

These complementary policies can significantly reduce the County’s EV charging needs. One study found that in San Francisco, a combination of these policies would reduce charging station needs by 45 percent by 2030. (Hsu et al. 2020, p. 19). Another study found that a combination of these policies could reduce the demand for new chargers in the LA metropolitan area from nearly 50,000 to 27,300 by 2030. (Bui et al. 2021, p. 9).

3. County Fleet Vehicles

The Plan also calls for electrifying the vehicles in the County light-duty fleet: to 35 percent by 2030, 60 percent by 2035, and 100 percent by 2045. (Plan at 3-29, Appx. E, T7.2). Yet these goals lag behind even the goal President Biden set for federal fleets: that light-duty acquisitions would be 100 percent ZEV by 2027. (White House 2021). While the LA County fleet is not covered

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by President Biden’s Executive Order, the Plan surely betrays its spirit. There is no reason why the County should achieve its ZEV transition years slower than the federal government.

Additionally, the County should include *procurement* dates as well as target dates for when the percentage of the fleet should be zero emissions, as the federal executive order does. It is not clear when the County is going to start purchasing 100 percent ZEVs for its own fleets in order to reach the penetration goals. This information is crucial to understanding how the County plans to meet its goals. Procurement of 100 percent ZEVs should start immediately for light-duty vehicles.

B. Freight and Warehouses

The County should strengthen its performance objectives to advance the phase out of new combustion medium and heavy-duty vehicle (MD/HDV) sales to 2035, which is consistent with CARB’s Mobile Source Strategy (CARB 2021, Mobile Source Strategy, p. 68), with higher penetration of ZEV MD/HDVs earlier than the objectives provided. Heavy duty trucks contribute disproportionately to air pollution and harm to disadvantaged communities. (Brown et al. 2021).

A recent Department of Energy study from the National Renewable Energy Laboratory has found that nationwide: “ZEV sales could reach 42 percent of all MD/HD trucks by 2030, reflecting lower combined vehicle purchase and operating costs (using real-world payback periods)” (Ledna et al. 2022). The study’s findings suggest that “by 2030, nearly half of medium- and heavy-duty trucks will be cheaper to buy, operate, and maintain as zero emissions vehicles than traditional diesel-powered combustion engine vehicles.” (U.S. Dept. of Energy 2022). If this degree of cost parity is achievable across the United States by 2030, then there may be greater adoption of ZEV HDVs by 2030 than the County assumes.

The County can help this process by accelerating the implementing actions. For instance, the Plan does not propose to begin implementing freight decarbonization technologies along highway corridors (Appx. E, T8.1) for another 3 years. The County should start implementing these immediately. Similarly, we hope the County will begin the process of streamlining permitting for ZEV MD/HDV charging infrastructure immediately.

The Center appreciates the effort to create an ordinance for all new and existing warehouses to include EVCS (Appx. E, T8.2, T8.3). However, the deadline of 2035 for existing warehouses could be accelerated. Warehouse and logistics development is a well-documented source of greenhouse gas emissions and air quality degradation that can create serious, negative health outcomes for surrounding communities. (Betancourt and Villianatos 2012). Particulate emissions from diesel vehicles contribute to “cardiovascular problems, cancer, asthma, decreased lung function and capacity, reproductive health problems, and premature death. (*Id.* at 5.) With the rapid increase in global trade, the Ports of LA and Long Beach have become a primary entryway for goods, processing over 40 percent of all imports into the United States, and accounting for 20 percent of diesel particulate pollutants in southern California—more than from any other source. (Minkler et al. 2012). These goods are “transloaded” before leaving Southern California, meaning that they spend some time in warehouse storage facilities before they reach their final destination. (Betancourt and Villianatos 2012). This has resulted in a massive, unchecked expansion of warehouse development throughout Southern California, creating a logistics hub so massive that it is now visible from space. (Ragen 2022). This growth continues unchecked and is now bleeding

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into open space areas in Coachella Valley and elsewhere, choking airways and driving habitat loss. The Plan makes little mention of the supply chain/logistics industry, which drives these impacts. The County must coordinate with regional planning and transportation agencies to ensure that the logistics industry is planned with intention, away from existing residential communities, and that the attendant environmental impacts are limited to the extent feasible.

C. Green Hydrogen

The Plan proposes to “[i]ncrease the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a ‘bridge fuel’ to achieve 100 percent green hydrogen and electric vehicles.” (Plan at 3-29). First, biomethane and biogas should not be used as bridge fuels, including as a hydrogen source. Reliance on biomethane and biogas props up the fossil fuel industry as it allows gas companies to maintain their pipeline infrastructure. Relying on wood biomass or forestry residues could promote forest logging, hence destroying a significant carbon sink, as explained in Section V, *infra*. Further, sources of biogas and biomethane, such as animal manure, promote expansion and consolidation of the animal agriculture industry, resulting in more air and water pollution. (Sadaat and Gersen 2021).

Second, green hydrogen, as in electrolytic hydrogen produced by splitting water solely using clean, renewable solar and wind energy, is not a workable solution for decarbonizing our transportation systems and buildings since electrifying these sectors and running them directly on a clean, renewable energy grid is the most efficient, cost-effective solution. Green hydrogen, limited to electrolytic hydrogen produced from renewables (Sadaat and Gersen 2021), could be part of an interim solution to decarbonizing difficult to decarbonize sectors such as aviation and maritime shipping, at least until the point of electrification. However, current evidence points to efforts to scale up hydrogen production, but not necessarily “green” hydrogen production. Currently, 95 percent of hydrogen produced in the United States is made from fossil gas (“grey” hydrogen), emitting substantial climate and air pollution. Fossil fuel companies have expressed interest in hydrogen, marketing the benefits of green hydrogen, but explicitly advocate for all forms of hydrogen production. For instance, their claims of being able to repurpose gas pipeline infrastructure for hydrogen obfuscate the fact that hydrogen is incompatible with current infrastructure and can only be transported as a blend with fossil gas, and only in a relatively small proportion. Promoting hydrogen has become a tool of fossil fuel companies to both prolong the production of fossil gas and the need for fossil gas infrastructure. Until this changes, and clear signs point to clean electrolytic hydrogen being promoted for commercial scale production, hydrogen is a false solution that best serves fossil fuel interests.

III. THE COUNTY SHOULD SET CLEAR AND MORE AMBITIOUS BENCHMARKS FOR BUILDING ELECTRIFICATION.

Natural gas use in buildings is a primary driver of GHG emissions in the unincorporated areas of the County. (Plan at ES-2; Aas 2020). Consequently, the County identifies building electrification as a necessary “core measure” to achieve its 2030 and 2035 greenhouse gas reduction targets. (Plan at 3-4, 3-5). While its goals are lofty, the Plan fails to set ambitious targets or identify the resources necessary to achieve rapid electrification. Absent such benchmarks, the Plan risks locking-in carbon intensive options for several decades.

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The Plan envisions that all buildings will be zero net energy (ZNE) by 2045.⁴ Yet its own benchmarks get the County nowhere close to that goal. The Plan proposes requiring all new residential buildings to be ZNE by 2025 and all new nonresidential to be ZNE by 2030. (Plan at 3-38). Given the urgency of the climate crisis and the long lifespan of buildings, there is no justification to wait any longer to require new construction to be ZNE, no less the additional decade proposed for nonresidential construction. Fifty-two cities and counties throughout the state — such as the City of Los Angeles, Berkeley, San Francisco, San Jose and Oakland — have already taken these clear-cut steps to prohibit natural gas infrastructure and make electric appliances standard, thereby demonstrating the feasibility of such action. (Rachal 2021). If building electrification is delayed any further, the County will miss the lower-cost opportunities for all-electric new construction, and instead further entrench itself in the cost of expensive early retirement of equipment—a hole it already is trying to dig itself out of through investment in electrifying existing building stock. Requiring ZNE for new construction is available low-hanging fruit. Without embracing such obvious measures, the County risks missing its climate goals altogether.

For one, the County’s goal hardly aligns with its most recent actions on building electrification. Earlier this year, on March 15, 2022, the County Board of Supervisors unanimously moved to instruct the Director of Public Works to assess feasibility of ZNE and make recommendations for an ordinance or building code to phase out the use of natural gas equipment and appliances in all new residential and commercial construction, where feasible, starting in 2023. (Los Angeles Board of Supervisors 2022). At minimum, the Plan should align with these timelines that the County has already established.

The Proposed Plan must also speed up its timeline to transform existing building stock. Most of the buildings that will be standing in 2050 have already been built. (IPCC 2014). Consistent with statewide goals on ZNE buildings (CPUC 2022), the Draft EIR and Plan should include plans, incentives, and programs to retrofit at least 50 percent of commercial buildings to ZNE by 2030. The Plan notes the extensive investment needed to electrify existing buildings but appears to lack identified funding sources to carry out electrification. The Final EIR and Plan should include evidence describing how the County will include sufficient funding and staff to carry out the programs and mitigation strategies identified. (*See, e.g., Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116-1118 [EIR invalid because agency offered no evidence that measures for reducing impacts would actually be effective]). Alternatively, if the County lacks funding sources to reach its goals, then the County must electrify where it can and require all new construction to be ZNE on a more accelerated timeline.

In short, the County must take a long-term view of its climate goals and evaluate the role of natural gas infrastructure in that future. A recent CEC report found that, under all the long-term GHG reduction scenarios, electrification of buildings “leads to lower energy bills for customers over the long term than the use of renewable natural gas.” (Aas 2020). Further, because the cost of decarbonizing natural gas with renewable natural gas is more expensive than electrification, building electrification now lowers the total societal cost of meeting California’s climate goals. (*Ibid.*)

⁴ A ZNE building is defined as one that is energy-efficient and consumes energy less than or equal to the on-site renewable generated energy. (DEIR at ES-50).

IV. THE PLAN MUST LOOK BEYOND TREES AND AGRICULTURAL TO MEET CARBON SEQUESTRATION GOALS.

The Center is encouraged to see the Plan includes strategies to conserve forests and working lands (Strategy 9) and sequester carbon and implement sustainable agriculture (Strategy 10). However, the “focus on conservation and restoration of existing forest lands and urban forests to sequester carbon and support local ecosystems” (Plan at 3-49) ignores a vital opportunity to conserve valuable carbon-sequestering, biodiversity-supporting, climate change-resilient non-forest habitats like shrublands, grasslands, deserts, and wetlands while overvaluing agricultural practices. A broader, more comprehensive approach to combatting climate change that expands focused conservation action to non-forest habitats would demonstrate the County is truly “committed to adapting its programs and services to reduce the unincorporated County areas’ greenhouse gas (GHG) emissions and help limit global temperature increases.” (Plan at ES-1).

The goals of the carbon sequestration strategies, measures, and implementing actions must be bolder and prioritize the conservation and management of existing intact, connected habitats. To better reflect the priorities and more ambitious goals required to effectively implement native-based solutions to reduce carbon emissions, store more carbon, and combat climate change, the following revisions are recommended:

Sector: **Wildlands Conservation and Restoration**, Agriculture, ~~Forestry~~, and Other Land Use (A)

Strategy 9: Conserve ~~Forests~~ and Restore Intact, Connected Wildlands and Working Lands

Measure A1: Conserve and Restore Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands ~~Agricultural~~ and Working Lands, ~~Forest Lands, and Wildlands~~

Implementing Action A1.1: Develop an open space conservation and land acquisition strategy **that prioritizes wildlife connectivity** to conserve and restore native habitats ~~lands~~ for carbon sequestration.

A. Non-forest habitats are important for carbon storage, sequestration, and other co-benefits like biodiversity support and climate change resilience.

Scientists point to nature as an effective and efficient tool to help limit warming by keeping carbon sequestered and removing carbon from the atmosphere. (Fargione et al. 2018; Yang et al. 2019). Efforts to sequester carbon have largely been focused on protecting and planting more trees because forests store the largest percentage of carbon compared to other terrestrial ecosystems. (Ahlström et al. 2015). However, the scale of the impacts of climate change requires more thoughtful and ambitious actions beyond trees that 1) account for carbon emissions when non-forest habitats are destroyed and 2) proactively preserve and restore non-forest carbon-sequestering habitats, including but not limited to shrublands, grasslands, and deserts, to complement forest and tree protections.

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California's shrubland, grassland, and desert ecosystems are undervalued despite being significant carbon sinks. (Bohlman et al. 2018; Dass et al. 2018; Janzen 2004; Luo et al. 2007; Wohlfahrt et al. 2008). With much of the stored carbon located in their roots and soils, there is potential for long-term storage that could be resilient to changing environmental conditions. (Aranjuelo et al. 2011; Booker et al. 2013; Evans et al. 2014; Vicente-Serrano et al. 2013; White et al. 2000). These habitats have evolved with warm, dry, water- and nutrient-limited environments, which may make them more adaptable and resilient to climate change compared to tropical and temperate forests. (Luo et al. 2007; Rao et al. 2011; Thomey et al. 2014; Vicente-Serrano et al. 2013). Yet shrublands, grasslands, and deserts are often excluded from carbon calculations and neglected as important carbon sinks and biodiversity hotspots.

With climate change progressing and biodiversity losses continuing, targeting forest and non-forest habitats to capture carbon and protect biodiversity is an elegant and effective strategy to achieve desperately needed gains in both areas. The County has a key forward-looking opportunity here to enact climate policy to protect such habitats. (Maxwell et al. 2020; Dinerstein et al. 2020; Soto-Navarro et al. 2020).

1. Trees and forests

The capacity of trees and forests to sequester carbon is waning, and they are not immune to the impacts of climate change. (Cabon et al. 2022; Green & Keenan 2022). In fact, climate change is already affecting the ability of forests and trees to store carbon. Higher temperatures and increased drought are killing trees (C. D. Allen et al. 2010, 2015; Anderegg et al. 2015; Diffenbaugh et al. 2015; McDowell & Allen 2015; Stevens-Rumann et al. 2018; Sullivan et al. 2020), and scientists predicted that U.S. forests will be increasingly vulnerable to fire-, drought-, and insect-driven mortalities as climate change intensifies. (Anderegg et al. 2022).

In addition, there is evidence in high elevation forests that increased atmospheric carbon is leading to shorter carbon residence time, with trees growing faster and dying more quickly. (Büntgen et al. 2019). Elevated atmospheric carbon is also leading to reduced carbon sequestration in European forest soils, likely due to increased microbial respiration. (Heath et al. 2005). This perpetuates a dangerous feedback loop with more carbon in the atmosphere driving hotter and drier conditions that lead to more carbon release. There is some leeway for tropical forests to offset some impacts of climate change; however, their carbon storage capability could rapidly deteriorate if global surface temperatures increase by more than 2°C of pre-industrial levels (Sullivan et al. 2020).

Land-use planners must urgently look to additional measures that reduce emissions and store carbon to supplement the capacity of trees and forests and increase our chances of effectively combatting climate change. For example, habitats in semi-arid and arid regions, such as shrublands and deserts, have been found to store significant amounts of carbon while being more resilient to drought and increased atmospheric carbon. (Aranjuelo et al. 2011; Evans et al. 2014; Luo et al. 2007). Notably, these habitats support high levels of biodiversity and endemism. They could play a significant role in in combatting climate change and bringing the state closer to its commitment to conserve at least 30 percent of its lands and coastal waters by 2030 under Executive Order N-82-20.

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2. Shrublands

Shrublands in Mediterranean climates, such as vegetation communities dominated by chaparral and coastal sage scrub, have been found to store a significant amount of carbon in their aboveground biomass under normal weather conditions. (Bohlman et al. 2018; Fusco et al. 2019; Gratani et al. 2013; Luo et al. 2007). In a review conducted by Bohlman et al. (2018), above-ground biomass of shrub communities was found to be as high as 3461 g/m², with the amount of carbon stored increasing with the age of the stand. Although below-ground biomass is rarely measured or calculated, some shrubland species have been found to have 41 to 47 percent of their biomass below the surface (Bohlman et al. 2018), and chaparral roots have been found four meters (>13 feet) deep in weathered bedrock. (Sternberg et al. 1996).

This suggests that a substantial amount of carbon may be stored belowground in these habitats, not just in their roots, but also in the microbial communities and mycorrhizal fungi that work in concert with root systems to trap carbon in biomass and soil pores and suppress decomposition of humic substances. (Kravchenko et al. 2019; Soudzilovskaia et al. 2019). Intact shrublands with more diverse plant communities have been found to stimulate the formation of soil pores that support optimal microbial functioning and carbon accrual. (Kravchenko et al. 2019). And increased root surface area supports more mycorrhizae that aid in nutrient uptake and facilitate carbon flow and soil carbon accumulation. (Finlay 2008; Orwin et al. 2011; Soudzilovskaia et al. 2019). In addition, semi-arid shrublands have been found to drive the trend and interannual variation of the global carbon cycle. (Ahlström et al. 2015; Poulter et al. 2014). Thus, shrublands should be recognized for their carbon storage potential and included in carbon calculations.

Unlike forests and trees in tropical and temperate regions, Mediterranean shrublands and desert ecosystems are adapted to hot and dry weather conditions and have been found to be resilient to drought. (Luo et al. 2007; Vicente-Serrano et al. 2013). However, during drought the carbon sequestration capacity of Mediterranean shrublands has been observed to decrease. (Gratani et al. 2013) and can even become a carbon source (Luo et al. 2007). Interestingly, elevated atmospheric carbon dioxide levels have been shown to enhance photosynthesis and above-ground production and increase below-ground carbon pools in chaparral and desert ecosystems by stimulating root and mycorrhizal growth. (Evans et al. 2014; Lipson et al. 2005; Thomey et al. 2014; Treseder et al. 2003). However, above-ground gains were only observed in years with above-average rainfall; it is possible that gains in carbon storage could be offset by increased decomposition activity and/or respiration by soil microbes and mycorrhizae during warmer and drier conditions. (León-Sánchez et al. 2018; Lipson et al. 2005; Thomey et al. 2014). Although future impacts of climate change are uncertain, the carbon storage capacity and potential resilience to climate change of shrublands and desert ecosystems demand attention.

The removal and degradation of shrubland ecosystems have been found to result in the loss of both above- and below-ground carbon storage (*e.g.*, Austreng 2012). Given the potential of California shrublands to store a significant amount of carbon, their extensive distribution, and their potential resilience to changing environmental conditions, these ecosystems warrant more consideration and protections in the fight against climate change.

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3. Grasslands

Grasslands cover about 10 percent of California’s land area. (Eviner 2016). Although they are mostly dominated by non-native plant species, they continue to be biodiversity hotspots that support almost 90 percent of state-listed rare and endangered species and 75 federally listed plants and animals. (Eviner 2016). Their above-ground biomass may not be as impressive as forests or shrublands, but there is significant potential for carbon storage in their roots and soils (Germino et al. 2019; Kravchenko et al. 2019; Silver et al. 2010; Soudzilovskaia et al. 2019; Yang et al. 2019). Although it depends on the species and ecological region, native grasslands have been found to have 75-93 percent of their biomass below-ground. (Paruelo et al. 2010; Yang et al. 2019). Studies have found that native grasses store more carbon than non-native grasses. (Koteen et al. 2011; Yang et al. 2019), and grasslands with higher plant diversity facilitate greater soil carbon storage. (Chen et al. 2018; Fornara & Tilman 2008; Isbell et al. 2011; Kravchenko et al. 2019; Lange et al. 2015; Yang et al. 2019; Zavaleta et al. 2010) and are likely more resilient to climate change. (Craine et al. 2013; Dass et al. 2018; Vicente-Serrano et al. 2013).

Like California shrublands, grasslands in semi-arid regions have an adaptive capacity to drought and wildfire. Multiple studies suggest that diverse grasslands can adjust to increased drought. (Craine et al. 2013; Dass et al. 2018; Vicente-Serrano et al. 2013), perhaps through the local expansion of drought-tolerant species. (Craine et al. 2013). When fires burn through California grasslands, the grasslands release less carbon than woody habitats because most of the carbon they store is underground, and they recover relatively quickly. (Dass et al. 2018; Donovan et al. 2020). In fact, one study found that California grasslands may be a more reliable carbon sink than trees and forests in the face of climate change, particularly if global warming exceeds 1.7°C above pre-industrial levels. (Dass et al. 2018). Evidence suggests that forest resilience to drought and wildfires is already declining under climate change, which further highlights the urgency of preserving and restoring remaining intact native grasslands and their biodiversity in addition to protecting forests and trees to improve our chances of limiting warming to 1.5°C and avoiding the most devastating impacts of climate change.

4. Deserts

Deserts, which can be dominated by shrubs like creosote bush but can also include forbs, trees, grasses, and dunes, have been found to be a substantial carbon sink. (Janzen 2004; Meyer 2012; Mi et al. 2008; Thomey et al. 2014; Y. Wang et al. 2010; Zamanian et al. 2016). Although aboveground productivity is relatively low, the majority of carbon is stored underground in soil organic carbon as extensive root networks, soil microbial communities, and mycorrhizae (Figure 2) as well as in soil inorganic carbon which can be stored as caliche (M. F. Allen & McHughen, 2011) but also deep soil organic carbon. (CCB 2022). Caliche is calcium carbonate (CaCO₃) that is formed when rainwater, soil carbon dioxide from soil and root microbes, and calcium react, and its stability depends on the vegetation present. Deep soil organic carbon is generally stored at depths from 30 centimeters to 1 meter where mineral interactions primarily determine the stability of stored carbon. (Jackson et al. 2017). No soil databases have data on carbon sequestration capacity of soils below 2 meters. (Jackson et al. 2017).

Although often overlooked, soil inorganic carbon in arid and semi-arid regions is estimated to sequester 800-1700 Pg of carbon globally, which is four to 8.5 times higher than the estimated 199 Pg of carbon in global soil organic carbon in these systems. (Thomey et al., 2014). Large stocks of soil inorganic carbon are mostly found in regions with low water availability (*i.e.*, areas with mean annual precipitation < 250 mm). (Zamanian et al., 2016), with deserts having the greatest densities of soil inorganic carbon compared to other ecosystems. (Mi et al., 2008; Y. Wang et al., 2010). Soil inorganic carbon and deep soil organic carbon are very stable forms of stored carbon, and they dominate the carbon sink in deserts. (Meyer, 2012; Thomey et al., 2014). This highlights the untapped carbon sequestration potential of California’s deserts and the need to protect these landscapes from development and degradation.

B. The Plan’s conservation forward language is not backed up by its implementing actions

The Plan mentions a 2045 vision is to “achieve a net gain in carbon storage in the County’s wildlands and working lands through management and restoration” and acknowledges that “[f]orests, chaparral shrublands, and wetlands serve as carbon sinks that can sequester carbon dioxide” and “[w]hen these natural and working lands are converted to residential and other urbanized uses, that stored carbon dioxide is released into the atmosphere.” (Plan at 3-50). Yet according to the Plan’s performance objectives and tracking metrics for implementing action A1.1 to “[d]evelop an open space conservation and land acquisition strategy to conserve lands for carbon sequestration” (Plan at 3-51), the Plan only looks to conserving and restoring natural forest land. (Appendix E at E-16). Not only are non-forest habitats excluded from the Plan, but other important factors that enhance carbon storage and carbon sequestration potential, like prioritizing habitat connectivity and strategically restoring degraded habitats and fallowed agriculture lands, are omitted. The Plan needs to be amended to include the conservation and restoration of other habitats, including but not limited to shrublands, grasslands, wetlands, and deserts, with connectivity as an explicit priority.

When implementing habitat conservation for ecosystem service purposes like carbon sequestration and storage, it is important to take into account that optimal ecosystem services are the result of the functional integrity of healthy ecosystems. There is overwhelming evidence that edge effects from human disturbance like roads and development (including agriculture) impact plants and wildlife and degrade ecosystems. (see Yap et al., 2021a). Negative effects of human disturbance influence important ecosystem dynamics like food webs, nutrient cycling, pollination, and community structure, which, in turn, can disrupt carbon sequestration and storage. (Sobral et al. 2017; Watson et al. 2018). Therefore, prioritizing the preservation of contiguous heterogeneous habitats will benefit biodiversity, which will help improve chances of maintaining ecosystem health and carbon sequestration and storage capacity. The Plan should incorporate connectivity to optimize carbon storage sequestration.

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V. THE PLAN SHOULD PRIORITIZE AVOIDING DEVELOPMENT IN HIGH FIRE-PRONE AREAS AND USE SCIENCE-BASED ACTIONS TO REDUCE WILDFIRE RISK AND PROTECT CARBON-STORING HABITATS.

Wildfires due to lightning strikes and Indigenous cultural burning have occurred on California’s landscapes for millennia. They are a natural and necessary process for many of California’s ecosystems. But some of the recent fires have been exceptionally harmful to human communities and ecosystems. In the past 200 years since European colonization, forced relocation and cultural genocide of Native Tribes, fire suppression and poor land management, and poor land-use planning has shifted historical fire regimes throughout the heterogeneous ecosystems of the state. In addition, hotter, drier, and more extreme weather conditions due to climate change make the landscape more conducive to wildfire ignitions and spread. Almost all (95-97 percent) contemporary wildfires have been caused by humans and/or human infrastructure (Balch et al. 2017). Therefore, careful and comprehensive analyses of the area’s fire history, the various ecosystems’ fire ecology, and potential mitigation measures and management strategies to reduce risk of ignition and fire within the County is required. Reliance on a vegetation management plan that bulldozes sensitive ecosystems that could destroy valuable carbon-sequestering, biodiversity-supporting habitat while actually increasing wildfire risk is not only irresponsible, it is negligent. If the County is serious about reducing wildfire risk and protecting carbon-storing habitats, the Plan must include science-based actions and management.

Here are recommended revisions for Implementing Action A1.2:

~~Limit development in high fire-prone areas and~~ **Employ ecosystem-appropriate** vegetation management of wildlands to reduce **unintended human ignitions and wildfire risk** ~~and prevent carbon loss in forest lands.~~

A. The Plan must address the role of poorly planned development to reduce wildfire risk.

The Plan fails to acknowledge and discuss that development and human infrastructure in high fire-prone areas increases the risk of igniting wildfires. As detailed in a 2021 Center Report (Yap et al. 2021b), development in highly fire-prone areas increases unintentional ignitions, places more people at risk (within and downwind of the Project area), and destroys native shrubland habitats that support high levels of biodiversity. Almost all contemporary wildfires in California (95-97 percent) are caused by humans in the wildland urban interface. (Balch et al. 2017; Radeloff et al. 2018; Syphard et al. 2007; Syphard & Keeley 2020). For example, the 2019 Kincade Fire, 2018 Camp and Woolsey fires, and 2017 Tubbs and Thomas fires were sparked by powerlines or electrical equipment. And although many of the 2020 fires were sparked by a lightning storm, the Apple Fire was caused by sparks from a vehicle, the El Dorado Fire was caused by pyrotechnics at a gender-reveal celebration, the Blue Ridge Fire was likely caused by a house fire, and electrical equipment is suspected to have ignited the Silverado and Zogg fires.

Recent wildfires have been exceptionally harmful to people. Between 2015 and 2020, almost 200 people in the state were killed in wildfires, more than 50,000 structures burned, hundreds of thousands of people had to evacuate their homes and endure power outages, and

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millions were exposed to unhealthy levels of smoke and air pollution. Human-caused wildfires at the urban wildland interface that burn through developments are becoming more common with housing and human infrastructure extending into fire-prone habitats, and homes and structures can add fuel to fires and increase spread. (Knapp et al., 2021). This is increasing the frequency and toxicity of emissions near communities in and downwind of the fires. Buildings and structures often contain plastic materials, metals, and various stored chemicals that release toxic chemicals when burned, such as pesticides, solvents, paints, and cleaning solutions. (Weinhold, 2011). This has been shown with the 2018 Camp Fire that burned 19,000 structures; the smoke caused dangerously high levels of air pollution in the Sacramento Valley and Bay Area and CARB found that high levels of heavy metals like lead and zinc traveled more than 150 miles. (CARB, 2021).

In addition, there are significant economic impacts of wildfires on residents throughout the state. One study estimated that wildfire damages from California wildfires in 2018 cost \$148.5 billion in capital losses, health costs related to air pollution exposure, and indirect losses due to broader economic disruption cascading along with regional and national supply chains (D. Wang et al., 2021). Meanwhile the cost of fire suppression and damages in areas managed by the California Department of Forestry and Fire (Cal Fire) has skyrocketed to more than \$23 billion during the 2015-2018 fire seasons.

New infrastructure in high fire-prone areas should be avoided. If unavoidable, mitigation measures should require structures to have ember-resistant vents, fire-resistant roofs, and irrigated defensible space immediately adjacent to structures. External sprinklers with an independent water source could reduce structures' flammability. Rooftop solar and clean energy microgrids could reduce fire risk from utilities' infrastructure during extreme weather. Transmission lines could be placed underground. In addition, education awareness for construction workers and operations/management employees should be provided and include how to reduce ignition risk. For example, smoking should be prohibited in the Project area, vehicles and electrical equipment that could create sparks need to be properly maintained, defensible space immediately adjacent to structures need to be maintained, etc.

B. The Plan must use the best available science to implement ecosystem-appropriate wildfire management strategies.

The Plan proposes a vegetation management plan to reduce wildfire risk and carbon loss from wildfire without providing sufficient detail regarding what such a plan would entail. "Vegetation management" often includes mechanical removal via logging of trees and/or bulldozing through shrubland, which can have devastating impacts on ecosystems and actually release more carbon than wildfires do. According to Appendix E, the County plans to manage 50,000 acres of wildlands by 2045 for "wildfire risk reduction and carbon stock savings" (Appendix E at E-18), but it is unclear what the management would entail and if wildfire management would include ecosystem-appropriate measures based on the best available science. It would be deeply concerning if the goal of the Plan is to thin and/or remove 50,000 acres of wildlands purportedly to reduce wildfire risk. In addition, monitoring and reporting of wildfire management activities should be required.

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Scientific studies showing that carbon emissions in California, and across the U.S., from tree harvest and thinning are much higher than the emissions from wildfire, bark beetles, or drought. Berner et al. (2017) reported that logging was the largest cause of tree mortality in California forests between 2003 and 2012, followed by wildfire and then bark beetles. Furthermore, Harris et al. (2016) reported that between 2006 and 2010 logging was responsible for 60 percent of the carbon losses from California’s forests, compared to 32 percent from wildfire. This is because wildfire consumes only a minor percentage of forest carbon while improving availability of key nutrients and stimulating rapid forest regeneration. When trees die from drought and native bark beetles, no carbon is consumed or emitted initially, and carbon emissions from decay are small and slow; meanwhile, decaying wood keeps forest soils productive and enhances carbon sequestration capacity over time. In contrast, logging and thinning results in a large net loss of forest carbon storage, and a substantial overall increase in carbon emissions that can take decades, if not a century, to recapture with regrowth. (Campbell et al. 2012; Holtsmark 2013; Hudiburg et al. 2011; Mitchell et al. 2012; Searchinger et al. 2009).

In addition, some studies indicate that forest thinning can increase fire severity by opening up the canopy, creating hotter and drier conditions and introducing invasive fire-prone grasses. For example, a study in southwestern Oregon forests by Zald and Dunn (2018) found that private industrial forests subjected to intensive harvest experienced higher wildfire severity than more intact forests with a greater proportion of older forest areas. The study suggested that “intensive plantation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity.” Similarly, Bradley et al. (2016) found that, across the western U.S., pine and mixed conifer forests with the lowest levels of protection from logging tend to burn more severely, while forests with the most protection from logging burned least severely even though they are generally identified as having the highest overall levels of biomass and fuel loading. (Bradley et al. 2016).

Similarly, the mechanical removal of shrubland habitat would destroy important habitat while perpetuating a negative feedback loop of more wildfire. Chaparral and coastal sage scrub are native California habitats that are adapted to infrequent (every 30 to 150 years), large, high-intensity crown fire regimes. (Keeley & Fotheringham, 2001). However, if these regimes are disrupted, the habitats become degraded. (Keeley 2005, 2006; Syphard et al. 2018). When fires or other types of disturbances (*i.e.*, land-clearing) occur too frequently, type conversion occurs and the native shrublands are replaced by non-native grasses and forbs that burn more frequently and more easily, ultimately eliminating native habitats and biodiversity while increasing fire threat over time. (Keeley 2005, 2006; Safford & Van de Water 2014; Syphard et al. 2009, 2018). Conversely, studies have shown that conservation purchases in areas designated as high fire hazard in Southern California, where chaparral and coastal sage scrub are most vulnerable to development, has led to biodiversity conservation and reduced wildfire risk. (Butsic et al. 2017; Syphard et al. 2016). Thus, the Plan must consider the impacts due to treatment activities on native shrublands when strategizing how to reduce wildfire risk.

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C. The County needs to make a concerted effort to incorporate traditional ecological knowledge into their wildfire management and climate change strategies.

Ramos (2022) states, “Indigenous communities have often been marginalized in the sciences through research approaches that are not inclusive of their cultures and histories.” Traditional ecological knowledge (TEK) is often excluded from analyses or distilled to conform to Western science. (Ramos 2022). Here, the Plan fails to acknowledge that Indigenous communities and cultural burning played a role in California’s historical fire activity. In fact, there is no mention at all of cultural burning or prescribed fire. This perpetuates the exclusion and marginalization of Indigenous communities and TEK. Consultation with local Native Tribes, and incorporation of Indigenous science, including but not limited to oral histories, ethnographies (that may include burn scars and charcoal records), and archeological data should be incorporated in fire history analysis and subsequent management. As a society, we need to work towards integrative research that “transcends disciplinary boundaries” and employs a range of methodological options to get a deeper understanding of the relationship between people and ecosystems. (Ramos 2022). Doing so will help inform fire management strategies and mitigation measures that work towards reducing harms of wildfire to people while facilitating beneficial fire for the appropriate ecosystems.

Indigenous communities should be more included in climate change and wildfire discourse. Native Americans were found to be six times more likely than other groups to live in high fire-prone areas, and high vulnerability due to socioeconomic barriers makes it more difficult for these communities to recover after a large wildfire. (Davies et al., 2018). In addition, farmworkers, who are majority people of color and often include migrant workers that come from Indigenous communities, often have less access to healthcare due to immigration or economic status. They are more vulnerable to the health impacts of poor air quality due to increased exposure to air pollution as they work. Yet farmworkers often have to continue working while fires burn, and smoke fills the air, or risk not getting paid. (Herrera 2018; Kardas-Nelson et al. 2020; Parshley 2018). Tribes should be included in the development and implementation of wildfire management plans.

VI. THE PLAN SHOULD FOCUS ON EMISSIONS REDUCTIONS AND NATURE-BASED CARBON SEQUESTRATION RATHER THAN RELY ON CARBON CAPTURE TO COVER RESIDUAL EMISSIONS.

The Plan and DEIR state that the plan relies on carbon removal and carbon capture and sequestration (CCS) technologies to address residual emissions. (Plan at 3-9; DEIR at 4-4). Instead of falling back on these unproven technologies and on market-based mechanisms, the Plan should set more ambitious targets for emissions reductions and protecting and enhancing natural and working lands, habitats, and ecosystems, as described above. Indeed, in its Special Report on Global Warming, the IPCC-modeled pathway with the best chance of keeping warming at or below 1.5°C makes no use of fossil fuels with carbon capture or BECCS and proposes limited to no use of engineered carbon removal technologies. (CIEL 2021). Instead, this pathway requires a rapid phaseout of fossil fuels along with *limited* carbon dioxide removal by natural sources such as reforestation and enhanced soil remediation.

Furthermore, CCS carries significant environmental impacts—and may not result in greenhouse gas emissions reductions—that must be analyzed in the program EIR for the Plan. As

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the Institute for Energy Economics and Financial Analysis notes, the energy required to capture, transport, and inject carbon underground “materially reduces its net benefit.” (Butler 2020, p. 4). For example, coal-fired power plants with carbon capture have an energy penalty of 25 percent or more, with the efficiency penalty as high as 15 percent. (Climate Action Network Int’l 2021, p. 9). These “penalties” mean more fuel must be burned to produce the same amount of power, which means higher energy costs, greater emissions of non-CO₂ air pollutants, and increased demand on the grid. (*Ibid.*) Moreover, in the United States, more than 95 percent of all CCS capacity deployed has been used for EOR, meaning “CO₂ waste products from a fossil fuel-burning activity are used to generate more fossil fuels.” (CIEL 2021, p. 8). The climate rationale for CCS evaporates if captured carbon is used to pump more oil. And any CO₂ that is stored underground risks leakage back to the atmosphere, based on the long track record of fossil fuel industry leaks and spills.⁵

CCS projects also can harm people because of the emission of harmful air pollutants such as fine particulate matter, ammonia, and hazardous volatile organic compounds. (Kubota 2019; Jacobson 2019). Further, toxic chemicals like lye and ammonia are used to “capture” carbon. (CRS 2021, pp. 4-5). Megatons of these dangerous chemicals must be produced, transported, and handled to operate carbon capture at scale, and will eventually be disposed of, putting communities at risk. And because CCS enables the underlying emissions-generating activity (such as fossil fuel power generation) to continue, upstream and downstream impacts from activities such as fossil fuel extraction, refining, transport, use, and disposal will continue to harm people’s health, particularly in overburdened communities. (CIEL 2021, p. 7).

A recent report by the Pipeline Safety Trust calls out CO₂ pipelines as “dangerous and underregulated.” (Kuprewicz 2022). This analysis applies not only to federal pipeline regulations but also those within California. In the state, the Office of the State Fire Marshall regulates intrastate hazardous liquid pipelines, whereas the California Public Utilities Commission regulates intrastate gas pipelines. (Gov. Code, § 51010; Pub. Util. Code, § 955). But as the Pipeline Safety Trust points out, CO₂ for CCS can be in liquid, gas, or supercritical form. CO₂ in a supercritical state can be categorized as either a liquid or gas and is not currently codified under either statutory or regulatory scheme. This is a problem because, as the Pipeline Safety Trust explains:

Carbon dioxide has different physical properties from products typically moved in hazardous hydrocarbon liquid or natural gas transmission pipelines. Those differences pose unique safety hazards and greatly increase the possible affected area or potential impact radius upon a pipeline release that

⁵ The myth of permanent carbon sequestration is echoed in regulations that merely kick the climate problem down the road and onto future generations. Under the Environmental Protection Agency’s regulations for Class VI injection wells for CO₂, for example, a permit applicant need only show that they can store CO₂ for 50 years to qualify for subsidies. (40 C.F.R. § 146.93.) California’s Low Carbon Fuel Standards does not fare much better, requiring only 100 years of storage. (CARB, Accounting and Permanence Protocol for Carbon Capture and Geologic Sequestration under Low Carbon Fuel Standard (2018), https://ww2.arb.ca.gov/sites/default/files/2020-03/CCS_Protocol_Under_LCFS_8-13-18_ada.pdf [“‘Permanent sequestration’ or ‘permanence’ means the state where sequestered CO₂ will remain within the sequestration zone for at least 100 years.”].)

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would endanger the public. CO₂ pipeline ruptures can impact areas measured in miles, not feet. The way regulations currently consider and mitigate for the risks posed by hydrocarbon pipelines in communities are neither appropriate nor sufficient for CO₂ pipelines. (Kuprewicz 2022).

And since *all* CCS projects require moving compressed CO₂ through pipelines, this is an immediate and alarming concern that should halt any CCS development until it is addressed.

As a result of its minimal, if any, effects on reducing carbon emissions and its potential to harm communities, CCS is not a workable backstop for the Plan. At the very least, the County must fully analyze the impacts of these technologies before perfunctorily including them in its plan to reach carbon neutrality.

VII. THE ALTERNATIVES ANALYSIS IN THE DEIR IS INADEQUATE AND FAILS TO COMPLY WITH CEQA.

CEQA mandates that significant environmental damage be avoided or substantially lessened where feasible. (Pub. Resources Code, § 21002; Guidelines, §§ 15002(a)(3), 15021(a)(2), 15126(d).) An agency is therefore barred from approving a project as proposed if there are feasible alternatives which will avoid or substantially lessen the project's significant environmental effects. (Pub. Resources Code, § 21002). Under CEQA, "the public agency bears the burden of affirmatively demonstrating that, notwithstanding a project's impact on the environment, the agency's approval of the proposed project followed meaningful consideration of alternatives and mitigation measures." (*Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 134). The DEIR's general statements regarding these topics are insufficient. A rigorous analysis of reasonable alternatives to the Project must be provided to comply with this strict mandate.

While alternatives included in an EIR need only be deemed "potentially feasible," an agency's decision at the end of the process to approve the project and find the alternatives "infeasible" requires a comprehensive comparison of the project with the alternatives. Broad considerations of policy come into play when the agency decides whether to approve the project. If the agency determines that the project will best achieve project objectives after considering relevant economic, environmental, social, technological, legal, and other factors, it may approve the project and find the alternatives "infeasible." Unfortunately, the DEIR's analysis of the alternatives proposed lacks evidence to support its conclusions and is therefore inadequate.

The DEIR analyzes two alternatives, to be implemented in addition to the measures and actions un the Draft 2045 Plan: a Carbon Offset Alternative and a Zero Net Energy Buildings Alternative. (DEIR at 4-10).

For one, the County should have considered an alternative in the DEIR that would phase out oil and gas production more quickly. The Plan notes that the objectives of 40 percent below 2015 levels by 2030, 60 percent by 2035, and 80 percent by 2045 would lead to annual GHG emissions reductions of 28,368 MTCO₂e by 2030, 40,178 MTCO₂e by 2035, and 52,148 MTCO₂e by 2045. The cumulative emission reduction potential of an earlier phase out date is large, dwarfing many of the renewable energy production and transportation measures. The Plan should have analyzed a

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2030 oil and gas operation phase out alternative, especially given that the alternative is not remote or speculative, but already in progress.

The County also lacked an adequate basis to reject the ZNE Buildings Alternative. ZNE Buildings Alternative would require, in addition to the implementation of measures in the Draft 2045 Plan, that all new residential and commercial construction in unincorporated areas of the County be ZNE by 2023. In addition, it would require 50 percent of existing residential and commercial buildings to be retrofitted by 2030, among other requirements. (DEIR at ES-51). As the DEIR notes, ZNE buildings produce enough renewable energy to meet their own annual energy consumption requirements, thereby reducing the use of nonrenewable energy—and the accompanying emissions—in the building sector. (DEIR at 4-10). No explanation was given for why, contrary to common sense, requiring all new buildings to be ZNE would nevertheless result in similar GHG emissions and worsen air quality and noise for surrounding communities.

Contrary to the DEIR’s conclusions, there is no evidence to suggest that this alternative would result in more severe environmental impacts. The County bafflingly concludes that this alternative could result in “similar” or “greater” greenhouse gas impacts as the 2045 County, even though the very definition of ZNE buildings means that they consume less renewable energy than they produce, whereas tradition buildings require continued natural gas hookups and the accompanying GHG emissions. The County thus has no evidence upon which to conclude that ZNE buildings have similar or greater GHG impacts. It must revise the GHG impact analysis to reflect the GHG emissions benefit of this alternative compared to the project, based on its own admissions that this alternative would “likely reduce Countywide GHG emissions more than the Project.” (DEIR at 4-24).

The DEIR also concludes that this alternative would lead to an increase in air quality pollutants and noise due to the “additional construction” for ZNE buildings. (DEIR at 4-19, 4-29). The County provides no evidence – and none appears to exist – showing that ZNE construction is noisier or results in the emissions of additional criteria pollutants. Indeed, building electrification improves outdoor air quality and public health outcomes, particularly in winter, when nitrogen oxide emissions create secondary fine particulate matter (PM 2.5) pollution. (Aas 2020). To the extent that the County believes that the implementation of ZNE building standards would induce additional construction projects beyond the construction projected for the County, there is no evidence to support that assertion, either.

The DEIR therefore provides no evidence, basis, or explanation for impermissibly rejecting this alternative. (*See Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935 [“To facilitate CEQA’s informational role, the EIR must contain facts and analysis, not just the agency’s bare conclusions or opinions.”].) As the County admits, this alternative would meet all the project objectives, result in fewer environmental impacts overall, and would even go further in reducing GHG emissions. (DEIR at 4-12).

If the reason for rejecting this alternative is feasibility, the County acknowledges it has not yet conducted a feasibility analysis to compare the upfront higher costs of ZNE infrastructure with traditional construction. As discussed above, the County Board of Supervisors has already ordered a study of the feasibility of phasing out the use of natural gas equipment and appliances in all new

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residential and commercial construction, where feasible, starting in 2023. (Los Angeles Board of Supervisors 2022). The Director of Public Works has 120 days, or until September 11, 2022, to return to the Board with recommendations. Other projects in the County have recently been approved to include a goal of zero net GHGs, which further demonstrates the feasibility of ZNE construction. (See CDFW 2017). The County may want to wait until those recommendations are complete before making a final decision on the viability of this alternative.

Should the County conclude that this alternative is infeasible, the standard for feasibility is high. Whether a project is economically unfeasible “is not measured by increased cost or lost profit, but upon whether the effect of the proposed mitigation is such that the project is rendered impractical.” (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 600, internal citation omitted.) In *Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, 1180, the Court agreed with the trial court that the administrative record did not contain analysis of the project alternatives in terms of comparative costs, comparative profit or losses, or comparative economic benefit to the project applicant or the community at large. Ultimately, the County must adopt the ZNE alternative unless it can demonstrate with evidence and analysis that this alternative is infeasible.

VIII. CONCLUSION

Thank you for the opportunity to submit comments on the Draft EIR and Plan. We look forward to reviewing the analysis and mitigation strategies in the Final EIR and Plan and proposing suggestions to refine and strengthen them. We also are happy to meet again with County Planning staff to discuss any of the recommendations in this letter. Please do not hesitate to contact the Center with any questions at the email or number listed below.

Sincerely,



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ATTACHMENT A



February 1, 2022

Sent via email

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
climate@planning.lacounty.gov

Re: Comments on Notice of Preparation of a Program Environmental Impact Report for the Los Angeles County 2045 Climate Action Plan

Dear Department of Regional Planning:

The Center for Biological Diversity (“Center”) submits the following comments on the Notice of Preparation (“NOP”) of a Program Environmental Impact Report (“PEIR”) for the Los Angeles County 2045 Climate Action Plan (“CAP”). The Center submitted comments on an earlier version of the draft CAP on April 30, 2020 (the “April 2020 Letter”), which is attached here as Exhibit 1. We hereby incorporate the comments in the April 2020 Letter by reference and request that the issues raised in that letter be considered in preparing the Draft EIR and revised CAP. We appreciate that the upcoming draft of the CAP will include “more clear, specific, feasible, and quantifiable” greenhouse gas (“GHG”) reduction strategies, as we requested in the April 2020 Letter.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County (“County”).

I. The Draft PEIR and CAP Should Explain How It is Consistent with Statewide Goals.

CEQA Guidelines section 15183.5(b)(1)(D) require that a climate action plan demonstrate that it will achieve planned reductions on a project by project basis. In *Cleveland National Forest Foundation v. San Diego Association of Governments*, the California Supreme Court provided more clarity on what facts, data, and goals projects should analyze in their greenhouse gas analyses under CEQA. ((2017) 3 Cal.5th 497.) The Court found that although an “Executive Order ‘is not an adopted GHG reduction plan’ and that ‘there is no legal requirement to use it as a threshold of significance[,]’ ... [t]he Executive Order’s 2050 goal of reducing California’s greenhouse gas emissions to 80 percent below 1990 levels expresses the pace and magnitude of reduction efforts that the scientific community believes necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project like SANDAG’s regional transportation plan.” (*Id.* at 515-516.) Therefore, the Draft CAP should include further discussion on measures that could ensure the County meets statewide goals, including in the Scoping Plan published by California Air Resources Board (“CARB”) and in executive orders on GHGs.

II. The Draft PEIR and CAP Should Include Binding and Enforceable Measures.

We appreciate that the County intends that the Draft PEIR and CAP include “more clear, specific, feasible, and quantifiable” GHG reduction strategies. We look forward to reviewing these strategies in the Draft PEIR and CAP and proposing recommendations to further improve and refine them. As outlined in the Draft CAP, a CAP must “[s]pecify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level...” (Draft CAP at 15.) We again caution that the Draft CAP should not include non-binding language in its mitigation measures (e.g., “encourage,” “promote,” “support” or “whenever feasible”).

The Draft PEIR and CAP should also include evidence describing how they will include sufficient funding and staff to carry out the programs and mitigation strategies included in the Draft PEIR and CAP. (See, e.g., *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116-1118 [EIR invalid because agency offered no evidence that measures for reducing impacts would actually be effective].)

III. The Draft PEIR and CAP Should Demonstrate How They Are Consistent with the LA County Sustainability Plan.

CEQA requires that EIRs disclose and discuss the project or program’s inconsistencies with an applicable regional plan, such as a habitat conservation plan or natural community conservation plan. (CEQA Guidelines § 15125(d); 1 Kostka & Zischke, *Practice Under the Cal. Env. Quality Act* (2d ed. 2015) § 6.56, p. 6-60.1.) The EIR should thus include a detailed analysis of the CAP’s consistency with the LA County Sustainability Plan, including how the CAP meets or exceeds the Goals, Strategies, Targets, and Actions set forth in the Plan.

IV. The Draft PEIR and CAP Should Include Strategies to Substantially Reduce VMT.

As noted in our April 2020 Letter, the CAP and Draft PEIR should include robust strategies to significantly reduce vehicle miles travelled (“VMT”) within LA County region and consider measures proposed by CARB including within the Scoping Plan. Such strategies should include limiting new large-scale development in areas that generate disproportionately high levels of VMT, including areas far from existing job centers. Consistent with the policies in the Draft LA County Safety Element, the CAP and Draft PEIR should reiterate that new subdivisions in very high fire hazard severity zones are prohibited and inconsistent with the CAP or the LA County General Plan.

V. The Draft PEIR and CAP Should Include Robust Strategies to Achieve Zero Net Energy for All New Development.

As outlined in the April 2020 Letter, the CAP offers LA County an opportunity become a leader in setting standards on requiring zero net energy (“ZNE”) for new (and existing) development. The Draft PEIR and CAP should require zero net energy on all new commercial and residential construction. ZNE is feasible, as other projects in the County have recently been approved include a goal of zero net GHGs.¹ The Draft PEIR and CAP should include a ZNE Program that establishes clear standards for meeting ZNE for various sizes of commercial and residential development, and pair such standards with County programs to dramatically increase ZNE infrastructure including free or low-cost EV chargers throughout the county.

Consistent with statewide goals² on ZNE buildings, the Draft PEIR and CAP should include plans, incentives, and programs to retrofit at least 50 percent of commercial buildings to ZNE by 2030. This could include a crediting system to incentivize the retrofitting of existing commercial and residential developments with EV chargers and other ZNE infrastructure.

VI. The Draft PEIR and CAP Should Include Strategies to Increase Energy Resilience.

The Center supports the Draft CAP’s goal to shift to a renewables-based electricity supply which ensures equitable access to affordable, local, and reliable energy sources. However, the Draft PEIR and CAP should include far more ambitious strategies to increase energy resilience through the widespread adoption of renewable energy. While the April 2020 Letter cites studies demonstrating the feasibility of distributed energy resources, the even more recent results of National Renewable Energy Laboratory (“NREL”)’s Los Angeles 100% Renewable Energy Study (“LA100”)³ further demonstrate that achieving 100 percent reliable renewable energy is feasible in the near-term (e.g., by 2035).

¹ See California Department of Fish and Wildlife, *Newhall Ranch Resource and Development Management and Development Plan, Final Additional Environmental Analysis*, Appendix 2.1, available at http://planning.lacounty.gov/assets/upl/case/tr_53108_appendix-2-0-cdfw-final-aea-excerpts.pdf.

² California Public Utilities Commission, *Zero Net Energy*, available at <https://www.cpuc.ca.gov/ZNE/>.

³ The full report is available here: <https://maps.nrel.gov/la100/report>.

The Draft PEIR and CAP should also include a program or ordinance to fund and facilitate photovoltaic energy and storage, including through microgrid development, especially for unincorporated and fire-prone areas.

VII. Conclusion

Thank you for the opportunity to submit comments on the NOP. We look forward to reviewing the analysis and mitigation strategies in the Draft PEIR and CAP and proposing suggestions to refine and strengthen them. We also are happy to meet with County Planning staff to discuss any of the recommendations in this letter or the April 2020 Letter.

Sincerely,



J.P. Rose
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Exhibit 1



April 30, 2020

Sent via email

Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012
climate@planning.lacounty.gov

Re: Comments on Public Review Draft of Los Angeles County Climate Action Plan

Dear Department of Regional Planning:

The Center for Biological Diversity (“Center”) submits the following comments on the Los Angeles County Climate Action Plan Public Review Draft (“Draft CAP”). While the Draft CAP includes some laudable goals, it suffers from a lack of clear and enforceable measures to ensure significant reductions in regional greenhouse gas (“GHG”) emissions. Many of our concerns were also reflected in our comments on the Draft Sustainability Plan, which is included as Attachment 1 and incorporated by reference.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County (“County”).

I. Climate Change Is an Urgent and Existential Concern.

Recent science has made clear that human-caused climate change is causing widespread harms to human society and natural systems, and climate change threats are becoming increasingly dangerous. In its 2018 *Special Report on Global Warming of 1.5°C*, the Intergovernmental Panel on Climate Change (“IPCC”)—the leading international scientific body for the assessment of climate change—describes the devastating harms that would occur at 2°C warming. The report highlights the necessity of limiting warming to 1.5°C to avoid catastrophic impacts to people and life on Earth (IPCC 2018). The report also provides overwhelming evidence that climate hazards are more urgent and more severe than previously thought, and that aggressive reductions in emissions within the next decade are essential to avoid the most devastating climate change harms.

The impacts of climate change are already being felt by humans and wildlife. Thousands of studies conducted by researchers around the world have documented changes in surface, atmospheric, and oceanic temperatures; melting glaciers; diminishing snow cover; shrinking sea ice; rising sea levels; ocean acidification; and increasing atmospheric water vapor (USGCRP 2017). In California, climate change will transform our climate, resulting in impacts including, but not limited to, increased temperatures and wildfires and a reduction in snowpack and precipitation levels and water availability.

II. The County Has a Responsibility to Reduce GHG Emissions.

California gives local authorities like the County significant responsibility over land use and planning decisions within their jurisdictions. But with that responsibility comes a corresponding obligation to account for the negative environmental impacts of those decisions—especially when it comes to controlling GHG emissions. As the California Air Resources Board (“CARB”) explains:

Local governments are essential partners in achieving California’s goals to reduce GHG emissions. Local governments can implement GHG emissions reduction strategies to address local conditions and issues and can effectively engage citizens at the local level. Local governments also have broad jurisdiction, and sometimes unique authorities, through their community-scale planning and permitting processes, discretionary actions, local codes and ordinances, outreach and education efforts, and municipal operations. Further, local jurisdictions can develop new and innovative approaches to reduce GHG emissions that can then be adopted elsewhere.

(CARB 2017.) California’s Scoping Plan, which lays out the statewide blueprint for meeting the legislature’s greenhouse gas reduction targets, also specifically calls out local governments as essential to meeting these targets:

[L]ocal governments and agencies are critical leaders in reducing emissions through actions that reduce demand for electricity, transportation fuels, and natural gas, and improved natural and working lands management. . . . Over the last 60 years, development patterns have led to sprawling suburban neighborhoods, a vast highway system, growth in automobile ownership, and under-prioritization of infrastructure for public transit and active transportation. Local decisions about these policies today can establish a more sustainable built environment for the future.

(CARB 2017.) Thus, the County must take seriously its obligation to do its utmost to ensure that it is reducing GHG emissions and contributing to the state’s achievement of its emissions reduction targets.

III. The Draft CAP Fails to Explain How It Will Meet State Goals.

While the Draft CAP acknowledges statewide climate goals (Draft CAP at 6-8 & 36), it does not explain how measures in the Draft CAP will actually meet these statewide climate goals. For instance, statewide targets require GHG emissions to be reduced to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and achieve statewide carbon neutrality by 2045. (Draft CAP at 17 & 36.)

In contrast, the Draft CAP includes a different set of goals: by 2025, reduce GHG emissions by 25 percent below 2015 levels; by 2035, reduce GHG emissions by 50 percent below 2015 levels; and by 2045, achieve carbon neutrality in unincorporated Los Angeles County. (Draft CAP at 8.) The Draft CAP fails to explain how these goals are either consistent or inconsistent with each of the statewide goals.

The Draft CAP therefore does not qualify as a CEQA “streamlining” document. CEQA Guidelines section 15183.5(b)(1)(D) require that a climate action plan demonstrate that it will achieve planned reductions on a project by project basis. In *Cleveland National Forest Foundation v. San Diego Association of Governments*, the California Supreme Court provided more clarity on what facts, data, and goals projects should analyze in their greenhouse gas analyses under CEQA. ((2017) 3 Cal.5th 497.) The Court found that although an “Executive Order ‘is not an adopted GHG reduction plan’ and that ‘there is no legal requirement to use it as a threshold of significance[,]’ ... [t]he Executive Order’s 2050 goal of reducing California’s greenhouse gas emissions to 80 percent below 1990 levels expresses the pace and magnitude of reduction efforts that the scientific community believes necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project like SANDAG’s regional transportation plan.” (*Id.* at 515-516.) Therefore, the Draft CAP should include further discussion on measures that could ensure the County meets statewide goals.

IV. The Draft CAP’s GHG Emissions Inventory Is Incomplete.

The Draft CAP lists five categories of GHG emissions in its GHG inventory: transportation, stationary energy, waste, industrial processes and product use (“IPPU”), and agriculture, forestry and, other land use (“AFOLU”). (Draft CAP at 30-32.) The CAP should set forth the emissions categories in more detail. A guide prepared by the Bay Area Air Quality Management District (“BAAQMD”) recommends, for example, listing the GHG emissions of specific items such as streetlights and traffic signals. (BAAQMD 2009.)

The Draft CAP also does not explain whether “transportation” emissions include emissions outside the County by activity within the County (for example, from exported goods or tourist travel to County from outside the County). This very shortcoming led to a judge invalidating Sonoma County’s CAP last year, after the judge determined that it failed to account for all of the County’s emissions by excluding transboundary emissions.¹ (Attachment 2.)

¹ The court also held that the CAP’s GHG reduction measures were not clearly defined or enforceable, which is also an issue with the Draft CAP here.

V. The Draft CAP’s Reduction Strategies and Measures Are Non-Binding And Unenforceable.

The Draft CAP states that if future projects “tier” off of it, then compliance will negate the need for a qualitative analysis of future projects’ GHG emissions. (Draft CAP at 15.) The Draft CAP also correctly lays out the legal requirements of a climate action plan. (Draft CAP at 15.) For instance, a CAP must “Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level...” (Draft CAP at 15.) Therefore, the Final CAP, and any such plan prepared pursuant to CEQA Guidelines 15183.5, must meet the requirements for all first-tier environmental review documents and thus must impose enforceable requirements and measures with defined performance standards.²

Unfortunately, many of the Draft CAP’s reduction measures are largely non-binding and unenforceable, and generally lack performance standards. Notably, the words “encourage,” “promote,” “support” or “whenever feasible” occur many times in the sections describing the Draft CAP’s implementation measures. These measures are legally inadequate and cannot be considered mitigation under CEQA and applicable case law. (*Lincoln Place Tenants Assn. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 445 [“A ‘mitigation measure’ is a suggestion or change that would reduce or minimize significant adverse impacts on the environment caused by the project as proposed”]); *Preserve Wild Santee v. City of Santee* (2012) 210 CA 4th 260, 281 [mitigation measures that are so undefined that their effectiveness is impossible to determine are legally inadequate].) The California Attorney General has also expressly disapproved such an approach for measures upon which an agency relies:

Can a lead agency rely on policies and measures that simply “encourage” GHG efficiency and emissions reductions?

No. Mitigation measures must be “fully enforceable.” *Adequate mitigation does not, for example, merely “encourage” or “support” carpools and transit options, green building practices, and development in urban centers.* While a menu of hortatory GHG policies is positive, it does not count as adequate mitigation because there is no certainty that the policies will be implemented.

(CA Attorney General 2009.) The California Attorney General further states that programmatic plans to reduce GHG emissions pursuant to CEQA Guidelines section 15183.5 must “[i]dentify a set of specific, enforceable measures that, collectively, will achieve the emissions targets....” (CA Attorney General 2019.)

In *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, the Fourth District Court of Appeal criticized the County of San Diego for including measures in its CAP that were not backed up by a firm commitment by the County that they would be implemented. The Court noted that many of the measures in the CAP “are not currently funded,” such that the County of San Diego could not rely upon such unfunded programs to meet GHG reductions. (*Id.* at 1168-

² Specifically, CEQA Guidelines section 15183.5(b)(1)(D) states that measures should have “performance standards” which demonstrate they will achieve the planned reductions on a project by project basis.

1169.) The *Sierra Club* opinion also questioned whether people would actually participate in various programs outlined in the CAP, given that the record contained no evidence of such participation. (*Id.* at 1170.) Here, the Draft CAP suffers from similar defects – there is no evidence of funding for many of the various programs set forth in the Final CAP, nor evidence in the record that people or industry will actually participate in the voluntary programs described in the Draft CAP.

Accordingly, although the Draft CAP’s reduction measures may generally be worthwhile objectives for the County to pursue, the Draft CAP fails as a CEQA compliance tool because it relies upon non-enforceable measures. The Draft CAP also does not have adequate mechanisms to monitor progress towards achieving verifiable reduction targets.

VI. Strategy 2 Fails to Include Sufficient Measures to Support Transit Oriented Communities.

The Center generally supports the goals of Strategy 2 to support transit oriented communities. However, the targets are unclear, inadequate, and do not provide a path to actually achieve this goal. For instance, the 2025 target is to (1) “increase new housing built within 1/2 mile of high frequency transit to 50%” and (2) “reduce VMT per capita to 20 miles.” This target does not specify what the “50%” is a percent of – does this mean 50% of all new housing units in the County? This needs to be clarified in the Final CAP. In addition, it is unclear whether the County is intending to reduce VMT per capita to 20 miles *per day* or some other amount of time. More importantly, VMT per capita of 20 miles a day is still an extremely high number; the CAP should have more aggressive goals to reduce VMT per capita by 2025. As described in further detail in our comment letter on the Draft Sustainability Plan, significant reductions in VMT are required if the state is to meet its GHG reduction goals. (See Attachment 1 at p. 9-10.)

Unfortunately, the Actions supporting Strategy 2 provide no concrete requirements or criteria, or way to measure success. For instance, Action T1 states “Expand the number and extent of transit oriented communities, by encouraging development within High Quality Transit Areas, while ensuring vital public amenities such as parks and active transportation infrastructure are included.” (Draft CAP at 50.) Action T1 fails to contain a clear plan how such development will be “encouraged” such that it is little more than a hortatory statement. Likewise, Action T2 states “Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease the vehicle miles traveled.” (*Id.*) This action suffers from the same defects as Action T1. It also fails to specify any target increase in percentage of residents who live or work in the same community, or elements of such “community plans.”

VII. Strategy 3 Fails to Include Sufficient Measures to Reduce VMT.

Strategy 3 aims to reduce single occupancy vehicle (“SOV”) vehicle trips. However, the Draft CAP does not contain sufficiently aggressive goals. For instance, the Draft CAP only seeks 15 percent of trips to be non-SOV trips by 2025. (Draft CAP at 51.) As we noted in our comments on the Draft Sustainability Plan (Attachment 1), even if this target is met, in five years 85 percent of trips in the County will still be by car. The Draft CAP should call for much stronger measures to reduce SOV trips and VMT. The best way to do this is to limit development

in areas far from existing cities, as remote developments generate disproportionately high levels of VMT.

The actions within Strategy 3 are similarly inadequate. For instance, Action T5 states “develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit and advance OurCounty goals.” (Draft Plan at 51.) This is extremely vague and suffers from the defects outlined in Section V above. Similarly, Action T8 generally refers to “expand[ing] shade along and over pedestrian networks through zoning code revisions that encourage shade-providing building features,” but provides no enforceable requirements or metrics as to how much “shade expansion” will be required. (Draft CAP at 52.) Also illustrative of this problem is Action T11, which states, “Develop and implement a transportation demand management (TDM) ordinance that requires developers to incorporate measures such as subsidized transit passes and car share.” (Draft CAP at 53.) The time and opportunity to develop measures to require of developers for future projects is here in the CAP, if the County wishes to use the CAP as a CEQA streamlining document.

VIII. Strategy 4 Does Not Include A Clear Plan to Institutionalize Low-Carbon Transportation.

The Center supports Strategy 4 – institutionalize low-carbon transportation. (Draft CAP at 44.) However, the related “Targets” are woefully inadequate – the Draft Plan only seeks 500 EV and 200 ZEV charging stations at County-owned or public properties, and contains no targets for the remainder of the County (e.g., private businesses, residential developments). (Draft CAP at 55.) Likewise, the “Actions” provide no actual mandate for developers or landowners to incorporate charging stations into infrastructure.

If the County is serious about institutionalizing low carbon transportation, it needs to do far more than simply add a few hundred EV chargers at public venues. The CAP should instead include aggressive mandates for every new development (commercial and residential) to include an adequate number of EV chargers, as well as a crediting system in order to incentivize the retrofitting of existing commercial and residential developments with EV chargers.

The CAP should also require installation of charging stations at *all* County-owned properties and public venues, as well as in appropriate public right-of-ways.

And as with the other sections of the CAP, the “Actions” are vague, unenforceable, and do not include any performance criteria. For instance, Action T20 states: “Partner with a car or ride-sharing organization to provide access to EVs for low-income and disadvantaged community residents.” (Draft CAP at 57.) Action T20 does not provide any guidance as to what “partnering” means, nor does it provide any benchmark for success. How much expanded access to EVs will the County pursue via this measure? By failing to include any actual target or goal to measure success, the Draft CAP dooms this (and many other Actions) to failure.

IX. Strategy 5 Does Not Contain Clear Plan To Accelerate Freight Decarbonization.

The Center supports the goal to accelerate freight decarbonization. Unfortunately, once again, the Draft CAP’s Targets and Actions are not sufficient to meaningfully support this goal.

The Draft CAP does not even clear targets for medium-duty delivery trucks – it simply states that 25-50 percent of medium-duty delivery trucks should be electric or zero emission by 2025. (Draft CAP at 58.) This renders it unclear whether the goal is 25 percent or 50 percent. And the Draft CAP simply has no corresponding and more aggressive targets for 2035 and 2045.

Likewise, the Actions are untenably vague. By way of example, Action T25 states: “Implement freight decarbonization technologies along highway corridors passing through unincorporated communities ...” (Draft CAP at 59.) No specifics, enforceable mandates, or performance criteria are used to define this purportedly “Major Action.”

X. Strategy 6 Contains No Plan to Implement Zero Emissions Technologies for Off-road Vehicles and Equipment.

The Draft CAP should include concrete plans to implement and eventually require zero emissions technologies off-road vehicles and equipment. Instead, the Action items include non-binding language like: “Partner with SCAQMD and AVAQMD to *encourage* the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.” (Draft CAP at 60, emphasis added.) The CAP can, and should, require zero emission or near-zero emission equipment by a specific date.

XI. Strategy 7 Does Not Provide A Plan To Decarbonize Building Energy Use.

The Center supports decarbonizing building energy use, but finds that the Draft CAP squanders an opportunity to establish the County as a leader in this area. The Final CAP should require zero net energy on all new commercial and residential construction. Zero net energy is feasible, as other projects in the County that have recently been approved include a goal of zero net greenhouse gas emissions.³

Indeed, the Draft CAP does not even contain goals that are consistent with state-wide goals. The California Energy Efficiency Strategic Plan provides:

- All new residential construction will be zero net energy (ZNE) by 2020.
- All new commercial construction will be ZNE by 2030
- 50% of commercial buildings will be retrofit to ZNE by 2030
- 50% of new major renovations of state buildings will be ZNE by 2025.⁴

In contrast, the Draft CAP only sets a target of 50 percent of all new buildings and major building renovations being “net zero carbon” by 2025 and 100 percent by 2045. (Draft CAP at 63.) The Draft Plan should contain far more aggressive goals that are consistent with climate science; the entire building sector should achieve zero emissions no later than later than 2045,

³ See California Department of Fish and Wildlife, *Newhall Ranch Resource and Development Management and Development Plan, Final Additional Environmental Analysis*, Appendix 2.1, available at http://planning.lacounty.gov/assets/upl/case/tr_53108_appendix-2-0-cdfw-final-aea-excerpts.pdf.

⁴ California Public Utilities Commission, *Zero Net Energy*, available at <https://www.cpuc.ca.gov/ZNE/>.

with interim enforceable benchmarks.⁵ Moreover, the Draft CAP also does not explain whether term “net zero carbon” is consistent with the state definition of zero net energy.

Strategy 7’s Actions fair no better. For instance, Action SE2 simply states “Establish carbon intensity limits for buildings over 20,000 square feet.” (Draft CAP at 64.) This contains no objection performance criteria – at best, it is a promise to develop performance criteria at some unspecified time in the future. As such, it fails as a CEQA mitigation measure. (See discussion in Section V above.)

Action SE4 also vaguely promises to “Adopt building code requirements for electric water and space heating and encourage alternatives to other natural gas uses in new and existing buildings.” (Draft CAP at 64.) The CAP needs to actually describe building code requirements or provide performance criteria. And “encouraging alternatives” is not a CEQA mitigation measure. Action SE7 likewise promises collaboration with the City of Los Angeles and Santa Monica to “develop building energy and emissions performance standards,” but provides no specifics on what those standards will entail, or what level of emissions reductions they would be expected or required to provide. (Draft CAP at 65.)

Action SE5 states “Adopt CALGreen Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments.” (Draft CAP at 64.) However, significant portions of the California Green Building Standards are already mandatory. Such that it is unclear whether there is simply a restatement of existing law.⁶

Action SE6 is problematic for other reasons. This Action states, “Incentivize net zero energy residential and commercial buildings through streamlined development reviews.” (Draft CAP at 65.) First, as noted above, zero net energy should be *required*, not simply incentivized. Second, the Action does not explain what or how development review will be “streamlined.” While a CAP that complies with CEQA can streamline some aspects of development, development review should not be streamlined in a way that overlooks other non-climate impacts of a project, such as impacts on air quality, public health, wildlife, and traffic.

In contrast to the vague and unenforceable Actions in the Draft CAP, there are number of enforceable policies that can be used to reach achieve zero emissions by 2045 for all buildings. The Sierra Club’s *Building Electrification Action Plan for Climate Leaders* outlines various proposals, including a zero emission building code, local ordinances restricting gas and requiring all-electric new construction for all building types, GHG performance benchmarking, and air pollution standards for appliances. (See footnote 5.)

⁵ Rachel Golden, *Building Electrification Action Plan for Climate Leaders* <https://www.sierraclub.org/sites/www.sierraclub.org/files/Building%20Electrification%20Action%20Plan%20for%20Climate%20Leaders.pdf> (Dec. 2019).

⁶ See California Building Standards Commission, “California’s Green Building Code,” available at <https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen>.

XII. Strategy 9 Does Not Provide A Concrete Plan To Increase Energy Resilience.

The Center supports the Draft CAP’s goal to shift to a renewables-based electricity supply which ensures equitable access to affordable, local, and reliable energy sources. (Draft CAP at 69.) The Center urges the County to include more ambitious targets for distributed energy resources (“DER”). The Draft CAP calls for a 200 megawatt increase in DER capacity by 2025 and a 1 gigawatt increase by 2045. The Center urges the County to incorporate a target of 1 gigawatt in photovoltaic (“PV”) energy by 2025 and 4 gigawatts by 2045. The Draft CAP should include a target for 500 megawatts of distributed storage capacity by 2045 and 2 gigawatts by 2045.

DER plays a unique and vital role in creating a renewable energy future that not only promotes deeper renewable penetration, but also advances fundamental goals of equal access to clean energy, social justice, and biodiversity protection. With minimal water use, no emissions from generation, and minimal land use impacts, distributed solar is the most sustainable energy source currently in production.⁷ Further, building up distributed solar allows communities to gain local control over their energy system rather than leaving that control in the hands of investor-owned monopoly utilities. This shift empowers communities to make their own energy choices and gives them access to cheaper and cleaner energy, driving energy democracy. Progressive community solar policy can also enable renters and individuals who cannot afford to buy solar energy systems to invest in renewable energy, which in turn creates economic growth and local employment opportunities.

Studies show that far more ambitious targets for DER are currently feasible. A study by the National Renewable Energy Laboratory found that Los Angeles could support 9 gigawatts of rooftop solar, or 60 percent of its estimated total energy demand, using fairly conservative estimates.⁸ Another study by the Institute of the Environment and Sustainability at the University of California, Los Angeles (“UCLA”) found that rooftop solar can provide 7200 gigawatt hours of on-site building demands in a study area of 1.2 million parcels in L.A. County, which would meet approximately 29 percent of on-site building demands.⁹

The UCLA study found that remaining building demand that would be met by grid sources is approximately 18,000 gigawatt hours, and the potential solar output to export to the grid that is not used on-site is 16,400 gigawatt hours – this significant amount of additional electricity could be available for use by neighboring properties or elsewhere. The UCLA study also found that existing policies regulating grid operations limit potential rooftop solar output; in 20 percent of communities, current policies would reduce the technical potential of net solar generation by limiting the size of the arrays that can be installed. Moreover, the UCLA study found that lower-income and at-risk communities have greatest capacity for solar energy exports

⁷ Wisner, R. et al., “The environmental and public health benefits of achieving high penetrations of solar energy in the United States,” *Nature Energy* Vol. 113, pp. 472-486 (2016); Hernandez, R.R., Hoffacker, M.K. and C. Fields, “Efficient Use of Land to Meet Sustainable Energy Needs,” *Nature Climate Change*, Vol. 5: 353–358, (2015).

⁸ Pieter Gagnon, et al., *Rooftop Solar Photovoltaic Technical Potential in the United States: A Detailed Assessment* (Jan. 2016), available at <https://www.nrel.gov/docs/fy16osti/65298.pdf>.

⁹ Erik Porse, et al., *Net solar generation potential from urban rooftops in Los Angeles*, *Energy Policy* (July 2020).

to the grid. In short, the County should take a hard look at the actual solar capacity of the County based upon existing studies and include policies to meet or exceed the actual solar capacity.

The proposed Actions are also insufficient to address either the targets in the Draft CAP or the more aggressive targets proposed by the Center. Action SE14 proposes developing a community energy map that identifies opportunities for deploying distributed energy resources and microgrids in order to improve energy resiliency in disadvantaged communities. (Draft CAP at 69.) Instead of merely generating a map, the County should develop a program or ordinance to fund and facilitate PV and storage microgrid development, especially for unincorporated and fire-prone areas. The County could begin this program in fire-prone communities, and aim for a minimum of 10 percent PV and storage microgrids instead of simply 10 percent DER installation in fire-prone communities.

XIII. Strategy 10 Fails to Provide a Plan To Reach the Target Renewable Energy Goals.

The Center supports the general goal of Strategy 10 to increase renewable energy, but notes that much stronger targets should be incorporated into the Draft CAP. The Draft CAP calls for installation of solar on only 20 percent of commercial buildings over 50,000 square feet and at least 10 percent of single family residential buildings by 2025, and higher targets for 2035 and 2045.

The Draft CAP should set far more ambitious targets. It should require solar on 60 percent of commercial buildings of any size that are solar compatible and 50 percent of residential buildings by 2025, and 100 percent of all solar compatible buildings by 2030.

The Draft CAP also does not specify *how much* solar must be installed on buildings; by its own terms, a single small panel could be installed on a building, and that building could potentially count towards the goals. As with other sections of the Draft CAP, the Draft CAP does not explain or provide data (e.g., in appendices) how the anticipated GHG mitigation potential is supported by the target.

Once again, the proposed mitigation strategies or “Actions” fall far short of even meeting the Draft CAP’s existing targets. For instance, Action SE17 simply promises that the County will “encourage 100% renewable energy resource mix by 2025.” (Draft CAP at 72.) The severity and urgency of the climate crisis requires governments to do far more than simply “encourage” positive steps—the climate crisis (and state laws and policies) *requires* far more aggressive actions.

Moreover, the Draft CAP should strengthen the County’s role in supporting the community choice aggregation program. More specifically, the Draft CAP should include a no-cost subscription program for low-income families as well as tenants to participate. Such programs could be funded by creating a Community Energy Benefits Fund that would then be overseen by citizen task force or other non-governmental body—the Portland Clean Energy Fund illustrate of how such a program could function. Another example is East Bay Community Energy, which serves Alameda County.

XIV. The Draft CAP Fails to Contain Any Clear Plan To Support Strategy 16, Conserve Forests and Working Lands

The Center supports the conservation of forests and working lands. The Center also supports the targets to increase urban tree canopy. However, the Draft CAP fails to acknowledge how this plan fits into other related plans and programs. In particular, the City of Los Angeles is currently moving forward with a “Safe Sidewalks” initiative that will likely result in the destruction of many thousands of urban trees.¹⁰

Moreover, the Center supports Action A1 – supporting “the preservation of agricultural and working lands, including rangelands, and restore forest lands, by limiting the conversion of these lands to residential or other uses through tools such as the creation of agricultural easements, particularly within high climate-hazard areas and SEAs.” (Draft CAP at 87.) Yet, as outlined in our comments on the Draft Sustainability Plan, the County has a pattern and practice of *approving* large-scale development in rangelands and forest lands, particularly in high fire hazard areas. (See Attachment 1 at p. 4.) Action A1’s unenforceable promise to “limit” such conversion is unavailing and fails as a CEQA mitigation measure. (Draft CAP at 87.)

XV. The Draft CAP Fails to Identify Funding Sources for Mitigation Strategies.

As noted above, in *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, the Court of Appeal determined that measures in a CAP were insufficient when they were not adequately funded. (*Id.* at 1168-1169.) Here, the various “actions” in the Draft CAP acknowledge that funding will be required (using icons ranging from a \$ to \$\$\$\$), but fail to include a specific estimate of how much funding may cost, or identify an available source of funding. Similarly, the handful of sentences in the Implementation Plans “identification of funding sources” provide no specificity nor commitment for funding any of the Draft CAP’s Actions. (See Draft CAP at 92.) This renders the Draft CAP inadequate as a CEQA streamlining document. Moreover, this omission calls into question whether any of the programs outlined in the Draft CAP will ever be implemented.

XVI. The Draft EIR Should Provide Further Detail on Mitigation Measures for Individual Projects.

The Center understands that the County will be preparing an EIR for the CAP. (See, e.g., Draft CAP at 15 [“With the adopted CAP, project-specific environmental documents that incorporate applicable CAP actions can “tier off” the environmental document adopted for the CAP to meet project-level CEQA evaluation requirements for GHG emissions.”].) In addition, CEQA Guidelines section 15183.5(b)(1)(F) requires that a climate action plan be adopted in a public process “after environmental review.” Subdivision (b)(2) provides that “[a] plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later project.”

¹⁰ Safe Sidewalks LA, Draft Environmental Impact Report, available at <https://sidewalks.lacity.org/environmental-impact-report>.

The Center hereby requests a minimum 90-day comment period for the Draft EIR in order to allow for adequate review by the public, particularly given the importance of the document for region-wide planning and the complexity of the issues. We hope that the Draft EIR and next draft of the CAP include and evaluate clear and enforceable measures to put the County on track to reach each of the statewide goals.

XVII. Conclusion

Thank you for the opportunity to submit comments on the Draft CAP. The Center strongly supports many of the goals of the Draft CAP. But these goals are not supported by clear, enforceable, and funded policies. The Center urges the County to significantly revise the CAP in order to address these deficiencies.

Please do not hesitate to contact us if you would like to meet to further discuss these issues.

Sincerely,



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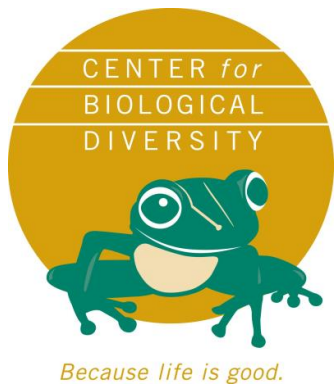
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Attachment 1



May 24, 2019

Sent via email and FedEx

Los Angeles County Chief Sustainability Office
Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012
sustainability@lacounty.gov

Re: Comments on Discussion Draft of Los Angeles Countywide Sustainability Plan

Dear Los Angeles County Chief Sustainability Office:

These comments are submitted on behalf of the Center for Biological Diversity (“Center”) regarding the Discussion Draft of the Los Angeles Countywide Sustainability Plan (“Draft Plan”). The Center appreciates the Chief Sustainability Office’s efforts in developing the Draft Plan and generally supports the goals of the Draft Plan. We urge the Chief Sustainability Office and the Los Angeles County Board of Supervisors (“Board”) to ensure that the strategies and policies supporting these goals are clear and enforceable.

A. Background on the Center for Biological Diversity.

The Center for Biological Diversity (“Center”) is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County.

B. The Center Urges Stronger Buffers to Ensure Healthy Community Environments.

We strongly support Goals 1 and 4—“resilient and healthy community environments where residents thrive in place” and opportunities for residents and businesses to “transition to clean economy sectors.” (Draft Plan at 20 & 72.) We also support strong efforts to decrease the public health problems generated by freeways and oil and gas drilling, but are concerned that the proposed targets and actions do not go far enough.

The Plan Should Require Larger Buffers between Sensitive Uses and Freeways

We support “siting of new sensitive uses, such as playgrounds, daycare centers, schools, residences, or medical facilities” farther from freeways, but are concerned that the proposed 500-foot buffers are insufficient. Studies indicate even people **900 to 1200 feet** from freeways experience health impacts and sensitive receptors such as children and the elderly suffer the most. (Lin 2002.) A review of 700 studies concluded that pollution causes asthma attacks in children, the onset of childhood asthma, impaired lung function, premature death and death from cardiovascular diseases, and cardiovascular morbidity. (Health Effects Institute 2010.) The Health Effects Institute study concluded that the “exposure zone” was 300 to 500 meters from the highways (984 feet to 1640 feet). (*Id.*) Other studies have reached similar conclusions. (Suglia 2008.) Living near expressways also increases the likelihood that residents will suffer from dementia. (Chen 2017.) The University of Southern California’s Environmental Health Centers have also collected data and studies showing risks and health impacts to pregnant women, babies, children, teenagers, adults, and seniors of living by a freeway.¹

The Plan Should Require 2500-foot Setbacks to Separate Oil and Gas Facilities from Homes

We would like to emphasize our support for the Draft Plan’s inclusion of a series of actions to address the disproportionate exposure of low-income communities of color to fossil fuel extraction and refining (Actions 2, 3, 4, 5 and 7). In addition, we support Action 78 that calls for collaborating with the City of Los Angeles to develop a sunset strategy for oil and gas operations that prioritizes disproportionately impacted neighborhoods. In the final adoption of the plan, we urge the County to incorporate a more specific, concrete and common sense measure that we have supported at the City and County as an ally of the STAND-LA coalition: a 2500-foot setback (or buffer zone) to separate oil and gas facilities from homes, schools and other sensitive land uses, with a plan to phase out existing oil and gas within no more than five years. We are also supportive of the Draft Plan’s inclusion of a commitment to a “Just Transition” that examines the impact of the transition to a cleaner economy and develops strategies for supporting displaced workers and connecting them with meaningful job training and employment opportunities (Actions 56 and 57).

¹ University of Southern California Environmental Health Centers, *References: Living Near Busy Roads or Traffic Pollution*, available at <http://envhealthcenters.usc.edu/infographics/infographic-living-near-busy-roads-or-traffic-pollution/references-living-near-busy-roads-or-traffic-pollution> (collecting studies). See also Tony Barboza and Jon Schleuss, “L.A. keeps building near freeways, even though living there makes people sick,” *Los Angeles Times* (Mar. 2, 2017), available at <http://www.latimes.com/projects/la-me-freeway-pollution/>.

Reducing Asthma and Toxic Emissions through Less VMT

The Center strongly supports decreasing child asthma rates as proposed by the Draft Plan. However, this will not be possible if the Board continues to approve projects that add more unnecessary freeway traffic and air pollution to the region. An example of this is the recently-approved Centennial development approved by the Board, which will add 75,000 new long distance car commuters onto our freeways, increasing air pollution and hindering efforts to reduce toxic emissions.

C. The Center Supports Goal 2 and Urges Implementation of Zero Net Energy Standards.

We support the Plan’s Goal 2—ensuring that “[b]uildings and infrastructure that support human health and resilience.” (Draft Plan at 42.) The Center notes that Action Item 30 envisions the County will “Pilot high performance building standards for new County buildings beyond the current LEED Gold standard, such as Passive House, Zero Net Energy, Net Zero Water, Net Zero Waste...” (Draft Plan at 50.) The Center urges the Plan to require more than just a “pilot” for Zero Net Energy and instead move forward with policies and standards to require zero net energy for new construction.

Zero net energy is feasible, as other projects in the County that have recently been approved include a goal of zero net greenhouse gas emissions. Such projects intend to achieve that goal through reducing onsite greenhouse gas emissions to the greatest extent practicable, but also by offsetting any other emissions through local emissions reductions projects.²

D. The Center Supports Goal 3 and Urges Concrete and Enforceable Policies to Limit Sprawl Development.

The Center strongly supports the Draft Plan’s goal of equitable and sustainable land use and development without displacement. (Draft Plan at 58.) The Center agrees that the way the County “choose[s] to direct that growth has huge implications for the environment, the economy and social equity.” (*Id.*) Likewise, the Center agrees:

Patterns of exurban sprawl and development in high-hazard areas can place major burdens on our infrastructure and public budgets, especially for unincorporated communities where the County of Los Angeles acts as the municipal service provider. Outward growth limits the resources we could otherwise be investing in our existing communities, where we can promote sustainability, health and well-being by improving walkability and promoting a mixture of uses.

(Draft Plan at 58.) The Draft Plan is correct that exurban sprawl imposes a hidden tax on existing communities. Studies recognize that sprawl “may deprive the poor of economic

² See California Department of Fish and Wildlife, *Newhall Ranch Resource and Development Management and Development Plan, Final Additional Environmental Analysis*, Appendix 2.1, available at http://planning.lacounty.gov/assets/upl/case/tr_53108_appendix-2-0-cdfw-final-aea-excerpts.pdf.

opportunity...when jobs, stores, good schools and other resources migrate outward from the core city, poverty is concentrated in the neighborhoods that are left behind.” (Frumkin 2002.) Studies also show that sprawl disproportionately increases costs on local government through increased infrastructure costs. (Litman 2015.) One study found that the external costs of sprawl are around \$500 billion annually and \$650 billion internally. (*Id.*) Sprawl also has significant equity implications—“the abandonment of the metropolitan core leaves inner cities and first-ring suburbs struggling to provide adequate services with an eroded tax base even as growth continues on the periphery.” (Belzer 2002.)

The Draft Plan is also correct that “[u]rban sprawl generally requires expensive and expansive infrastructure networks that drain resources and contribute significantly to greenhouse gas emissions.” (Draft Plan at 60.)

Unfortunately, with the exception of Supervisor Kuehl, the Board has not shown they are serious about curbing urban sprawl. County supervisors just approved one of the biggest urban sprawl projects in California history last month, the 12,000-acre Centennial Specific Plan, on remote wildlands in the northern corner of the County. The Center informed the County that Centennial would result in less investment in existing communities and—as observed by the developer’s own consultants—draw demand away from existing communities in Santa Clarita and San Fernando. The development would also require the construction of a new six-lane freeway (the Northwest 138 Corridor “Improvement Project”), at an initial cost to taxpayers of \$830 million.

The Board also just approved the 1,300-acre Northlake development over the objection of the Santa Monica Mountains Conservancy (and the Center). That project will pave over pristine wildlands, inhibit wildlife connectivity in the region, and disproportionately contribute to greenhouse gas emissions, traffic, and air pollution.

If the County is serious about ending its historical pattern of approving more development in the county’s diminishing wildlands and rangelands, then it needs to adopt strong enforceable policies to meet this goal. Action 44 is a step in the right direction. The Draft Plan states, “Prohibit the conversion of working lands to residential uses, including farms and rangelands.” (Draft Plan at 60.) Such a policy—if it were actually consistently enforced—would be a strong step forward in protecting the County’s natural resources.

E. The Center Supports the Draft Plan’s Target to Limit Discretionary Development in High Fire Areas.

We support Strategy 3E—limiting development in high fire areas. The science is clear that we can no longer continue building new large-scale development in high fire areas. In Southern California, sprawl developments with low/intermediate densities extending into chaparral and sage scrub habitats that are prone to fire have led to more frequent wildfires caused by human ignitions, like arson, improperly disposed cigarette butts, debris burning, fireworks, campfires, or sparks from cars or equipment (Keeley et al. 1999; Keeley and Fotheringham 2003; Syphard et al. 2007; Syphard et al. 2012; Bistinas et al. 2013; Balch et al. 2017; Radeloff et al. 2018). Human-caused fires account for 95% of all fires in Southern California (Syphard et al.

2013), and homes filled with petroleum-based products, such as wood interiors, paint, and furniture, provide additional fuel for the fires to burn longer and spread farther (Keeley et al. 2007). The most numerous and largest fires in Southern California have been caused by equipment and powerlines in the wildland-urban interface, where housing density is low to intermediate (Syphard and Keeley 2015), and leapfrog developments have been found to have the highest predicted fire risk in the County (Syphard et al. 2013).

More development in high fire areas such as chaparral and sage scrub would lead to a dangerous feedback loop of deadly fires and habitat destruction. These habitats are adapted to infrequent (every 30 to 150 years), large, high-intensity crown fire regimes (Pyne et al. 1996; Keeley and Fotheringham 2001), and if these regimes are disrupted, the habitats become degraded (Keeley 2005, 2006a,b; Syphard et al. 2018). When fires occur too frequently, type conversion occurs and the native shrublands are replaced by non-native grasses and forbs that burn more frequently and more easily, ultimately eliminating native habitats and biodiversity while increasing fire threat over time (Keeley 2005, 2006a,b; Syphard et al. 2009; Safford and Van de Water 2014; Syphard et al. 2018). Thus, placing developments in these high fire-prone areas will lead to more frequent fires while degrading the health and biodiversity of Southern California's ecosystems.

Nonetheless, the "actions" in the Draft Plan do not set forth a clear plan to actually limit development in high fire areas. In particular, while the Countywide "Target" states "no new discretionary development in high hazard areas" by 2025, there is no "action" proposed to meet this target. (Draft Plan at 70.) Instead, as mentioned above, the County has been approving large-scale development such as Centennial and Northlake in high fire areas. By approving entitlements for these projects now despite the science showing such development is dangerous, costly, and environmentally harmful, the County is ensuring large-scale development will continue in fire-prone areas for many years.

F. The Center Strongly Supports Goal 5 and Urges The County To Develop a Wildlife Connectivity Ordinance

The Center strongly supports the Draft Plan's goal of thriving ecosystems, habitats, and biodiversity. (Draft Plan at 78.) To realize this goal, the Plan must consider the issue of wildlife connectivity and the effects of suburban development on wild areas, as explained below.

Habitat Connectivity Is Essential for Wildlife Movement and Biodiversity Conservation.

Habitat connectivity is vital for wildlife movement and biodiversity conservation. Limiting movement and dispersal with barriers (*e.g.*, development, roads, or fenced-off croplands) can affect animals' behavior, movement patterns, reproductive success, and physiological state, which can lead to significant impacts on individual wildlife, populations, communities, and landscapes (Trombulak and Frissell 2000; Tewksbury et al. 2002; Cushman 2006; van der Ree et al. 2011; Haddad et al. 2015; Ceia-Hasse et al. 2018). Individuals can die off, populations can become isolated, sensitive species can become locally extinct, and important ecological processes like plant pollination and nutrient cycling can be lost. In addition, connectivity between high quality habitat areas in heterogeneous landscapes is important to

allow for range shifts and species migrations as climate changes (Heller and Zavaleta 2009, Cushman et al. 2013). Lack of wildlife connectivity results in decreased biodiversity and degraded ecosystems. Thus, preserving and maintaining natural and created corridors is critical for species and habitat conservation in fragmented landscapes (Gilbert-Norton et al., 2010).

Wildlife connectivity and migration corridors are important at the local, regional, and continental scale. Local connectivity that links aquatic and terrestrial habitats would allow various sensitive species to persist, including state- and federally-protected California red-legged frogs (*Rana draytonii*), arroyo toads (*Anaxyrus californicus*), and other species. At a regional scale, medium- and large-sized mammals that occur in Los Angeles County, such as mountain lions (*Puma concolor*), bobcats (*Lynx rufus*), gray foxes (*Urocyon cinereoargenteus*), ring-tailed cats (*Bassariscus astutus*), and mule deer (*Odocoileus hemionus*), require large patches of heterogeneous habitat to forage, seek shelter/refuge, and find mates.

Climate Change Is Likely to Significantly Alter Wildlife Behavior and Movement.

A strong, international scientific consensus has established that human-caused climate change is causing widespread harms to human society and natural systems, and climate change threats are becoming increasingly dangerous. In a 2018 *Special Report on Global Warming of 1.5°C* from the Intergovernmental Panel on Climate Change (IPCC), the leading international scientific body for the assessment of climate change describes the devastating harms that would occur at 2°C warming, highlighting the necessity of limiting warming to 1.5°C to avoid catastrophic impacts to people and life on Earth (IPCC 2018). In addition to warming, many other aspects of global climate are changing. Thousands of studies conducted by researchers around the world have documented changes in surface, atmospheric, and oceanic temperatures; melting glaciers; diminishing snow cover; shrinking sea ice; rising sea levels; ocean acidification; and increasing atmospheric water vapor (USGCRP, 2017).

Climate change is increasing stress on species and ecosystems, causing changes in distribution, phenology, physiology, vital rates, genetics, ecosystem structure and processes, and increasing species extinction risk (Warren et al., 2011). A 2016 analysis found that climate-related local extinctions are already widespread and have occurred in hundreds of species, including almost half of the 976 species surveyed (Wiens 2016). A separate study estimated that nearly half of terrestrial non-flying threatened mammals and nearly one-quarter of threatened birds may have already been negatively impacted by climate change in at least part of their distribution (Pacifiçi et al. 2017). A 2016 meta-analysis reported that climate change is already impacting 82 percent of key ecological processes that form the foundation of healthy ecosystems and on which humans depend for basic needs (Scheffers et al. 2016). Genes are changing, species' physiology and physical features such as body size are changing, species are moving to try to keep pace with suitable climate space, species are shifting their timing of breeding and migration, and entire ecosystems are under stress (Cahill et al., 2012; Chen et al., 2011; Maclean & Wilson, 2011; Parmesan, 2006; Parmesan & Yohe, 2003; Root et al., 2003; Warren et al., 2011). As such, it is imperative that current and future land use planning consider the impacts of climate change on wildlife movement.

Corridor Redundancy Helps Retain Functional Connectivity and Resilience.

Corridor redundancy (*i.e.* the availability of alternative pathways for movement) is important in regional connectivity plans because it allows for improved functional connectivity and resilience. Compared to a single pathway, multiple connections between habitat patches increase the probability of movement across landscapes by a wider variety of species, and they provide more habitat for low-mobility species while still allowing for their dispersal (Mcrae et al., 2012; Olson & Burnett, 2013; Pinto & Keitt, 2008). In addition, corridor redundancy provides resilience to uncertainty, impacts of climate change, and extreme events, like flooding or wildfires, by providing alternate escape routes or refugia for animals seeking safety (Cushman et al., 2013; Mcrae et al., 2008; Mcrae et al., 2012; Olson & Burnett, 2013; Pinto & Keitt, 2008).

Human Development and Associated Noise and Lighting Can Interfere with the Behavior of Local Wildlife Such as Mountain Lions.

Human development and associated noise can degrade adjacent wildlife habitat and behavior. (*See, e.g.,* Slabbekoorn 2008.) For instance, field observations and controlled laboratory experiments have shown that traffic noise can significantly degrade habitat value for migrating songbirds. (Ware et al. 2015.) This finding followed lab results indicating that subjects exposed to 55 and 61 dBA simulated traffic noise exhibited decreased feeding behavior and duration, as well as increased vigilance behavior. (*Id.*) Such behavioral shifts increase the risk of starvation, thus decreasing survival rates. A recent study also highlighted the detrimental impacts of siting development near areas protected for wildlife. The study noted that “Anthropogenic noise 3 and 10 dB above natural sound levels . . . has documented effects on wildlife species richness, abundance, reproductive success, behavior, and physiology.” (Buxton, et al.) The study further noted that “there is evidence of impacts across a wide range of species [] regardless of hearing sensitivity, including direct effects on invertebrates that lack ears and indirect effects on plants and entire ecological communities (e.g., reduced seedling recruitment due to altered behavior of seed distributors).” (*Ibid.*) Moreover, human transportation networks and development resulted in high noise exceedances in protected areas. (*Ibid.*)

There also is strong evidence documenting the effects of human activity specifically on mountain lions. One study found that mountain lions are so fearful of humans and noise generated by humans that they will abandon the carcass of a deer and forgo the feeding opportunity just to avoid humans. (Smith 2017.)³ The study concluded that even “non-consumptive forms of human disturbance may alter the ecological role of large carnivores by affecting the link between these top predators and their prey.” (Smith 2017.) In addition, the study found that mountain lions respond fearfully upon hearing human vocalizations. Another study demonstrates that mountain lions exposed to other evidence of human presence (lighting, vehicles, dogs) will impact mountain lion behavior. (Wilmers 2013.) Other studies documented diet shifts in mountain lions near human development, and recommended minimizing any development in mountain lion habitat. (Smith 2016; *see also* Smith 2015.)

³ *See also* Sean Greene, “How a fear of humans affects the lives of California’s mountain lions,” *Los Angeles Times* (June 27, 2017), available at <http://beta.latimes.com/science/sciencenow/la-sci-sn-pumas-human-noise-20170627-story.html>.

Additional studies similarly documented that mountain lions avoid “urban, agricultural areas, and roads and prefer[] riparian areas and more rugged terrain.” (Zeller 2017; *see also* Vickers 2015.) One study found that over half (55 percent) of radio collared mountain lions in urban areas did not survive, and the majority were killed by humans either by vehicle strikes or using depredation permits. (Vickers 2015.) As such, the Plan should include policies to minimize development in open space areas, as “edge effects” from such development can interfere with animal behavior and movement.

Creating and Enhancing Wildlife Crossings Is Critical to Maintaining Healthy Ecosystems.

We recommend that the Draft Plan include stronger policies to promote wildlife movement and/or include a goal to develop a county wildlife connectivity ordinance. Enhanced connectivity helps sustain functional ecosystems and ensure public safety. Although natural, existing corridors in fragmented landscapes have been shown to have more wildlife movement compared to created corridors (Gilbert-Norton et al., 2010), crossing structures combined with setbacks at the entrances and exits are useful as retroactive restoration in areas where existing roads have high incidence of wildlife vehicle conflict or where species movement has been severely impacted. When appropriately implemented, wildlife crossing infrastructure has been shown to improve wildlife permeability and reduce wildlife vehicle collisions (Bissonette & Rosa, 2012; Dodd Jr. et al., 2004; Dodd et al., 2012; Kintsch et al., 2018; Sawaya et al., 2014; Sawyer et al., 2012).

Outside of California many other states and jurisdictions have been proactively addressing wildlife connectivity issues. For example, Arizona, Colorado, and Wyoming have seen 80-96% reductions in wildlife vehicle collisions while gradually increasing the level of wildlife permeability over time (it appears that some species take more time than others to adapt to crossings) on sections of highways where they have implemented wildlife crossing infrastructure, such as underpasses, culverts, overpasses, wildlife fencing, and escape ramps (Dodd et al., 2012; Kintsch et al., 2017; Kintsch et al., 2018; Sawyer et al., 2012). Utah just completed the state’s largest wildlife overpass at Parleys Canyon for moose, elk, and deer. Washington State is about to complete its largest wildlife overpass on I-90, which is anticipated to provide habitat connectivity for a wide variety of species between the North and South Cascade Mountains. The overpass cost \$6.2 million as part of a larger \$900 million expansion project that will include multiple wildlife crossings along a 15-mile stretch of highway. Savings from less hospital bills, damage costs, and road closures from fewer wildlife vehicle collisions will make up those costs in a few years (Valdes 2018). State and local officials are actively pursuing these types of projects because of the benefits for wildlife connectivity, public safety, and the economy. And in neighboring Ventura County, the Board of Supervisors recently adopted a first-of-its-kind ordinance to protect wildlife connectivity.

The Draft Plan Should Provide Clear Action Items To Support Wildlife Connectivity

We are concerned that the action items proposed in the Draft Plan are insufficient to support Goal 5. In particular, lacking from the action items is any clear plan for ensuring habitat connectivity within the region.

Instead, it appears that the County has not prioritized this issue. For instance, the County General Plan EIR anticipated a significant adverse effect on wildlife movement.⁴ The California Department of Fish and Wildlife (“CDFW”) urged the County to develop mitigation opportunities for wildlife connectivity, since such “opportunities for wildlife corridors and nursery sites are best established during large scale planning efforts such as this General Plan.” CDFW noted that “Wildlife corridor areas can be delineated and set aside in the General Plan for current and future conservation efforts. An assessment could be placed on development within the Project area to secure the acquisition of these critical linkages and sites, therefore reducing impacts to wildlife corridors and nursery sites and ensuring biological diversity.”⁵ The County did not implement CDFW’s recommendations.

The Plan should include a goal to develop a wildlife connectivity ordinance. Moreover, while the proposed “actions” to support Goal 5 are all helpful measures, more is needed. The Plan should incorporate policies that support an “urban growth boundary.” Urban growth boundaries have been used in other jurisdictions as a tool to encourage development in or near existing communities while leaving natural areas undeveloped. Without a clearly defined urban growth boundary, developers will continue to propose—and the Board will continue to approve—development in wild and fire-prone areas, which will further inhibit wildlife connectivity while increasing traffic and air pollution.

G. The Center Supports Goals 7 and 8 and Encourages Stronger Policies To Reduce VMT.

We support Goals 7 and Goal 8—a fossil fuel-free LA County with convenient, safe and affordable transportation that reduces car dependency. However, the targets and associated actions do not include sufficiently ambitious goals to reduce vehicle miles travelled (“VMT”). The Draft Plan’s aims for “[a]t least 15% of all trips will be by foot, bike, micromobility, or public transit.” (Draft Plan at 108.) This means that even if this target is met, in six years 85 percent of trips in the County will still be by car. The Draft Plan should call for much stronger measures to reduce single occupancy vehicle trips and VMT. The best way to do this is to limit development in areas far from existing cities that generate high VMT and limit new freeway development, which induces additional VMT.

The December 2018 Technical Advisory issued by the Governor’s Office of Planning and Research (the “VMT Report”)⁶ contains helpful guidance and analysis that could be

⁴ County of Los Angeles, *Los Angeles County General Plan Update Draft Environmental Impact Report* (June 2014), available at http://planning.lacounty.gov/assets/upl/project/gp_2035_deir.pdf.

⁵ County of Los Angeles, *Los Angeles County General Plan Update Final Environmental Impact Report* (March 2015), available at http://planning.lacounty.gov/assets/upl/project/gp_2035_lac-gpu-final-eir-final.pdf.

⁶ The VMT Report is available at http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

incorporated into the Draft Plan. For instance, the VMT Report states that land use decisions to reduce GHG emissions associated with the transportation sector are crucial in order to meet the GHG reductions set forth in SB 375. (VMT Report at 3.) The VMT Report further notes that California cannot meet its climate goals without curbing single-occupancy vehicle activity; land use patterns and transportation options will need to change to support reductions in VMT. (*Id.* at 10.) The VMT Report also proposes a “per capita” or “per employee” threshold of 15 percent below existing development as a reasonable threshold. (*Id.* at 10.) The VMT Report reiterates the conclusion of the California Air Resources Board that “there is a gap between what SB 375 can provide and what is needed to meet the State’s 2030 and 2050 goals.” (*Id.*)

The VMT Report confirms that VMT-intensive development impacts human health and the environment: “Human health is impacted as increases in vehicle travel lead to more vehicle crashes, poorer air quality, increases in chronic diseases associated with reduced physical activity, and worse mental health. Increases in vehicle travel also negatively affect other road users, including pedestrians, cyclists, other motorists, and many transit users. The natural environment is impacted as higher VMT leads to more collisions with wildlife and fragments habitat. Additionally, development that leads to more vehicle travel also tends to consume more energy, water, and open space (including farmland and sensitive habitat). This increase in impermeable surfaces raises the flood risk and pollutant transport into waterways.” (VMT Report at 3.) As such, if the County took strong steps to reduce VMT, it would have co-benefits of better air quality, decreased chronic disease, decreased wildlife-vehicle collisions, and less habitat fragmentation.

The VMT Report further states that roadway expansion projects can induce substantial VMT such that the environmental reviews should incorporate quantitative estimates of induced VMT. (VMT Report at 23.) The VMT Report explains that “[b]uilding new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, typically induces additional vehicle travel.” (*Id.* at 24.) The Plan should thus contain policies to discourage unnecessary highway development and instead focus infrastructure resources on alternative transportation projects.

H. Conclusion

Thank you for the opportunity to submit comments on the Draft Plan. Again, the Center strongly supports the goals of the Draft Plan. But if the goals in the plan are not supported by clear and enforceable policies, then the final Plan will be ineffective in achieving these goals.

Los Angeles County’s traffic jams, air pollution, fragmented wildlife habitat, and diminishing wildlands are a legacy of poor planning decisions made by local officials, often made under pressure from profit-driven developers. Unfortunately Los Angeles County and its Board have continued to approve costly, dangerous, and environmentally-damaging development despite (1) strong public opposition and (2) science confirming that such development is inappropriate in light of the climate crisis, extinction crisis, and the risks of building in fire-prone landscapes.

The Center urges the Chief Sustainability Office and Board to use this Plan as a means to establish a new vision for Los Angeles County that supports healthy communities and healthy wildlands. For such a vision to become reality, it must be supported by clear, binding, and legally enforceable policies. As long as such policies are vague or absent, developers will continue proposing—and officials will likely keep approving—projects that take the county in the wrong direction.

Please do not hesitate to contact the Center at the number or email listed below.

Sincerely,



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(Attached on CD)

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Attachment 2

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2 Superior Court for the County of Sonoma
3 3035 Cleveland Avenue, Suite 200
4 Santa Rosa, CA 95403
5 Telephone: (707) 521-6729

FILED
SUPERIOR COURT OF CALIFORNIA
COUNTY OF SONOMA

JUL 20 2017

BY M. [Signature]
Deputy Clerk

8 SUPERIOR COURT FOR THE STATE OF CALIFORNIA
9 COUNTY OF SONOMA

11 CALIFORNIA RIVERWATCH,
12 Petitioner,
13 v.
14 COUNTY OF SONOMA, ET AL.
15 Defendants.
16

Case No.: SCV-259242
ORDER GRANTING PETITION
FOR WRIT OF MANDATE

18 This matter was tried to the court on March 23, 2017, the Honorable Nancy Case
19 Shaffer presiding. The Law Office of Jack Silver and Jerry Bernhaut and Jack Silver
20 appeared on behalf of Petitioner; the Office of Sonoma County Counsel and Bruce Goldstein
21 and Verne Ball appeared on behalf of Respondent Sonoma County Regional Climate
22 Protection Authority. At the conclusion of the hearing, the court ordered further briefing.
23 The matter was deemed submitted on April 21, 2017, when all briefs were submitted.

24 I. SUMMARY OF RULING

25 The court finds that the Sonoma County Regional Climate Protection Authority's Final
26 Programmatic EIR ("the PEIR") for Climate Action 2020 and Beyond, its Climate Action
27 plan ("CAP") and the County of Sonoma's approval of the CAP violate CEQA, in that the
28 inventory of greenhouse gas emissions is based on insufficient information; the PEIR fails to

1 include effectively enforceable, clearly defined performance standards for the mitigation
2 measures regarding Green House Gas ("GHG") emissions, identified as "GHG Reduction
3 Measures;" and fails to develop and fully analyze a reasonable range of alternatives.

4 Accordingly, the approval of the PEIR was a prejudicial abuse of discretion by
5 Respondent. Given the lack of information and other material defects, as a matter of law the
6 PEIR cannot fulfill its basic CEQA purpose as an information document.

7 The court finds that there is insufficient information in the administrative record to
8 support the factual conclusion that the CAP will achieve its fundamental purpose of reducing
9 Respondent's countywide GHG emissions to the stated target of 25% below 1990 levels by
10 2020.

11 **I. FACTS**

12 Petitioner seeks a writ of mandate overturning Respondent's certification and of a
13 Final Programmatic EIR (the PEIR) for its Climate Action Aplan (CAP) and the approval of
14 the CAP on the grounds that the approvals violate CEQA.

15 **A. The Project**

16 The CAP Project is a planning-level document to guide analysis of the greenhouse gas
17 (GHG) impacts of future projects in the county.

18 In 2006, the California legislature passed AB 32, the Global Warming Solutions Act
19 (the Act) which, among other things, establishes a statewide goal of achieving 1990-level
20 GHG impacts by 2020.

21 CEQA Guideline 15183.5 allows agencies to adopt an overall long-range plan such as
22 a general plan or similar plan governing GHG analysis of subsequent projects. Respondent
23 adopted the CAP in accord with Guideline 15183.5 as a method of providing an overall *tiered*
24 *analysis* of GHG impacts in subsequent projects as a method of complying with the Act's
25 mandate. (1 AR 4, 10.)
26
27
28

1 **B. The Petition for Writ of Mandamus**

2 Petitioner argues that the EIR fails to provide an accurate description of the existing
3 conditions or a means for calculating GHG emissions; that the PEIR contains inadequate
4 mitigation measures, alternatives analysis, or response to public comments.

5 Respondent opposes the petition, contending that Petitioner relies on non-existent
6 requirements in 15183.5; that Petitioner fails to discuss the substantial evidence in the record,
7 that the EIR sufficiently discusses existing conditions; that the PEIR properly discloses
8 methodology; that the CAP is not a mitigation measure and does not need to contain
9 mitigation measures; that substantial evidence supports the CAP emissions reduction
10 estimates; that the alternatives analysis complies with CEQA; that Petitioner failed to exhaust
11 administrative remedies on the responses to comments; and that Petitioner has demonstrated
12 no prejudicial error.

13 **II. ANALYSIS**

14 **A. Request for Judicial Notice**

15 The court grants, in full, Respondents' request to take judicial notice of certain
16 government and regulatory documents, including a statement from the Natural Resources
17 Agency on amendments to the Guidelines regarding GHG emissions; the California Air
18 Resources Board ("CARB") Climate Change Scoping Plan; the CARB draft 2030 Target
19 Scoping Plan Update; the County of Napa CAP; Guideline 15183.5, AB32, and SB 97; and
20 the lodgment of the record in this case.

21 **B. CEQA**

22 An EIR is required for a project which substantial evidence indicates may have a
23 significant effect on the environment. (Guidelines for the Implementation of CEQA
24 (Guidelines), 14 CCR section 15063(b)¹; PRC sections 21100, 21151.) EIRs are, in the words
25

26
27
28 ¹These are at 14 Cal Code Regs §§ 15000, *et seq.* Courts should at a minimum afford great weight to the Guidelines except when a section is clearly unauthorized or erroneous under CEQA. *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal. (Laurel Heights I)* (1988) 47 Cal.3d 376, 391, fn 2; *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1315.

1 of the California Supreme Court, “the heart of CEQA.” *Laurel Heights Improvement Assn. v.*
 2 *Regents of the University of California* (1988) 47 Cal.3d 376, 392 (*Laurel Heights I*).

3 The ultimate mandate of CEQA is “to provide public agencies and the public in
 4 general with *detailed information* about the effect [of] a proposed project” and to minimize
 5 those effects and choose possible alternatives. (emphasis added) (PRC 21061.) The public
 6 and public participation hold a “privileged position” in the CEQA process based on
 7 fundamental “notions of democratic decision-making.” (*Concerned Citizens of Costa Mesa,*
 8 *Inc. v. 32nd District Agricultural Association* (1986) 42 Cal.3d 929, 936.)

9 As a fundamental benchmark that generally applies to all issues in CEQA the court, is
 10 that the court, in considering an issue, should look to see if “the public could discern... the
 11 ‘analytic route the... agency traveled from evidence to action.’” (See *Al Larson Boat Shop*
 12 *Inc. v. Bd. of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 749; see also *Topanga Assn.*
 13 *for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 513-514, 522.)

14 The burden of investigation rests with the government and not the public. (*Lighthouse*
 15 *Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1202.)

16 **C. Standard of review**

17 **1. Preliminary Basis for Standard of Review**

18 The standard of review is in dispute here. This dispute arises out of the divergent
 19 characterizations of the issues by the parties.

20 Public Resources Code section 21168 provides that when a court reviews a
 21 determination, finding, or decision of a public agency, "as a result of a proceeding in which
 22 by law a hearing is required to be given, evidence is required to be taken and discretion in the
 23 determination of facts is vested in a public agency ... the court shall not exercise its
 24 independent judgment on the evidence but shall only determine whether the act or decision is
 25 supported by substantial evidence in the light of the whole record." However, review is *de*
 26 *novo* when the court must determine whether the agency has prejudicially abused its
 27 discretion either by failing to proceed in the manner required by law or by reaching a decision
 28 that is not supported by substantial evidence. (*Laurel Heights I, supra* 47 Cal.3d 392, fn.5.)

1 “[A] reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on
 2 whether the claim is predominantly one of improper procedure or a dispute over the facts.”
 3 *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40
 4 Cal.4th 412, 435 (“*Vineyard*”).

5 As the court explained in *Vineyard*:

6 [A]n agency may abuse its discretion under CEQA either by failing to proceed in the
 7 manner CEQA provides or by reaching factual conclusions unsupported by substantial
 8 evidence. (§21168.5.) Judicial review of these two types of error differs significantly:
 9 while we determine de novo whether the agency has employed the correct procedures,
 10 “scrupulously enforc[ing] all legislatively mandated CEQA requirements” (*Citizens of*
 11 *Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564...), we accord greater
 12 deference to the agency's substantive factual conclusions. In reviewing for substantial
 13 evidence, the reviewing court “may not set aside an agency's approval of an EIR on
 14 the ground that an opposite conclusion would have been equally or more reasonable,”
 15 for, on factual questions, our task “is not to weigh conflicting evidence and determine
 16 who has the better argument.”(*Laurel Heights I, supra*, 47 Cal.3d at p. 393....)²

17 While courts must give deference as to substantive factual decisions, courts demand
 18 strict compliance with “legislatively mandated CEQA requirements.” (*Citizens of Goleta*
 19 *Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (*Goleta II*.) A Respondent is entitled
 20 to no deference where the law has been misapplied, or where the decision was based on “an
 21 erroneous legal standard.” (*East Peninsula Educ. Council, Inc. v. East Peninsula Unif. Sch.*
 22 *Dist.* (1989) 210 Cal.App.3d 155, 165.)

23 Courts must ‘determine de novo whether the agency has employed the correct
 24 procedures, “scrupulously enforc[ing] all legislatively mandated CEQA requirements”....’
 25 (*Vineyard Area Citizens for Responsible Growth, supra*, 40 Cal.4th 435, citing *Goleta II*, 52
 26 Cal.3d at 564.) *Failure to include required information is a failure to proceed in the manner*
 27

28

² *Laurel Heights I* is *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 400 (*Laurel Heights I*)

1 required by law and demands strict scrutiny. (*Sierra Club v. State Bd. of Forestry* (1994) 7
 2 Cal.4th 1215, 1236; *Vineyard, supra*, 40 Cal.4th at 435.) The court reviews the PEIR here de
 3 novo.

4 Nevertheless, agency actions are presumed to comply with applicable law unless the
 5 petitioner presents proof to the contrary. (Evid. Code § 664; *Foster v. Civil Service*
 6 *Commission of Los Angeles County* (1983) 142 Cal.App.3d 444, 453.) The petitioner in a
 7 CEQA action thus has the burden of proving that an EIR is insufficient. (*Al Larson Boat*
 8 *Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 740.)

9 **2. Standard of Review: Substantial-Evidence Test**

10 The substantial-evidence test applies to substantive issues in a decision certifying an
 11 EIR. The court must uphold the decision if it is supported by substantial evidence in the
 12 record as a whole. (*Bowman v. City of Petaluma* (1986) 185 Cal.App.3d 1065, 1075; see
 13 *River Valley Preservation Project v. Metropolitan Transit Dev. Bd.* (1995) 37 Cal.App.4th
 14 154, 166; see *Santa Teresa Citizen Action Group v. City of San Jose* (2003) 114 Cal.App.4th
 15 689, 703. The “substantial evidence” test requires the court to determine “whether the act or
 16 decision is supported by substantial evidence in the light of the whole record.” (*Chaparral*
 17 *Greens v. City of Chula Vista* (1996) 50 Cal.App.4th 1134, 1143; *River Valley Preservation*
 18 *Project v. Metropolitan Transit Develop. Bd.* (1995) 37 Cal.App.4th 154, 168.)

19 When applying the substantial-evidence standard, the court must focus not upon the
 20 “correctness” of a report’s environmental conclusions, but only upon its “sufficiency as an
 21 informative document.”(*Laurel Heights I* 47 Cal.3d at 393.) The findings of an administrative
 22 agency are presumed to be supported by substantial evidence. (*Taylor Bus. Service, Inc. v.*
 23 *San Diego Bd. of Education* (1987) 195 Cal.App.3d 1331.) The court must resolve reasonable
 24 doubts in favor of the findings and decision. (*Id.*)

25 A claim that the EIR lacks *sufficient* information regarding an issue will be treated as
 26 an argument that the EIR is not supported by substantial evidence. (*Barthelemy v. Chino*
 27 *Basin Munic. Water Dist.* (1995) 38 Cal.App.4th 1609, 1620.) The petitioners in *Barthelemy*
 28

1 asserted that it was a failure to proceed in the manner required by law where an EIR did not
 2 include key information. The court rejected that argument.

3 **a) The Definition of “Substantial Evidence”**

4 Substantial evidence is “enough relevant information and reasonable inferences” to
 5 allow a “fair argument” supporting a conclusion, in light of the whole record before the lead
 6 agency. (14 CCR § 15384(a); PRC §21082.2; *City of Pasadena v. State of California* (2nd
 7 Dist.1993) 14 Cal.App.4th 810, 821-822.) Other decisions define “substantial evidence” as
 8 that with “ponderable legal significance,” reasonable in nature, credible, and of solid value.
 9 (*Stanislaus Audubon Society, Inc., v. County of Stanislaus* (1995) 33 Cal.App.4th 144.)

10 Substantial evidence includes facts, reasonable assumptions predicated upon facts,
 11 and expert opinion supported by facts. (PRC §21082.2(c); see also Guidelines 15064(g)(5),
 12 15384.) It does not include argument, speculation, unsubstantiated opinion or narrative,
 13 clearly incorrect evidence, or social or economic impacts not related to an environmental
 14 impact. (Guideline 15384.)

15 **3. Prejudicial Abuse of Discretion**

16 A court may only issue a writ in a CEQA case for an abuse of discretion, including
 17 making a finding without substantial evidence, if the error was *prejudicial*. (*Chaparral*
 18 *Greens v. City of Chula Vista* (1996) 50 Cal.App.4th 1134, 1143.) The court must defer to the
 19 agency’s substantive conclusions and uphold the determination unless. ((Id); see PRC §
 20 21168, 21168.5, *Laurel Heights I, supra*, 47 Cal.3d at 392, fn.5; Remy, et al., Guide to the
 21 California Environmental Quality Act (10th Ed.1999) Chapter XI (D), p.590.)

22 **4. Tiered EIRs**

23 As discussed further below, the PEIR here is a tiered EIR prepared in accordance with
 24 Guideline 15183.5, which specifically allows for preparation of an overall, first-tier EIR and
 25 planning document to govern analysis of GHG emissions and control GHG emissions in order
 26 to comply with the statewide mandates to reduce GHG emissions.

27 A tiered EIR scheme allows an agency to produce a general EIR focusing on an
 28 overall plan or policy and later conduct more limited, narrow subsequent EIR review for

1 individual projects within the broad plan or scope of the original, general EIR. (PRC 21068.5,
 2 21093(a); Guideline 15152; *Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29, 36.)

3 “Tiering” is defined in PRC 21068.5 as:

4 coverage of general matters and environmental effects in an [EIR] prepared for a
 5 policy, plan, program or ordinance followed by narrower or site-specific [EIRs] which
 6 incorporate by reference the discussion in any prior [EIR] and which concentrate on
 7 the... effects which (a) are capable of being mitigated, or (b) were not analyzed... in
 8 the prior [EIR].

9 In other words, it is ‘a process by which agencies can adopt programs, plans, policies, or
 10 ordinances with EIRs focusing on “the big picture” and can use streamlined CEQA review for
 11 individual projects that are consistent with such... [first tier plans]....’ (*Koster v. County of*
 12 *San Joaquin* (3d Dist. 1996) 47 Cal.App. 4th 29, 36.) The later EIRs need not repeat the
 13 analysis or revisit the issues from the original EIR. (Guideline 15385.)

14 Guideline 15152 is the overall provision governing first-tier documents in general and
 15 in its detailed discussion demonstrates clearly what such documents must do, what they must
 16 include, and how they may be used.¹ Environmental impact reports “shall be tiered whenever
 17 feasible, as determined by the lead agency.” (PRC 21093(b).) This “is needed in order to
 18 provide increased efficiency in the CEQA Process. It allows agencies to deal with broad
 19 environmental issues in EIRs at planning stage and then to provide more detailed examination
 20 of specific effects....These later EIRs are excused by the tiering concept from repeating the
 21 analysis of the broad environmental issues examined in the [first tier] EIRs.” (Discussion
 22 following Guideline 15385.)

23 PRC 21094(c) states that “[f]or purposes of compliance with this section, an initial
 24 study shall be prepared to assist the lead agency in making the determinations required by this
 25 section.”

26
 27 **C. GREENHOUSE GAS EMISSIONS**

28 The Global Warming Solutions Act (“the Act”) ‘implements deep reductions in
 greenhouse gas emissions, recognizing that “[g]lobal warming poses a serious threat to the

1 economic well-being, public health, natural resources, and the environment of California...”
 2 (Health & Saf.Code, § 38501, subd. (a).) Through this enactment, the Legislature has
 3 expressly acknowledged that greenhouse gases have a significant environmental effect.’
 4 (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 91
 5 (*CEB*)). Guideline 15183.5 governs tiering and streamlining the analysis of GHG
 6 emissions.ⁱⁱ Subdivision (b) sets forth the specific things such a plan should do.

7 **1. The Role of the CAP in Subsequent GHG Analysis**

8 A key issue is the ultimate role this CAP will play in subsequent GHG analysis of
 9 future projects. Here neither party clearly addresses the intended role and effect of the CAP
 10 in the review of subsequent projects.

11 The CAP at 1013-1016 generally indicates that the CAP is intended to eliminate any
 12 need to conduct any GHG analysis in future discretionary projects that comply with the CAP.
 13 Specifically, the introduction to the checklist of standards and measures, states that:

14 Discretionary projects that utilize the checklist, as modified by the individual agency,
 15 and can demonstrate consistency with all applicable mandatory local or regional
 16 measures in the CAP, can conclude that their impacts related to [GHG] emissions
 17 would be less than significant under CEQA because the project would be consistent
 18 with a qualified GHG reduction plan under... Guidelines Section 15183.5.

19 The introduction then quotes 15183.5(b) and (b)(2) in part as follows:

20 (b) Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a
 21 project's incremental contribution to a cumulative effect is not cumulatively
 22 considerable if the project complies with the requirements in a previously adopted
 23 plan or mitigation program under specified circumstances.

24 ...

25 (b)(2) A plan for the reduction of greenhouse gas emissions, once adopted following
 26 certification of an EIR or adoption of an environmental document, may be used in the
 27 cumulative impacts analysis of later projects. An environmental document that relies
 28 on a greenhouse gas reduction plan for a cumulative impacts analysis must identify

1 those requirements specified in the plan that apply to the project, and, if those
 2 requirements are not otherwise binding and enforceable, incorporate those
 3 requirements as mitigation measures applicable to the project.

4 It reiterates that the ‘significance threshold for projects using the checklist for streamlining is
 5 “consistency with an applicable plan for the reduction of [GHG] emissions meeting the
 6 requirements of...15183.5” ’ All of this indicates an intent that a future project complying
 7 with this CAP and its standards and measures need include no independent GHG analysis.

8 **2. Respondent’s Contention That Petitioner Imposes Non-Existent Requirements**

9 Respondent argues, that Petitioner is improperly trying to impose requirements on the
 10 CAP that do not exist in Guideline 15183.5. This argument is expressly stated at the start of
 11 its brief and is repeated throughout its papers. This argument is itself groundless; it is
 12 contrary to the fundamental purpose of CEQA requirements.

13 First, Respondent contends that the Guideline merely gives a list of what such a plan
 14 “should” do; not what it “must” do. Although the Guideline does only state what such a plan
 15 “should” include, (see end note ii, Guideline 15183.5), it expressly states that it is a tiering
 16 mechanism and that it must comply with the standards for first-tier programs or plan EIRs. It
 17 is titled “Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.” (Emphasis
 18 added.) It begins by explaining that agencies may develop a GHG plan or standards in a plan
 19 using a tiering method, governed by the standards for tiering. It states that agencies *may*
 20 handle GHG analysis:

21 at a *programmatic* [i.e., first-tier] level, such as in a general plan, a long range
 22 development plan, or a separate plan to reduce greenhouse gas emissions. *Later*
 23 project-specific environmental documents *may tier from* and/or incorporate by
 24 reference that existing programmatic review. Project-specific environmental
 25 documents *may* rely on an EIR containing a programmatic analysis of greenhouse gas
 26 emissions as provided in *section 15152 (tiering), 15167 (staged EIRs) 15168*
 27 *(program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific*
 28 *Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).*

1 (emphasis added.)

2 As noted above, the CAP also makes it clear that, as a first-tier document, it is to be
 3 used in such a manner that, if complied with, will excuse the analysis of a future project from
 4 revisiting GHG emissions. Therefore, the CAP, and any such plan prepared under 15183.5,
 5 must meet the requirements for all first-tier documents and thus must impose effectively
 6 enforceable requirements and measures with defied performance standards.

7 Second, although Respondent is correct that the requirements on which Petitioner
 8 relies are not necessarily in the Guideline itself, they are applicable to *all* CEQA review and,
 9 specifically, to first-tier documents, as explained above. Petitioner's further arguments, such
 10 as that the CAP must provide a clear, complete, and accurate GHG "inventory," i.e., the
 11 existing GHG emissions associated with activities in the county, are consistent with a
 12 standard CEQA mandate, which is that an environmental document must present clear,
 13 meaningful information sufficient to allow the agency and public to make an intelligent,
 14 informed decision, or, stated another way, sufficient to make clear the analytic route of the
 15 agency. (*Concerned Citizens of Costa Mesa, Inc. v. 32nd District Agricultural Association*
 16 (1986) 42 Cal.3d 929, 936; *Al Larson Boat Shop Inc. v. Bd. of Harbor Commissioners,*
 17 *supra*, 18 Cal.App.4th at 749; *Topanga Assn. for a Scenic Community v. County of Los*
 18 *Angeles* (1974) 11 Cal.3d 506, 513-514, 522. Therefore, it must be based on substantial
 19 evidence. (See section C.2., above.)

20
 21 **3. Existing Conditions**

22 Petitioner first argues that the PEIR fails to describe existing conditions accurately
 23 because it limits the range of emissions from vehicles miles traveled (VMT) associated with
 24 land-use activities in the county and to and from 18 nearby regional locations. Petitioner
 25 contends that the baseline or current GHG emissions level associated with the county should
 26 include all VMT for trips associated with activities in the county, not only within the county
 27 and to and from the 18 nearby regional locations used in the PEIR and that Respondent thus
 28 understates the current GHG emissions. Respondent focuses on two general categories of
 VMT omitted from the PEIR: VMTs generated by goods exported from the county to

1 locations beyond (produce, medical equipment, beer, and wine) , and tourist travel to Sonoma
 2 County.

3 **a) CEQA Baselines and Quantifying Current GHG Levels**

4 Ordinarily, an EIR must clearly and consistently describe the baseline, which is
 5 *normally* the *existing* environmental setting or conditions. The existing conditions, at the time
 6 the notice of preparation ("NOP") is published, “normally constitute the baseline physical
 7 conditions by which the lead agency determines whether an impact is significant.” (Guideline
 8 15125(a).) Guideline 15126.2(a) states that the agency “should normally limit its examination
 9 to changes in the existing physical conditions in the affected area as they exist at the
 10 time...environmental analysis is commenced.”

11 Guideline 15183.5(b)(1)(A) sets forth special requirements for GHG first-tier plans
 12 such as the CAP. Such plans are required to “[q]uantify greenhouse gas emissions, both
 13 existing and projected over a specified time period, resulting from activities within a defined
 14 geographic area.”

15 Respondent notes that the ordinary requirements governing determination of the
 16 “baseline” apply where there is a project that may alter this in of itself in order to determine
 17 the extent of any impact which a project will have. (See Guideline 15126.2(a).)

18 **b) VMT Data**

19 The CAP explanation of how it determined the GHG inventory is found at AR 1050,
 20 et seq. It used 2010 data because that year includes largely complete or complete activity data
 21 for all sectors as needed to calculate GHG levels; this is not challenged by Petitioner. (See
 22 AR 1052; Memorandum of Points and Authorities in Support of Petition for Writ of Mandate,
 23 9:1-3.) The response to comment at AR 1084 explains that the VMTs were determined by
 24 considering the travel in the county plus travel between the county and 18 external “traffic
 25 analysis zones” (“TAZ”).

26 Respondent relies on Guideline 15130(b) which provides that studies of cumulative
 27 impacts are guided by “standards of practicality and reasonableness.” According to Guideline
 28 15364, “Feasible” means capable of being accomplished in a successful manner within a

1 reasonable period of time, taking into account economic, environmental, legal, social, and
 2 technological factors.’ Thus, “[a]n evaluation of the environmental effects of a proposed
 3 project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of
 4 what is reasonably feasible The courts have looked not for perfection but for adequacy,
 5 completeness, and a good faith effort at full disclosure.” (Guideline 15151; see also *Citizens*
 6 *to Preserve the Ojai v. County of Ventura, supra*, 176 Cal.App.3d at 429.) Petitioner argues
 7 that an agency is “not required to engage in sheer speculation as to future environmental
 8 consequences [Citations], [but an] EIR [is] required to set forth and explain the basis for any
 9 conclusion that analysis of the cumulative impact of offshore emissions [is] wholly infeasible
 10 and speculative.” (*Citizens to Preserve the Ojai, supra*, 176 Cal.App.3d at 430.)

11 Respondent correctly argues that ultimately GHG emissions must be considered in
 12 light of their cumulative worldwide impact because of their nature. The Supreme Court in
 13 *Center for Biological Diversity v. California Dept. of Fish and Wildlife* (2015) 62 Cal.4th 204,
 14 at 219-220, considered a challenge to an agency’s GHG analysis. The Court explained:

15 [W]e address two related aspects of the greenhouse gas problem that inform our
 16 discussion of CEQA significance.

17 First, because of the global scale of climate change, *any one project's contribution is*
 18 *unlikely to be significant by itself. The challenge for CEQA purposes is to determine*
 19 *whether the impact of the project's emissions of greenhouse gases is cumulatively*
 20 *considerable*, in the sense that “the incremental effects of [the] individual project are
 21 considerable when viewed in connection with the effects of past projects, the effects of
 22 other current projects, and the effects of probable future projects.” (§ 21083, subd.
 23 (b)(2); see Guidelines, § 15064, subd. (h)(1).) “With respect to climate change, an
 24 individual project's emissions will most likely not have any appreciable impact on the
 25 global problem by themselves, but they will contribute to the significant cumulative
 26 impact caused by greenhouse gas emissions from other sources around the globe. *The*
 27 *question therefore becomes whether the project's incremental addition of greenhouse*
 28 *gases is ‘cumulatively considerable’ in light of the global problem, and thus*

1 significant.” (Crockett, Addressing the Significance of Greenhouse Gas Emissions
 2 Under CEQA: California's Search for Regulatory Certainty in an Uncertain World
 3 (July 2011) 4 Golden Gate U. Env'tl. L.J. 203, 207–208 (hereafter Addressing the
 4 Significance of Greenhouse Gas Emissions).)

5 Second, the global scope of climate change and the fact that carbon dioxide and other
 6 greenhouse gases, once released into the atmosphere, are not contained in the local
 7 area of their emission means that *the impacts to be evaluated are also global rather*
 8 *than local. For many air pollutants, the significance of their environmental impact*
 9 *may depend greatly on where they are emitted; for greenhouse gases, it does not.* For
 10 projects, like the present residential and commercial development, which are designed
 11 to accommodate long term growth in California's population and economic activity,
 12 this fact gives rise to an argument that a certain amount of greenhouse gas emissions is
 13 as inevitable as population growth. Under this view, a significance criterion framed in
 14 terms of efficiency is superior to a simple numerical threshold because CEQA is not
 15 intended as a population control measure.

16 (emphasis added.)

17 Consistent with the Supreme Court’s discussion in that case, the EIR here expressly
 18 discusses the global nature of GHG emissions, explaining that “unlike other resource areas
 19 that are primarily concerned with localized project impacts... the global nature of climate
 20 change requires a broader analytic approach. Although this section focuses on GHG
 21 emissions generated as a result of the CAP, the analysis considered them in the context of
 22 potential state, national, and global GHG impacts.” (AR 314.) It also noted global GHG
 23 concentrations. (AR 81, 106, 316.)

24 The PEIR analysis considered VMT for the county and the 18 TAZs in the region, and
 25 only for automobile traffic and “emissions that local governments have primary influence or
 26 control over.” (AR 85.) It did not consider travel by other means such as by airplane or
 27 emissions over which the local entities have no direct control. (AR 85.) The PEIR explained
 28

1 at AR 82 and 85 that it was relying on the International Council for Local Environmental
2 Initiatives (ICLEI) Protocol and that:

3 the ICLEI Community Protocol does not require air travel emissions to be included in
4 the basic emissions necessary for protocol-compliance GHG inventories because it
5 recognizes that local governments have less control over such sources as air travel and
6 that information is often not available to precisely describe an airport's emissions to a
7 specific community.

8 Similarly, it noted that methodologies exist to estimate emissions further afield but associated
9 with local activities but rejected these methodologies because the information might be
10 difficult to obtain or are not "common" approaches. (AR 85-86.) For example, the response
11 to the comment at AR 85-86 stated:

12 [w]hile there are methodologies to estimate upstream emissions..., these
13 methodologies are commonly used to prepare what is known as a "consumption-
14 based" inventory, which estimate the life cycle "carbon footprint" of everything
15 households (and...other consumers) consume. There are also methodologies to
16 estimate "downstream" emissions associated with the transportation, end use, and
17 disposal of goods produced in a jurisdiction, but such methodologies require highly
18 detailed information about the entire downstream supply chain, including the ultimate
19 geographical destination of goods that can be difficult to come by, especially if such
20 data is privately held. While one could estimate emissions using a consumption-based
21 approach of a "downstream" emissions method, these are not the common approach
22 used for community emissions, or national emissions at present, and if used, would
23 make it impossible to compare regional inventories.

24 As a result, the response contends, "nearly every" national, state, and local agency preparing a
25 CAP has used the "activity-based" approach to calculate and define the GHG inventories.
26 (AR 86.) Respondent asserts that by avoiding the methodologies which include upstream or
27 downstream data, and instead using the ICLEI Protocol, the CAP inventory "can be compared
28 to those other communities, using a common standard...." (Ibid.)

1 The question before the court is whether there is information in the record showing
 2 that Respondent might or might not feasibly have included the additional data as Petitioner
 3 contends, or whether Respondent did not need to include it.

4 Respondent's primary argument that it did not need to include additional emissions
 5 estimates is based on its assertion that CEQA only requires an agency to do what is feasible,
 6 and further that it need not, and should not, engage in speculation over data that is
 7 unknowable. The basic that a public agency is only required to do what is feasible, discussed
 8 above, is correct, but Respondent has not persuasively shown that it defeats Petitioner's
 9 arguments regarding the need for more information about MVT. The response to comments
 10 at AR 84-86 expressly admits that there are methodologies to quantify the additional sources
 11 of GHG emissions Petitioner identifies, but did not use them because they are not
 12 "commonly" used or the information "can be difficult to come by." This argument does not
 13 establish that Respondent had substantial evidence to support its approval.

14 The record, including the admissions in the PEIR shows that Respondent had a
 15 feasible ability to include the additional GHG data. Respondent compares the data used in
 16 this CAP to that used by other agencies. (AR 86; generally AR 84-86.) This is a logical
 17 explanation for employing the ICLEI Protocol used, but it does not demonstrate that it was
 18 "infeasible" to obtain the additional MVT data, especially given that Respondent
 19 acknowledges that the methodologies exist.

20 Had the EIR explained that it was unable to obtain the necessary information, or that
 21 there were no methodologies that it could have used to obtain/include it, Respondent's would
 22 have been justified in failing to obtain this data. However, here, Petitioner complains that
 23 Respondent appears merely to have avoided including greater, more complete, information
 24 based on the assumption that it would be "too much work."

25 The court grants the petition on this point.

26 **D. MITIGATION MEASURES**

27 Petitioner also argues that Respondent failed to adopt "definite, clearly defined and
 28 enforceable" mitigation measures. It contends that at least some of the mitigation measures

1 and standards it sets forth are unclear, vague, and not fully enforceable. Petitioner points out
 2 that the EIR concludes that the CAP would be “beneficial” and would thus support applicable
 3 regulatory plans for reducing GHG emissions, so, it contends, no mitigation for GHG
 4 emissions is necessary. (AR 204.)

5 Respondent argues that the CAP is not intended as a mitigation measure. No
 6 mitigation is needed because it is a plan to reduce GHG emissions in subsequent projects.

7 What Petitioner contends is not that the CAP and EIR need to adopt mitigation
 8 measures for the CAP itself, but instead that the CAP, in setting forth purported mitigation
 9 measures for future analysis and handling of GHG emissions, fails to present sufficient clearly
 10 defined and enforceable mitigation measures and standards.

11 Respondent points out this is not a “project” in the sense of an activity that will do
 12 anything that might create GHG emissions but instead is a plan for handling analysis and
 13 mitigation of GHG emissions in future projects. Therefore, there is clearly nothing about this
 14 Project to mitigate. Petitioner's contention that the PEIR should imposing sufficiently defined
 15 and enforceable mitigations measures, is a different issue.

16 Guideline 15183.5(b)(1)(D) and (E) are instructive. Subdivision (D) states that the
 17 plan should “[s]pecify measures or a group of measures, including performance standards,
 18 that substantial evidence demonstrates, if implemented on a project-by-project basis, would
 19 collectively achieve the specified emissions level. Subdivision (E) states that the plan should
 20 “[e]stablish a mechanism to monitor the plan's progress toward achieving the level and to
 21 require amendment if the plan is not achieving specified levels.” (Emphasis added.)
 22

23 **1. Role and Purpose of Mitigation Measures in CEQA**

24 Mitigation measures are needed, even required, where a project may have a significant
 25 impact and the purpose of the measures is to reduce any impact to less than significant. (PRC
 26 21003.1(b); Guideline 15002(a)(3).)

27 **2. Deferral of Mitigation**

28 In general, it is improper for an agency to rely on *deferred* mitigation. (*Sundstrom v.*
County of Mendocino (1988) 202 Cal.App.3d 296, 306; *Defend the Bay v. City of Irvine*

1 (2004) 119 Cal.App.4th 1261, 1275-1276.) An agency cannot find a significant impact to be
 2 mitigated to a less-than-significant level based on a deferred mitigation measure. (*Sundstrom*
 3 *v. County of Mendocino, supra*, 202 Cal.App.3d at 306. It is a violation of CEQA when an
 4 agency “simply requires a project applicant to obtain a biological report and then comply with
 5 any recommendations that may be made in the report. [Citation.]” (*Defend the Bay v. City of*
 6 *Irvine* (2004) 119 Cal.App.4th 1261, 1275; see also *Endangered Habitats League, Inc. v.*
 7 *County of Orange* (2005) 131 Cal.App.4th 777, 793.)

8 “Deferral of the specifics of mitigation is permissible where the local entity commits
 9 itself to mitigation and lists the alternatives to be considered, analyzed and possibly
 10 incorporated in the mitigation plan.” (*Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th
 11 1261, 1275-1276; see also *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d
 12 1011, 1028-1030.) This applies where “mitigation is known to be feasible, but where the
 13 practical considerations prohibit devising such measures early,” so that “[w]here future action
 14 to carry a project forward is contingent on devising means to satisfy such criteria, the agency
 15 should be able to rely on its commitment as evidence that significant impacts will in fact be
 16 mitigated.” (*Sacramento Old City Assn., supra*, 229 Cal.App.3d at 1028-1029.)

17 Because of the nature of first-tier tier EIRs, in particular, deferral of the specifics of
 18 mitigation measures, as long as they contain clear performance standards, is particularly
 19 appropriate and logical. (See, e.g., *Rio Vista Farm Bureau Center v. County of Solano* (1st
 20 Dist.1992) 5 Cal.App.4th 351 (“*Rio Vista Farm Bureau*”); *Al Larson Boat Shop Inc. v. Bd. of*
 21 *Harbor Commissioners, supra*, 18 Cal.App.4th 729.) In *Rio Vista Farm Bureau*, a first-tier
 22 “program EIR” serving as “primary planning document for hazardous waste management in
 23 the county” was found to contain sufficient mitigation measures adopted as policies to guide
 24 subsequent projects. The court rejected a challenge based on the assertion that the mitigation
 25 measures were “vague, inconclusive, and even inconsistent,” finding the measures sufficient
 26 “given the broad, nebulous scope of the project under evaluation.” (*Rio Vista Farm Bureau,*
 27 *supra*, 5 Cal.App.4th at 376.) The court found that the specificity of mitigation measures
 28

1 should be proportionate to the specificity of the underlying project, which in that case was a
2 broad planning document to guide later site-specific projects.

3 The court in *Coastal Hills Rural Preservation v. County of Sonoma* (2016) 2
4 Cal.App.5th 1234, 1258, upholding the trial court’s order denying a CEQA petition for writ of
5 mandate, explained that although “CEQA usually requires mitigation measures to be defined
6 in advance” and not deferred, “deferral [of mitigation measures] is permitted if, in addition to
7 demonstrating some need for deferral, the agency (1) commits itself to mitigation; and (2)
8 spells out, in its environmental impact report, the possible mitigation options that would meet
9 “specific performance criteria” contained in the report.”

10 In *Sundstrom, supra*, the county required future hydrological studies as conditions of a
11 use permit and required that any mitigation measures that the study suggested would become
12 mandatory. This was held to be improper because the impacts and mitigation measures were
13 not determined.

14 The court in *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359 found an Negative
15 Declaration defective because it improperly relied on deferred formulation of specific
16 mitigation measures. There, the city required the applicant to comply with any existing
17 ordinance protecting the Stephens’ kangaroo rat and allowed the city to require a biological
18 report on the rat and compliance with any recommendations in the report. The court found
19 this to be insufficient because it, like the approval in *Sundstrom*, was based on compliance
20 with a report that had not yet even been performed.

21 By contrast, the court in *Schaeffer Land Trust v. San Jose City Council* (1989) 215
22 Cal.App.3d 612, upheld an Negative Declaration for a general plan amendment for a parcel of
23 land which, regarding traffic issues, required any future development to comply with
24 applicable “level of service” standards. Unlike the other cases mentioned above, here the
25 mitigation measures were delayed because the development and impacts were not concrete,
26 but the mitigation was fixed to set standards which, by definition, ensured that there would be
27 no significant impact. Mitigation with deferred specifics was found to satisfy CEQA where
28 the lead agency had committed to mitigation meeting a specified range of criteria and project

1 approval required the developer to obtain permits and adopt seven itemized measures in
 2 coordination and consultation with relevant agencies. *Defend the Bay, supra*, 1276.

3 In *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th
 4 777, 794, the court found a mitigation measure that required replacement habitat preservation
 5 to satisfy CEQA even though the specifics were not fully determined but where the approval
 6 set forth *specific possibilities and parameters that the mitigation needed to meet*.

7 **3. The Role of the CAP in Subsequent GHG Analysis**

8 The key issue here in determining the sufficiency of mitigation measures is the role
 9 this CAP is intended to play in s GHG analysis of future projects. As noted above, one aspect
 10 of first-tier plans and EIRs is that they may obviate the need for later projects falling within
 11 their ambit to conduct new CEQA review on certain issues where the future projects comply
 12 with the first-tier plan. Any later discretionary project that complies with its criteria, such as
 13 the standards and requirements it imposes, would not need to do further study of GAG
 14 emissions. Accordingly, the standards and requirements the CAP imposes for reducing or
 15 minimizing GHG emissions must be considered mitigation measures for purposes of CEQA
 16 and must comply with the CEQA requirements. This means that they must set forth clearly
 17 defined and enforceable performance standards to be met. Because of the intended
 18 streamlining, Petitioner correctly contends that the performance standards and measures set
 19 forth the PEIR must be clear, definite, and enforceable.
 20

21 Here also, Respondent contends that Petitioner is imposing requirements and standards
 22 that do not exist in Guideline 15183.5. Respondent ignores the fundamental CEQA
 23 requirements which underlie Petitioner's claims. Respondent contends that Guideline 15183.5
 24 does not require mitigation measures for the CAP or within the CAP imposed on future
 25 projects. This position not only conflicts with 15183.5 itself, it is fundamentally contrary to
 26 the principles of CEQA review.

27 It is axiomatic in CEQA that any measures or requirements imposed be sufficiently
 28 defined to be enforceable and that, in the context of tiering, any subsequent project may avoid
 analysis of an issue only if it complies with a first-tier document that satisfies CEQA

1 requirements. As noted above, PRC 21094(a) states that where a prior first-tier EIR has been
 2 certified and applies to a subsequent project, the agency “*need not examine those effects*
 3 *which ... were either (1) mitigated or avoided... as a result of the prior [EIR] or (2) examined*
 4 *at a sufficient level of detail in the prior [EIR] to enable those effects to be mitigated or*
 5 *avoided by site specific revisions, the imposition of conditions, or by other means....”*

6 Accordingly, to obviate the need to address an issue or impact as part of a later project’s
 7 CEQA review, a first-tier plan or program document and EIR must sufficiently analyze that
 8 issue or impact to determine that compliance with the document and its mitigations will
 9 mitigate or avoid the impact. The mitigation requirements in a first-tier document for
 10 avoiding or mitigating the impact *must* include performance standards that are mandatory and
 11 include specific, and effectively enforceable performance standards. (*Coastal Hills Rural*
 12 *Preservation v. County of Sonoma* (2016) 2 Cal.App.5th 1234, 1258.)

13 The prior discussion of Guideline 15183.5 addresses the impact of tiering
 14 mechanisms. Again, the CAP, and any such plan prepared under 15183.5, must meet the
 15 requirements for all first-tier documents and thus must impose effectively enforceable
 16 requirements and measures with defied performance standards.

17 Further, Guideline 15183.5 *does require the CAP to impose mitigation measures on*
 18 *future projects.* As both Respondent and the CAP itself acknowledge, and as noted above,
 19 subdivision (b) expressly states that “a lead agency may determine that a project's incremental
 20 contribution to a cumulative effect is not cumulatively considerable *if* the project complies
 21 with *the requirements* in a previously *adopted plan or mitigation program* under specified
 22 circumstances.” This plan or mitigation program, i.e., the CAP, according to (b)(2), “*may be*
 23 *used in the cumulative impacts analysis of later projects”* which clearly means that it need not.
 24 However, (b)(2) continues to state that *if it is* so used for a later project, that project must
 25 comply with the requirements and mitigation measures from the CAP. Once again, in the
 26 Guideline’s words, a later project that in fact “relies on [the CAP] for a cumulative impacts
 27 analysis *must identify those requirements specified in the plan* that apply to the project, and, *if*
 28

1 *those requirements are not otherwise binding and enforceable, incorporate those*
 2 *requirements as mitigation measures....”*

3 In countering Petitioner's complaint that some of the so-called measures or standards
 4 are too vague or loose or ill-defined to be properly enforceable, Respondent asserts that this
 5 will be “cured” because Guideline 15183.5(b)(2) states that any requirements that are not
 6 “binding and enforceable” will be incorporated as mitigation measures in the project’s CEQA
 7 document. This “interpretation” does not withstand scrutiny. As explained above, a first-tier
 8 document, in order to be used to avoid revisiting analysis of an issue in a later project, must
 9 have sufficiently analyzed the issue and found any significant impact to be mitigated or
 10 avoided by complying with the document. That means that any requirement, such as
 11 mitigation, must have sufficiently defined, clear, and mandatory performance standards to be
 12 effectively enforceable and to have predictable results. If the requirements or measures are so
 13 ill-defined as to be unenforceable as a practical matter, and effectively meaningless, merely
 14 “incorporating” them into the later project’s CEQA document will obviously not fix that
 15 problem. What the state in the Guideline must mean, therefore, is not that an ineffective
 16 measure may simply be incorporated into a later project’s document, as Respondent asserts,
 17 but that a measure or requirement must be incorporated in the document *if it is not enforced*
 18 *independently, or through some other mechanism.*

19 **4. The Measures in the CAP**

20 The CAP sets forth requirements and standards or mitigation measures at AR 1015-
 21 1048.

22 Respondent primarily argues that under Guideline 15183.5(b)(2), any measure which
 23 the CAP imposes and which is “not otherwise binding and enforceable” must be incorporated
 24 into future projects. As addressed above, this argument is not meritorious. Guideline
 25 15183.5(b)(2) expressly requires that:

26 *“An environmental document that relies on a greenhouse gas reduction plan for a*
 27 *cumulative impacts analysis must identify those requirements specified in the plan that*
 28 *apply to the project, and, if those requirements are not otherwise binding and*

1 *enforceable, incorporate those requirements as mitigation measures* applicable to the
 2 project. *If there is substantial evidence that the effects of a particular project may be*
 3 *cumulatively considerable notwithstanding the project's compliance with the specified*
 4 *requirements in the plan for the reduction of greenhouse gas emissions, an EIR must*
 5 *be prepared for the project.*

6 (emphasis added.)

7 Petitioner singles out three of the specific measures or requirements in the CAP for
 8 discussion as demonstrating a lack of meaningful enforceability and clear standards.

9 **a) 5-R4 (AR 1026)**

10 The first is 5-R4 (AR 1026.) This “trip-reduction ordinance” requires employers with
 11 50+ employees to offer one of several options to employees in order to reduce GHG
 12 emissions: “pre-tax transit expenses, transit or vanpool subsidy, free or low cost shuttle, *or an*
 13 *alternative benefit.*” (Emphasis added.) It is the latter to which Petitioner objects, arguing
 14 that it is vague and undefined either in what it must be like or what it must achieve, so that
 15 there is no way to enforce this. As a result, Petitioner contends, a project could offer as
 16 “alternative benefit” which no-one can at this point predict, and argue that it need not do GHG
 17 analysis because it has “complied” with this measure. Respondent contends that an
 18 alternative of purchasing GHG offsets is considered and this is correct but this is not the
 19 definition of “an alternative benefit,” which is left open and could be anything. Petitioner is
 20 correct on this point.

21 Respondent contended that Petitioner failed to exhaust administrative remedies on this
 22 specific issue.

23 According to PRC section 21177, “[a] person shall not maintain an action or
 24 proceeding unless that person objected to the approval of the project orally or in writing
 25 during the public comment period provided by this division or prior to the close of the public
 26 hearing on the project before the filing of the notice of determination.” This does not,
 27 however, bar an association or organization formed after approval from raising a challenge
 28 which one of its constituent members had raised, directly or by agreeing with or supporting

1 another’s comments. (PRC section 21177(c).) Moreover, someone may file a legal challenge
 2 based on an issue as long as “any person” raised that issue during the review process. PRC
 3 section 21177(a); see *Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 267-
 4 268. It also does not apply to any grounds of which the agency did not give required notice
 5 and for which there was no hearing or opportunity to be heard. PRC section 21177(e).

6 A party challenging decision under CEQA cannot, to exhaust administrative remedies,
 7 rely merely on “general objections” or “unelaborated comments.” *Sierra Club v. City of*
 8 *Orange* (2008) 163 Cal.App.4th 523, 535; *Coalition for Student Action v. City of Fullerton*
 9 (1984) 153 Cal.App.3d 1194, 1197. However, “[l]ess specificity is required to preserve an
 10 issue for appeal in an administrative proceeding than in a judicial proceeding...” *Citizens*
 11 *Association for Sensible Development of Bishop Area v. County of Inyo* (1985) 172
 12 Cal.App.3d 151, 163.

13 Petitioner responds that only the substance of the issue must be raised at the
 14 administrative level, relying on *Save Our Residential Environment v. City of West Hollywood*
 15 (1992) (Cal.App.4th 1745, 1750.) And further that less specificity is required to exhaust an
 16 issue in an administrative proceeding that in a judicial one, relying on *Woodward park*
 17 *Homeowners Assn. v. City of Fresno* (2007) 150 Cal.app.4th 683, 712 and *Brothers Real*
 18 *Estate Group v. City of Los Angeles* (2008) 153 Cal.App.4th 1385, 1395. The court finds that
 19 Petitioner did articulate this as a basic contention in the underlying administrative
 20 proceedings. (AR 66 and AR 67.)

21 **b) 4-L-1 (AR 1024)**

22 Petitioner's attack 4-L-1, at AR 1024, which requires consistency with applicable
 23 “adopted policies” on mixed-use and transit-oriented development, such as zoning codes,
 24 general plans, etc., and states that agencies must “support mixed use [sic] development in
 25 city-centers and transit-oriented development locations through their General Plans, etc.” is
 26 not persuasive. Petitioner contends that this is too vague because “mixed-use” has been
 27 interpreted to allow hotels and tourist destinations built downtown or near rail stations.
 28 Petitioner focuses on one portion of this requirement that is open-ended. Nothing indicates

1 that the type of use that could be allowed in a mixed-use development, whether store,
 2 museum, eatery, office, or hotel, has any bearing on GHG emissions. Petitioner cites no
 3 evidence or explanation in support of this claim and does not explain how this is material.
 4 What matters is that there are clear, adopted standards mandating such development and
 5 Petitioner does not challenge that portion of the measure at all.

6 It is possible that the measure could be found too vague and Petitioner may be
 7 challenging it on that basis as well. Petitioner refers to it when mentioning how an
 8 “undefined alternative... lacks the required specificity” and Petitioner again mentions it on the
 9 following page with reference to “tentative plans” for future mitigation in ill-defined
 10 subsequent regulation to be adopted. This, merely requires each jurisdiction to “identify such
 11 appropriate areas and include unspecified policies and incentives to encourage development
 12 near high-quality transit service.” It requires the jurisdiction to define requirements and
 13 identify potential incentives, giving a list of the types that these “may include,” the last being
 14 “other related items.” Again, this does not give any clear performance standards regarding
 15 how to achieve this or what the parameters are. As Petitioner argues, for the third measure,
 16 the court in *Communities for a Better Environment v. City of Richmond*, 184 Cal.App.4th 70,
 17 92, found a measure insufficiently specific where it required reduction of mobile emission
 18 sources though “transportation smart” development because “reliance on tentative plans for
 19 future mitigation... significantly undermines CEQA’s goals of full disclosure and informed
 20 decision making.” Under this analysis, this measure is also defective.

21
 22 **c) 2-L-1 (AR 1021)**

23 Lastly, Petitioner argues that 2-L-1, at AR 1021, is defective. This measure mandates
 24 that the project “comply with local requirement(s) for rooftop solar PV on new residential
 25 development. It states that each jurisdiction “will define which new development must
 26 provide rooftop solar [PV] by defining qualifying criteria... and the amount of solar
 27 required....” As Petitioner argues, this sets no standards at all, just like 4-L-1, but instead
 28 merely general principles and future possibilities. This violates CEQA.

1 Petitioner further argues that the measures in general do not guarantee any likelihood
2 of implementation. This is clear from the ones discussed above. Petitioner cites 1-R2 as
3 another example. It states that two named agencies “will work with the participating
4 communities to implement energy efficient retrofits. Actions may include: Implementing a...
5 weatherization program, expanding energy efficiency outreach/education campaigns...,
6 promoting the smart grid,” etc. Again, none of this goes beyond stating wishful thinking,
7 good intentions, and an intent to “work” with others. Measures that fall into this category
8 violate CEQA as well.

9 Petitioner also generally attacks the measures as lacking meaningful enforceability.
10 Petitioner also contends that of all of them, only 1-S1 and 1-S2 are actually enforceable
11 because they govern building energy and lighting efficiency, both controlled by state
12 regulation. The court finds a few others in addition to 1-S1 and 1-S2 to be similarly
13 enforceable. These include 1-L1, based on Windsor’s building code, 1-L2, requiring LED
14 lights in new development.

15 Aside from those few, Petitioner is correct that most are not enforceable, either
16 because they are too vague and lacking in meaningful mandatory requirements such as those
17 already discussed, which only “require” some “alternative” that is not specified or governed
18 by set parameters. Others, such as 1-L3 through 2-L2, state mitigation measures but then state
19 that these are “voluntary,” or “encouraged,” or only necessary where “applicable” based on
20 circumstances or criteria that are not defined. Others again rely on other jurisdictions such as
21 the cities creating applicable requirements that in some unspecified manner promote the
22 stated, vague, open-ended policies that lack any parameters or requirements. These are too
23 numerous to list them all here but this general characteristic dominates almost all of the
24 measures from what I have read.

25 Accordingly, the court grants the petition with respect to mitigation. Because the
26 record does not provide adequate information about extraterritorial emissions the agency and
27 the public could not and the court cannot determine whether the CAP would achieve its stated
28 goal to reduce GAG impacts to pre-1990 levels by 2020.

1 **E. ALTERNATIVES**

2 Petitioner asserts that Respondent violated CEQA by adopting as the “environmentally
3 superior alternative” the Zero Net Energy Buildings Alternative because it fails to address
4 GHG emissions from transportation while Respondent declined to evaluate an alternative with
5 a moratorium on, or significant reduction of, new or expanded vineyards, wineries and tourist
6 destinations. (AR 94; 426-427.)

7 Respondent contends that the analysis is sufficient because Petitioner believes that
8 reducing or stopping growth, and in particular growth that involves travel of people and goods
9 to and from the county, is necessary, and Petitioner cannot impose such mandates on R;
10 Respondent considered a range of alternatives; and choosing the moratorium alternative
11 would require the court to “dramatically substitute” its judgment for Respondent's.

12 CEQA requires all EIRs to consider alternatives to the project. (*Friends of the Old*
13 *Trees v. Dept. of Forestry & Fire Protection* (1st Dist.1997) 52 Cal.App.4th 1383, 1393-1395
14 (*Friends of Old Trees*).

15 **1. Importance and Central Role of Alternatives Analysis**

16 PRC section 21002 states that “it is the policy of the state that public agencies should
17 not approve projects as proposed if there are feasible alternatives or feasible mitigation
18 measures available which would substantially lessen the significant environmental effects....”
19 An agency may not approve a project that will result in significant impacts *unless it first finds*
20 *that mitigation measures or alternatives are infeasible*. (PRC section 21081; Guidelines
21 15091, 15093.)

22 The Supreme Court decided that considering alternatives is one of the most important
23 functions of an EIR. (*Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 197.) In fact, “[t]he
24 core of the EIR is the mitigation and alternatives sections.” (*Citizens of Goleta Valley v. Bd.*
25 *of Supervisors* (1990) 52 Cal.3d 553, 564, 566 (*Goleta II*).

26 Without evidence regarding why the alternatives are insufficient to meet the project or
27 CEQA goals, meaningful analysis is impossible. An EIR must “explain in meaningful detail
28 the reasons and facts supporting [the] conclusion.” (*Marin Municipal Water Dist. v. KG Land*

1 *Corp. California* (1991) 235 Cal.App.3d 1652, 1664.) Failure to provide sufficient analysis
 2 or alternatives makes it impossible for the court to “intelligently examine the validity of the...
 3 action.” (*Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d
 4 506, 513-514, 522.)

5 The alternatives must be discussed in the EIR itself, provided for public review, and
 6 subject to analysis, and the agency cannot cure defects by providing analysis in its official
 7 response. (See *Friends of the Old Trees, supra*, 52 Cal.App.4th at 1403-1405.)

8 **2. Authority on Analyzing Alternatives and Feasibility**

9 The discussion should evaluate the relative merits of each alternative 14 CCR
 10 §15126.6(a). Respondents need not analyze or adopt alternatives that are not feasible. 14
 11 CCR ' 15126.6(c), (f); *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553,
 12 564, 566 (*Goleta II*). However, the document *must* consider alternatives that *are* feasible.
 13 *EPIC v. Johnson* (1985) 170 Cal.App.3d 604, 610; *Friends of the Old Trees, supra*, 52
 14 Cal.App.4th 1404.

15 Ultimately, determining if alternatives are suitable involves a three-part test governed
 16 by the “rule of reason” as set forth in Guideline 15126.6. (See *Citizens of Goleta Valley v.*
 17 *Bd. of Supervisors* (1990) 52 Cal.3d 553, 564, 566 (*Goleta II*); *Save San Francisco Bay*
 18 *Association v. San Francisco Bay Conservation and Development Commission* (1992) 10
 19 Cal.App.4th 908, 919.) The analysis must consider alternatives that 1) may “attain most of the
 20 basic objectives of the project,” 2) reduce or avoid the project’s impacts, and 3) are
 21 “potentially feasible.” (Guideline 15126.6(a), (f).)

22 The analysis of alternatives is required to set forth facts and “*meaningful analysis*” of
 23 these alternatives rather than “just the agency’s bare conclusions or opinions.” (*Laurel*
 24 *Heights I, supra*, 47 Cal.3d 376, 404-405; *Goleta II, supra*, 52 Cal.3d 569; *Preservation*
 25 *Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1353.) All analysis must
 26 include “detail sufficient to enable those who did not participate... to understand and to
 27 consider meaningfully” the alternatives. (*Laurel Heights I, supra*, 404-405.)
 28

1 As notes above, “feasible” means able to be “accomplished in a successful manner
 2 within a reasonable period... taking into account economic, environmental, social, and
 3 technological factors.” (PRC section 21061.1.)

4 When the agency determines that alternatives are infeasible, it “shall describe the
 5 specific reasons for rejecting identified...project alternatives.” (Guideline 15091(a), (c).) The
 6 analysis of alternatives is required to set forth facts and “*meaningful* analysis” of these
 7 alternatives rather than “just the agency’s bare conclusions or opinions.” (*Laurel Heights I*,
 8 *supra*, 47 Cal.3d 376, 404-405; *Goleta II, supra*, 52 Cal.3d 569; *Preservation Action Council*
 9 *v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1353.) All analysis must include “detail
 10 sufficient to enable those who did not participate... to understand and to consider
 11 meaningfully” the alternatives. (*Laurel Heights I, supra*, 404-405.)

12 The agency must make findings identifying specific considerations making an
 13 alternative infeasible and the specific benefits of the Project that outweigh the relative harm.
 14 (PRC § 21002.1(b), 21081, Guideline 15092(b); *Preservation Action Council, supra*, 1353.)

15 On the other hand, as usual, the requirement is one of reasonableness and a “crystal
 16 ball” inquiry is not necessary. (*Residents Ad Hoc Stadium Committee v. Bd. of Trustees* (3d
 17 Dist.1979) 89 Cal.App.3d 272, 286.) The key, as with most aspects of an EIR is that the
 18 agency must provide enough information about the analytical path taken to allow the court to
 19 “intelligently examine the validity of the administrative action.” (*Topanga Assn. for a Scenic*
 20 *Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 513-514, 522.) However, no
 21 “ironclad rule” other than the “rule of reason” governs the decision. (Guideline 15126.6(a).)

22 An agency cannot find an alternative infeasible simply because the developer does not
 23 want to do it. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 601.)
 24 In fact, the analysis must include alternatives that are reasonable “even if they substantially
 25 impede the project or are more costly.” (*San Bernardino Valley Audubon Society v. County of*
 26 *San Bernardino* (1984) 155 Cal.App.3d 738, 750; see also *Preservation Action Council v.*
 27 *City of San Jose* (2006) 141 Cal.App.4th 1336.)
 28

1 An EIR or decision thereon also cannot merely state that an alternative is infeasible
 2 simply because it is too expensive or will not lead to sufficient return without providing
 3 supporting analysis. (*Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th
 4 1336.) “The fact that an alternative may be more expensive or less profitable is not sufficient
 5 to show that the alternative is financially infeasible. What is required is evidence that the
 6 *additional costs or lost profitability* are sufficiently *severe as to render it impractical to*
 7 *proceed with the project.*” (*Citizens of Goleta Valley v. Board of Supervisors* (1988) 197
 8 Cal.App.3d 1167, 1181; *Uphold Our Heritage, supra*, 599; (emphasis added).)

9 An alternative should be capable of “substantially lessening” adverse impacts but it
 10 need only have fewer impacts and it need not be impact free. PRC 21002; Guideline
 11 15126.6(a); *Citizens of Goleta Valley v. Board of Supervisors (Goleta II)* (1990) 52 Cal.3d
 12 553, 566.

13 **3. Reasonable Range**

14 An EIR must describe a reasonable range of alternatives to the proposed project or its
 15 location that would feasibly achieve most of the project’s objectives, while reducing or
 16 avoiding any of its significant effects. (Guideline 15126.6(a), (d).)

17 The EIR “shall focus on alternatives... which are capable of avoiding or substantially
 18 lessening any significant effects of the project, even if these alternatives would impede to
 19 some degree the attainment of the project objective, or would be more costly.” (Guideline
 20 15126.6(b).)

21 The EIR must set forth the alternatives necessary to permit a reasoned choice and in a
 22 manner that will allow “meaningful evaluation.” (Guideline 15126.6(a), (d), (f); *Goleta II*;
 23 see also *Laurel Heights I, supra*; see also *San Bernardino Valley Audubon Soc., Inc. v. County*
 24 *of San Bernardino* (1984) 155 Cal.App.3d 738, 750-751 (the detail must allow a reasonable
 25 choice “so far as environmental aspects are concerned.”).)

26 If an EIR excludes certain alternatives, it should identify the alternatives and set forth
 27 the reasons. (*Goleta II, supra*, 569; Guideline 15126.6(b).) The court in determining if the
 28

1 EIR included a reasonable range of alternatives may consider the entire record to determine if
 2 alternatives were properly excluded from consideration. (*Goleta II, supra*, 569.)

3 Alternatives that would eliminate or reduce significant environmental impacts *must* be
 4 considered even if they would cost more or “to some degree” impede attainment of the
 5 project’s objectives. (Guideline 15126.6(b).)

6 **4. Detail of Relevant Decisions on the Adequacy of Alternatives**

7 In *Friends of the Old Trees, supra*, 52 Cal.App.4th 1383, an extreme case, there was
 8 no discussion of alternatives in the versions submitted for public review. The agency argued
 9 that the fact it considered mitigation should suffice, while the real party marked a box
 10 selecting a certain method of cutting. The court also noted that the *public* brought forth “the
 11 only true alternatives,” and that these were discussed only after the document was approved.
 12 (*Friends of the Old Trees, supra*, 52 Cal.App.4th 1405.) The court found the discussion
 13 inadequate. (*Id.*, 1403-1405.)

14 In *Citizens of Goleta Valley v. Board of Supervisors (Goleta I)*, (1988) 197
 15 Cal.App.3d 1167, the EIR considered a smaller hotel to be an economically infeasible
 16 alternative to the proposed hotel at issue. Because the EIR lacked *evidence* that the smaller
 17 hotel was economically infeasible, the court considered it error to deny the writ of mandate.
 18 The court found that although the EIR contained estimated figures of costs, the record did not
 19 reveal any *evidence* which *analyzed* the alternative in terms of comparative costs, comparative
 20 profits or losses, or comparative economic benefit to the project proponent, residents, or the
 21 community at large. (*Id.*, 1180.)

22 The court in *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587,
 23 at 599, addressed a project to demolish an historic mansion in order to construct a new,
 24 smaller single-family residence. The court found that evidence that alternatives of historic
 25 rehabilitation or rehabilitation with a new addition, would cost between \$4.9 million and \$10
 26 million was not substantial evidence that alternatives were not economically feasible since
 27 there was no evidence of the likely cost of a proposed replacement home or average cost of
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1 building the proposed 6,000 square foot home in the city. It also found that whether the
 2 developer wanted to do the alternative was irrelevant to determining if it is not feasible.

3 *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (Arambel and*
 4 *Rose Development, Inc.)* (1994) 27 Cal.App.4th 713, also dealt with alternatives analysis.
 5 The court found, in the context of a proposed housing development, that the discussion of
 6 housing density alternatives was inadequate. The DEIR stated that a lower density would
 7 “lessen the impacts,” but failed to identify which impacts it meant or to what degree. The
 8 court ruled that “[s]uch a bare conclusion without an explanation of its factual and analytical
 9 basis is insufficient.” *Id.*, at 736. The court went on to state:

10 That lower density might not be “economically feasible,” is not sufficient
 11 justification for the failure to give basic information as to density alternatives
 12 which were considered and rejected. Contrary to [respondent’s] argument,
 13 [petitioners] are not required to show there are reasonable alternatives. *It is the*
 14 *project proponent’s responsibility to provide an adequate discussion of*
 15 *alternatives....* If the project proponent concludes there are no feasible
 16 alternatives, it must explain in *meaningful detail* in the EIR the basis for that
 17 conclusion. Thus, even if alternatives are rejected, an EIR *must explain why*
 18 each suggested alternative either does not satisfy the goals of the proposed
 19 project, does not offer substantial environmental advantages or cannot be
 20 accomplished.

21 *Id.*, at 737 (emphasis added).

22
 23 **5. Whether Feasibility Finding Is Necessary**

24 As noted above, PRC sections 21002, 21081, and Guidelines 15091, 15093 together
 25 forbid approval of a project that *will result in significant impacts without first finding that*
 26 *any environmentally superior alternatives are infeasible.* Petitioner argues that Respondent
 27 failed to consider an alternative that is environmentally superior.

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6. The Alternatives Analysis for the CAP

The alternatives analysis is at AR 425-438. The PEIR explains that it developed and analyzed only *one* other alternative, the Carbon Offset Alternative, in addition to the chosen Zero Net Energy Buildings plan and the mandatory no-project alternative. It expressly rejected a growth moratorium, reduced density, greater density, increased Sonoma Clean Power, expanded transit service, 1990 Levels by 2020 (AB32), and 80% Below 1990 Levels by 2020.

The real issue here is whether the Respondent, in rejecting formulating other alternatives, has considered a reasonable range, as required, and whether Respondent has provided sufficient explanation of infeasibility or other reasoning to support not considering other proposed alternatives.

Respondent's analysis is insufficient. Respondent considered almost no range at all, and only one other alternative that essentially is one that does nothing other than to authorize Respondent to buy GHG offsets for all GHG impacts from projects. Although Respondent argues to the contrary, this alternative seems both infeasible and at the same time would not actually do anything to control or limit actual GHG production. As an alternative, this appears to be one of form, but not of substance.

By contrast, the moratorium or reduced-development alternative which Petitioner proposes, and which was presented to Respondent in public comments (see, e.g., AR 93-94, response to comment) along with others noted but rejected without being developed, include real solutions that differ significantly from the chosen CAP. At least some, like the moratorium or growth limit, also address issues of GHG production from travel. While it is logical that some may be infeasible or incompatible with goals of growth, this is not alone, without explanation or support, a basis for not even considering those alternatives, or modified versions. For example, Respondent noted a moratorium on growth of wineries or housing “until the jobs-housing balance in the County is more equitable,” but this does not even address the issues of Petitioner's proposed moratorium, it is arbitrarily limited, and it does not even seem to make much sense. There is no evidence or explanation for what it

1 would be or why Respondent could not consider a similar, but different one, such as Petitioner
 2 proposed. That is the purpose of actually developing and considering alternatives. Given
 3 that there are available alternatives that differ drastically from what Respondent has
 4 considered and given that Respondent has, in effect, considered only one other option that is
 5 perhaps only nominally an alternative, this analysis fails to consider a reasonable range of
 6 alternatives, or even any range at all.

7 The court Grants the petition on this issue.

8 **F. RESPONSE TO PUBLIC COMMENTS**

9 Petitioner next argues that Respondent's response to public comments was insufficient
 10 in violation of Guideline 15088(c).

11 The “evaluation and response to public comments is an essential part of the CEQA
 12 process.” (Discussion following CEQA Guideline 15088.) The final EIR must include
 13 evaluation and responses to all comments received in the public-comment period. PRC
 14 section 21091(d)(2)(A). Guideline 15088 governs responses to comments and subdivision (c)
 15 governs the substance of such responses. It requires responses to address issues “in detail”
 16 and demonstrate “why specific comments and suggestions were not accepted.” Most
 17 importantly, perhaps, the responses must explain the reasons for rejecting suggestions with a
 18 “good faith, reasoned analysis” and must not rely on “[c]onclusory statements unsupported by
 19 factual information.” Guideline 15088(c).

20 **1. Exhaustion of Administrative Remedies**

21 Respondent first contends that Petitioner failed to exhaust administrative remedies on
 22 this issue. The court has found, above, that Petitioner exhausted its administrative remedies.

23 Petitioner's argument here is collateral and not persuasive. Although Petitioner points
 24 out that a few responses may not sufficiently resolve issues, that is of little importance in of
 25 itself. What matters are the fundamental defects that have not been cured as discussed above:
 26 failure to properly determine GHG inventory, or demonstrate that Respondent could not
 27 practically have done more or did not need to do more; ill-defined mitigation measures
 28 lacking enforceable criteria or parameters; and lack of reasonable range of alternatives.

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The court denies the Petition with respect to the comments..

G. WHETHER RESPONDENTS' ERROR WAS PREJUDICIAL

Respondent contends that even if Petitioner demonstrated error, it was not prejudicial. As noted at the outset, in order for the court to issue a writ of mandate, it must find not only error, i.e., a violation of CEQA, but that error was prejudicial. (*Chaparral Greens v. City of Chula Vista* (1996) 50 Cal.App.4th 1134, 1143; see PRC 21168, 21168.5, *Laurel Heights I, supra* 47 Cal.3d 392, fn.5; Remy, et al., Guide to the California Environmental Quality Act (10th Ed.1999) Chapter XI(D), p.590.)

Respondent's failure to impose meaningful, effectively enforceable mitigation measures, when presenting compliance with the CAP as a way for future projects to avoid any other GHG analysis, is fundamentally and on its face, prejudicial. The failure to present a reasonable range of alternatives or to properly inventory GHG emissions as required are also on, their face, prejudicial because they prevent informed decision making or public review, the very bases of CEQA. (*Sierra Club v. State Bd. of Forestry* (1994) 7 Cal.4th 1215, 1228-1230, 1235-1237 (failure to put critical information in an environmental document was in of itself a prejudicial abuse of discretion partly because it “frustrated the purpose of the public comment provisions”); *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, at 1073 (“[a]n error is prejudicial when an agency fails to comply with a mandatory CEQA procedure or when a report omits information and thereby precludes informed decision making); *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1182.; *Schoen v. Dept. of Forestry & Fire Protection* (1997) 58 Cal.App.4th 556, 565 (“We cannot overlook a prejudicial error by surmising that the project would have gone forward anyway.”).)

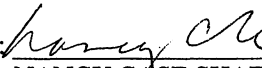
Based on the foregoing,

1 NOW, THEREFORE,

2 ORDER

3 1. The Petition for Mandamus is granted as stated above.

4 Dated: 7/20/17

5 By: 
6 NANCY CASE SHAFFER
7 Judge of the Superior Court

8 END NOTES

9 (a) "Tiering" refers to using the analysis of general matters contained in a broader EIR (such
10 as one prepared for a general plan or policy statement) with later EIRs and negative
11 declarations on narrower projects; incorporating by reference the general discussions from the
12 broader EIR; and concentrating the later EIR or negative declaration solely on the issues
13 specific to the later project.

14 (b) Agencies are encouraged to tier the environmental analyses which they prepare for
15 separate but related projects including general plans, zoning changes, and development
16 projects. This approach can eliminate repetitive discussions of the same issues and focus the
17 later EIR or negative declaration on the actual issues ripe for decision at each level of
18 environmental review. Tiering is appropriate when the sequence of analysis is from an EIR
19 prepared for a general plan, policy, or program to an EIR or negative declaration for another
20 plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration.
21 Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable
22 significant environmental effects of the project and does not justify deferring such analysis to
23 a later tier EIR or negative declaration. However, the level of detail contained in a first tier
24 EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed.

25 (c) Where a lead agency is using the tiering process in connection with an EIR for a large-
26 scale planning approval, such as a general plan or component thereof (e.g., an area plan or
27 community plan), the development of detailed, site-specific information may not be feasible
28 but can be deferred, in many instances, until such time as the lead agency prepares a future
environmental document in connection with a project of a more limited geographical scale, as
long as deferral does not prevent adequate identification of significant effects of the planning
approval at hand.

(d) Where an EIR has been prepared and certified for a program, plan, policy, or ordinance
consistent with the requirements of this section, any lead agency for a later project pursuant to
or consistent with the program, plan, policy, or ordinance should limit the EIR or negative
declaration on the later project to effects which:

- (1) Were not examined as significant effects on the environment in the prior EIR; or
- (2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

(e) Tiering under this section shall be limited to situations where the project is consistent with the general plan and zoning of the city or county in which the project is located, except that a project requiring a rezone to achieve or maintain conformity with a general plan may be subject to tiering.

- 1 (f) A later EIR shall be required when the initial study or other analysis finds that the later
 2 project may cause significant effects on the environment that were not adequately addressed
 3 in the prior EIR. A negative declaration shall be required when the provisions of Section
 4 15070 are met.
- 5 (1) Where a lead agency determines that a cumulative effect has been adequately addressed in
 6 the prior EIR, that effect is not treated as significant for purposes of the later EIR or negative
 7 declaration, and need not be discussed in detail.
- 8 (2) When assessing whether there is a new significant cumulative effect, the lead agency shall
 9 consider whether the incremental effects of the project would be considerable when viewed in
 10 the context of past, present, and probable future projects. At this point, the question is not
 11 whether there is a significant cumulative impact, but whether the effects of the project are
 12 cumulatively considerable. For a discussion on how to assess whether project impacts are
 13 cumulatively considerable, see Section 15064(i).
- 14 (3) Significant environmental effects have been “adequately addressed” if the lead agency
 15 determines that:
- 16 (A) they have been mitigated or avoided as a result of the prior environmental impact report
 17 and findings adopted in connection with that prior environmental report; or
- 18 (B) they have been examined at a sufficient level of detail in the prior environmental impact
 19 report to enable those effects to be mitigated or avoided by site specific revisions, the
 20 imposition of conditions, or by other means in connection with the approval of the later
 21 project.
- 22 (g) When tiering is used, the later EIRs or negative declarations shall refer to the prior EIR
 23 and state where a copy of the prior EIR may be examined. The later EIR or negative
 24 declaration should state that the lead agency is using the tiering concept and that it is being
 25 tiered with the earlier EIR.
- 26 (h) There are various types of EIRs that may be used in a tiering situation. These include, but
 27 are not limited to, the following:
- 28 (1) General plan EIR (Section 15166).
 (2) Staged EIR (Section 15167).
 (3) Program EIR (Section 15168).
 (4) Master EIR (Section 15175).
 (5) Multiple-family residential development/residential and commercial or retail mixed-use
 development (Section 15179.5).
 (6) Redevelopment project (Section 15180).
 (7) Projects consistent with community plan, general plan, or zoning (Section 15183).
- One specific example of a first-tier EIR is a “program” EIR as set forth in Guideline
 15168. This details the nature and requirements and uses of such a first-tier EIR, in a manner
 similar to that set forth in 15152, and gives another good picture of how they are to be used
 and what they must do to be so used in compliance with CEQA. It states, in full,
- (a) General. A program EIR is an EIR which may be prepared on a series of actions
 that can be characterized as one large project and are related either:
- (1) Geographically,
 (2) As logical parts in the chain of contemplated actions,
 (3) In connection with issuance of rules, regulations, plans, or other general criteria to
 govern the conduct of a continuing program, or

1
2 (4) As individual activities carried out under the same authorizing statutory or
3 regulatory authority and having generally similar environmental effects which can be
4 mitigated in similar ways.

(b) Advantages. Use of a program EIR can provide the following advantages. The
5 program EIR can:

(1) Provide an occasion for a more exhaustive consideration of effects and alternatives
6 than would be practical in an EIR on an individual action,

(2) Ensure consideration of cumulative impacts that might be slighted in a case-by-
7 case analysis,

(3) Avoid duplicative reconsideration of basic policy considerations,

(4) Allow the lead agency to consider broad policy alternatives and program wide
8 mitigation measures at an early time when the agency has greater flexibility to deal with basic
9 problems or cumulative impacts,

(5) Allow reduction in paperwork.

(c) Use With Later Activities. Subsequent activities in the program must be examined
10 in the light of the program EIR to determine whether an additional environmental document
11 must be prepared.

(1) If a later activity would have effects that were not examined in the program EIR, a
12 new initial study would need to be prepared leading to either an EIR or a negative declaration.

(2) If the agency finds that pursuant to Section 15162, no new effects could occur or
13 no new mitigation measures would be required, the agency can approve the activity as being
14 within the scope of the project covered by the program EIR, and no new environmental
15 document would be required.

(3) An agency shall incorporate feasible mitigation measures and alternatives
16 developed in the program EIR into subsequent actions in the program.

(4) Where the subsequent activities involve site specific operations, the agency should
17 use a written checklist or similar device to document the evaluation of the site and the activity
18 to determine whether the environmental effects of the operation were covered in the program
19 EIR.

(5) A program EIR will be most helpful in dealing with subsequent activities if it deals
20 with the effects of the program as specifically and comprehensively as possible. With a good
21 and detailed analysis of the program, many subsequent activities could be found to be within
22 the scope of the project described in the program EIR, and no further environmental
23 documents would be required.

(d) Use With Subsequent EIRS and Negative Declarations. A program EIR can be
24 used to simplify the task of preparing environmental documents on later parts of the program.
25 The program EIR can:

(1) Provide the basis in an initial study for determining whether the later activity may
26 have any significant effects.

(2) Be incorporated by reference to deal with regional influences, secondary effects,
27 cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

(3) Focus an EIR on a subsequent project to permit discussion solely of new effects
28 which had not been considered before.

(e) Notice With Later Activities. When a law other than CEQA requires public notice
when the agency later proposes to carry out or approve an activity within the program and to

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2 rely on the program EIR for CEQA compliance, the notice for the activity shall include a statement that:

- 3 (1) This activity is within the scope of the program approved earlier, and
4 (2) The program EIR adequately describes the activity for the purposes of CEQA.

5 ii (a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas
6 emissions at a programmatic level, such as in a general plan, a long range development plan,
7 or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental
8 documents may tier from and/or incorporate by reference that existing programmatic review.
9 Project-specific environmental documents may rely on an EIR containing a programmatic
10 analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged
11 EIRs) 15168 (program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for
12 Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).
13 (b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may *choose to*
14 *analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of*
15 *greenhouse gas emissions or similar document.* A plan to reduce greenhouse gas emissions
16 may be used in a cumulative impacts analysis as set forth below. Pursuant to sections
17 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental
18 contribution to a cumulative effect is not cumulatively considerable if the project complies
19 with the requirements in a previously adopted plan or mitigation program under specified
20 circumstances.

21 (1) *Plan Elements. A plan for the reduction of greenhouse gas emissions should:*

22 (A) Quantify greenhouse gas emissions, both existing and projected over a specified
23 time period, resulting from activities within a defined geographic area;

24 (B) Establish a level, based on substantial evidence, below which the contribution to
25 greenhouse gas emissions from activities covered by the plan would not be cumulatively
26 considerable;

27 (C) Identify and analyze the greenhouse gas emissions resulting from specific actions
28 or categories of actions anticipated within the geographic area;

(D) Specify measures or a group of measures, including performance standards, that
substantial evidence demonstrates, if implemented on a project-by-project basis, would
collectively achieve the specified emissions level;

(E) Establish a mechanism to monitor the plan's progress toward achieving the level
and to require amendment if the plan is not achieving specified levels;

(F) Be adopted in a public process following environmental review.

(2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions,
once adopted following certification of an EIR or adoption of an environmental document,
may be used in the cumulative impacts analysis of later projects. An environmental document
that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify
those requirements specified in the plan that apply to the project, and, if those requirements
are not otherwise binding and enforceable, incorporate those requirements as mitigation
measures applicable to the project. If there is substantial evidence that the effects of a
particular project may be cumulatively considerable notwithstanding the project's compliance
with the specified requirements in the plan for the reduction of greenhouse gas emissions, an
EIR must be prepared for the project.

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(c) Special Situations. As provided in Public Resources Code sections 21155.2 and 21159.28, environmental documents for certain residential and mixed use projects, and transit priority projects, as defined in section 21155, that are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in an applicable sustainable communities strategy or alternative planning strategy need not analyze global warming impacts resulting from cars and light duty trucks.

A lead agency should consider whether such projects may result in greenhouse gas emissions resulting from other sources, however, consistent with these Guidelines.

SCV259242

PROOF OF SERVICE BY MAIL

I certify that I am an employee of the Superior Court of California, County of Sonoma, and that my business address is 600 Administration Drive, Room 107-J, Santa Rosa, California, 95403; that I am not a party to this case; that I am over the age of 18 years; that I am readily familiar with this office's practice for collection and processing of correspondence for mailing with the United States Postal Service; and that on the date shown below I placed a true copy of Order Granting Petition for Writ of Mandate in an envelope, sealed and addressed as shown below, for collection and mailing at Santa Rosa, California, first class, postage fully prepaid, following ordinary business practices.

Date: July 20, 2017

JOSÉ OCTAVIO GUILLÉN
Court Executive Officer

By: Missy Lemley
Missy Lemley, Deputy Clerk

-ADDRESSEES-

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2.3.2.7 Letter O7: Center for Biological Diversity

This letter provides comments on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

- O7-1 The County has received and considered the comments provided. Responses to specific comments are provided below.
- O7-2 CEQA Guidelines section 15088.5(f)(1) provides that “[w]hen an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period.” As explained in Recirculated Draft PEIR Section ES.1 (p. ES-1) and Section 1.4.3 (p. 1-7), the “[r]ecirculated Draft PEIR wholly replaces the May 2022 Draft PEIR” And “[c]omments on the May 2022 Draft PEIR, though part of the administrative record, will not be responded to in the Final PEIR; new comments must be submitted on the Recirculated Draft PEIR.” The County has also informed reviewers that new comments on the Recirculated Draft PEIR must be submitted and that the County would not respond to comments received during the original Draft PEIR public review period. In circumstances such as this, letters that predate the issuance of the Recirculated Draft PEIR do not address adequacy or accuracy of the analysis included in the Recirculated Draft PEIR, which post-dates the comments. To the extent the commenter believes its prior comments have continuing relevance, the burden is on the commenter to explain how with sufficient specificity to enable the County to provide a detailed response. The County does not have the duty to decipher what comments on the May 2022 DEIR the public believes to still be applicable or inapplicable from their previous comment letters, which is why the public has been given the opportunity to draft new comment letters on the Recirculated Draft PEIR.
- O7-3 to O7-8 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.
- O7-9 to O7-10 The County acknowledges the Center for Biological Diversity’s concern that the Revised Draft 2045 CAP does not include any measure for reducing emissions from power and peaker plants within the County that are powered by fossil fuels, particularly since many are located in disadvantaged communities. The County does not have the authority to phase out power plants, whether in disadvantaged communities or elsewhere; the power generation sector is regulated by the CPUC,

CEC, CARB, and USEPA. The purpose of the Revised Draft 2045 CAP is to reduce GHG emissions resulting from activities occurring within unincorporated LA County. Specifically, the project objectives are to achieve the climate action policies of the General Plan and provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets (Recirculated Draft PEIR p. 2-9). The Revised Draft 2045 CAP is not an air pollution or health risk reduction plan, and it is therefore not the appropriate venue for the County to reduce air pollution burdens in environmental justice communities.

Despite the Revised Draft 2045 CAP being first and foremost a plan for reducing GHG emissions, the Revised Draft 2045 CAP is intended to be inclusive, accessible, and meaningful and prioritizes frontline communities, which are Black, Indigenous, and People of Color (BIPOC) and low-income households that have historically experienced a disproportionately high share of environmental impacts (Revised Draft 2045 CAP p. 1-14). In unincorporated Los Angeles County, frontline communities are in areas with the worst air and soil pollution and traffic congestion, with the least open space and smallest number of trees, and they are exposed to particulate matter from living near major freeways, ports, and industry. Because frontline communities also have fewer resources to prevent, adapt, or recover from climate disasters, the County prioritizes strategies that both invest in and support these communities.

The Revised Draft 2045 CAP includes indirect emissions associated with electricity consumed within unincorporated County areas and emission reduction measures and actions to reduce these emissions to zero through the use of 100 percent carbon-free electricity produced through sources such as solar, wind, and hydro (see Measure ES2). The Revised Draft 2045 CAP does not include emissions from large stationary sources (like power plants) that are covered by CARB's CAP & Trade regulations and regulated by other entities because these sources are 1) outside of the jurisdictional control of the County and 2) including these emissions would double-count electricity consumption emissions in the Revised Draft 2045 CAP. The Revised Draft 2045 CAP focuses reduction measures on where the County has jurisdictional influence or control (Revised Draft 2045 CAP p. 1-4 footnote 1). Measure ES2 calls for 100 percent zero-carbon electricity for all County accounts by 2025, and 96 percent zero-carbon electricity for the entire community by 2030 (4 percent opt-out rate assumption). In addition, Measure ES3 calls for substantial increases in local solar power installations (DER infrastructure) throughout the County for both new and existing buildings (municipal, residential, and commercial).

O7-11 to O7-13 The County acknowledges the Center for Biological Diversity's concern that there are gaps in the state and air district's regulation of the energy sector, such as the state's 100 percent zero carbon target (as mandated by SB 100) being focused on retail sales only, potentially allowing power generators to meet this target while still combusting fossil fuels for end uses outside of retail sales (e.g., to meet transmission and distribution losses from the grid). As explained in response to comments O7-9

and O7-10, the County does not have the authority to regulate power plants, which are covered by CARB's CAP & Trade regulations and regulated by other entities.

O7-14 In response to the comment's concern that the Revised Draft 2045 CAP does not include any measure addressing emissions from the power plant sector that may occur due to end uses beyond retail sales (such as meeting transmission and distribution needs), the County does not have the authority to regulate power plants, which are covered by CARB's CAP & Trade regulations and regulated by other entities, as explained in response to comments O7-9 and O7-10.

O7-15 to O7-20 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O7-21 to O7-22 In response to the comment's point about the benefits of distributed energy resources and its lesser environmental impacts, the Recirculated Draft PEIR analyzes the significant environmental impacts of the Revised Draft 2045 CAP as a whole within each environmental resource area of the Recirculated Draft PEIR, which includes aesthetic impacts. For a specific discussion regarding an alternative related to distributed energy generation, please see General Response 1. As explained in General Response 1, distributed generation and storage are not without adverse environmental impacts, which are introduced in Recirculated Draft PEIR Section 3.1.3.6 and are quantitatively analyzed throughout Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures* (p. 3.1-1 et seq.).

O7-23 Regarding the comment's concern regarding utility costs to ratepayers and its suggestion that distributed energy resources could offset a portion of those costs, the Recirculated Draft PEIR analyzes the physical environmental impacts of distributed energy resource-related development facilitated by the Revised Draft 2045 CAP measures and actions on a resource-by-resource basis. Utility costs are beyond the scope of this Recirculated Draft PEIR, which, consistent with CEQA, analyzes the impacts of the Revised Draft 2045 CAP on the physical environment. (See CEQA Guidelines, § 15131.) Public Resources Code section 21060.5 defines "environment" as "the *physical conditions* which exist within the area which will be affected by a proposed project." (Emphasis added.) Thus, by statute, an impact must be related to a change in the physical environment before it is subject to analysis under CEQA. Economic impacts alone are not changes in physical conditions and so are beyond the scope of CEQA review. See CEQA Guidelines section 15064 ("Economic and social changes resulting from a project shall not be treated as significant effects on the environment."); see also, and CEQA Guidelines section 15382 ("An economic or social change by itself shall not be considered a significant effect on the environment.").

- O7-24 See Response O7-23, which explains that CEQA does not require consideration of economic effects. These comments on the Revised Draft 2045 CAP do not result in physical changes to the environment. (See CEQA Guidelines, § 15131.)
- O7-25 See Response O7-23, which explains that ratepayer costs (including the potential for distributed energy resources to offset them) are beyond the scope of this CEQA review. CEQA does not require consideration of economic effects that do not result in physical changes to the environment. (See CEQA Guidelines, § 15131.)
- O7-26 See Response O7-23, which explains that ratepayer costs are beyond the scope of this CEQA review, as CEQA does not require consideration of economic effects that do not result in physical changes to the environment. (See CEQA Guidelines, § 15131.) The County has reviewed the CPUC’s May 2021 whitepaper entitled “Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, rates, and Equity Issues Pursuant to Public Utilities Code Section 913.1” (cited in footnote 15 of the comment letter) and has determined that the information provided does not affect the County’s conclusion that ratepayer costs are beyond the scope of this CEQA review. CEQA does not require consideration of economic effects that do not result in physical changes to the environment. (See CEQA Guidelines, § 15131.)

Nonetheless, the cost of program-level mitigation measures to reduce potential impacts of projects facilitated by the Revised Draft 2045 CAP would be borne by project applicants and could be passed through to SCE ratepayers only if SCE was the project applicant. The wildfire-related impacts associated with the Project are described in Section 3.18, *Wildfire* (p. 3.18-1 et seq.). As described in detail in Section 3.18.2.3, *Project Impacts*, individual projects facilitated by Draft 2045 CAP measures and actions could require fuel breaks, emergency water sources, power lines, or other associated infrastructure that could exacerbate fire hazard risk or result in temporary or ongoing impacts on the environment. (Recirculated Draft PEIR, p. 3.18-22.) To reduce this impact, the County would implement Mitigation Measure 3.18-3, which would require project applicants for projects under the County’s permitting authority to prepare a fire protection plan to ensure that wildland fire-related hazards would not be exacerbated by installation or maintenance of infrastructure associated with future projects facilitated by the Revised Draft 2045 CAP measures and actions that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment. (See Recirculated Draft PEIR, Section 3.18.2.3, pp. 3.18-23, 3.18-24, 3.18-26). The County would also impose Mitigation Measure 3.15-1, which would require the implementation of a traffic control plan (Section 3.18.2.3, p. 3.18-18).

The County has reviewed the statement made about ratepayer savings cited in footnote 16 of the comment letter and finds that it does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

O7-27 This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O7-28 See Response O7-23, which explains that ratepayer costs are beyond the scope of this CEQA review, as CEQA does not require consideration of economic effects that do not result in physical changes to the environment. (See CEQA Guidelines, § 15131.) The County has reviewed the July 2021 report by Vibrant Clean Energy (cited in footnote 17 of the comment letter) and finds that the information contained does not raise environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). To the contrary, the County agrees with the suggestion that distributed generation has a role in supporting the County's efforts to meet its targets and advance toward its goal of carbon neutrality.

O7-29 See Response O7-23 which explain that ratepayer costs, including those that may be increased to address the cost to investor-owned utilities of implementing measures to address wildfire risk, are beyond the scope of this CEQA review, as CEQA does not require consideration of economic effects that do not result in physical changes to the environment. (See CEQA Guidelines, § 15131.) Also see Response O7-26, which explains how individual projects facilitated by Revised Draft 2045 CAP measures and actions would be required to implement Mitigation Measure 3.18-3 to reduce wildfire risk.

The County has reviewed Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering (CPUC R.20-08-020, cited in footnote 18 of the comment letter). See, e.g., page 32 (“Much of the proposed \$4 billion wildfire mitigation expenditures could be avoided by having all customers in the Tier 3 [High Fire-Threat District] HFTD add solar and battery storage, and authorizing the IOUs to conduct power shutoffs at their discretion.”). The County finds that the information contained does not raise environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

O7-30 to O7-33 These comments on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O7-34 The performance goal for Measure ES2 that all unincorporated County accounts must participate in 100 percent renewable electricity service was revised to include other available 100 percent zero-carbon electricity service in addition to CPA's Green Power option and SCE's Green Rate option (Revised Draft 2045 CAP, pp. 3-20, B-

14). The County has already implemented this measure: since October 2022, all customers in unincorporated Los Angeles County are automatically enrolled in CPA’s 100 percent renewable energy option and all residents and businesses in unincorporated Los Angeles County have been receiving 100 percent renewable energy—wind, solar, geothermal—from CPA (Revised Draft 2045 CAP, p. 3-17). The comment does not address the adequacy or accuracy of the Recirculated Draft PEIR or any environmental effects of the proposed Project such that no further response is required pursuant to CEQA Guidelines section 15088(a).

O7-35 As discussed on Revised Draft 2045 CAP p. 3-17, since October 2022, all customers in unincorporated Los Angeles County are automatically enrolled in CPA’s 100 percent renewable energy option. CPA has capacity for all County customers. Thus, this measure is specific, enforceable, and feasible, contrary to the commenter’s claims. Also see General Response 5, which explains the relationship between GHG emissions reduction measures in the Revised Draft 2045 CAP and CEQA mitigation measures and addresses how the quantitative analysis within the Revised Draft 2045 CAP is substantiated. Comment concerns are addressed in the following subsection: Qualified Revised Draft 2045 CAP Reduction Measures Compared to CEQA Mitigation Measures (2.2.5.1).

O7-36 Draft 2045 CAP Measure ES3, *Increase Renewable Energy Production*, calls for a substantial increase in the amount of rooftop solar installed throughout the County. Rooftop solar is a form of distributed energy resources (DER). For example, the performance goals for Measure ES3 include installing rooftop solar on 20 percent of all existing single-family residential homes and multifamily residential buildings and 80 percent of all new single-family residential homes and multifamily residential buildings by 2030, a huge undertaking. Measure ES3 also includes aggressive solar installation performance goals for later years, including 2035 and 2045, and for commercial buildings. This will enable a shift away from CPA’s 100 percent renewable energy option. Because installing rooftop solar is resource intensive and time consuming to implement at scale, and because reducing GHG emissions as quickly as possible is a priority of the Revised Draft 2045 CAP, the County has already implemented Measure ES2 by enrolling all customers in CPA’s 100 percent renewable energy option. Over time, the County’s renewable energy supply will shift from CPA to DER with implementation of Measure ES3 and other similar measures.

O7-37 The commenter does not include suggested performance goals for Measure ES3 or provide evidence to support the claim that Measure ES2 is vague. Please see responses to comments O7-35 and O7-36 above. The comment does not address the adequacy or accuracy of the Recirculated Draft PEIR or any environmental effects of the proposed Project such that no further response is required pursuant to CEQA Guidelines section 15088(a).

O7-38 to O7-40 These comments on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response

is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP.

- O7-41 Responding to the comment’s concern regarding deferring DER implementation, the Revised Draft 2045 CAP sets a goal under ES4 of increasing DER to achieve community electricity storage and generation equal to the community-wide 24-hour average usage by 2035/2045. Action ES4.3 calls for developing a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency. In response to this comment, the County has changed the implementation timeline for the community energy map required by Action ES4.3 to the short term (2024–2030) timeline. DER takes time and careful planning to implement into the community and the County has set realistic targets for measure realization.
- O7-42 Regarding the comment’s concern regards utility-scale solutions, consistent with the challenges reported in the 2022 California Renewables Portfolio Standard Annual Report, “no single solution... will resolve the myriad of challenges impacting [California Renewables Portfolio Standard (RPS)] project development.”²¹ As described in the Recirculated Draft PEIR Section 3.7.1.3, *Regulatory Setting*, in Section 3.7, *Energy* (p. 3.7-6) SB 100 (de León, 2018) sets an RPS requirement to achieve 60 percent by 2030 and establishes a goal that renewable and zero-carbon resources supply 100 percent of electric retail sales to California end-use customers by 2045. SB 100 directed the California Energy Commission, CPUC, and the California Air Resources Board to collaborate on a joint agency report to evaluate challenges and opportunities for SB 100’s implementation. The first SB 100 Joint Agency Report,²² issued in March 2021, includes an initial evaluation of the additional energy resources and the resource building rates necessary to realize 100 percent clean electricity. It recognizes that microgrids have a role in supporting energy resilience as an important alternative to fossil fuel backup generators, but cautions that “clean energy microgrids have limitations, particularly in how long they can keep the power on and the associated relatively high cost.” Ultimately, both utility-scale and distributed renewable energy generation will need to be deployed at increasing levels to achieve target set forth at the state level and in the Revised Draft 2045 CAP. Regarding the concern about environmental impacts from utility-scale solutions, the Recirculated Draft PEIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP* (p. 3.1-13), expressly acknowledges that future projects facilitated by Draft 2045 CAP measures and actions, including utility-scale development may cause adverse environmental impacts. The Recirculated Draft PEIR provides two full pages (p. 3.1-

²¹ California Public Utilities Commission (CPUC), 2022. 2022 California Renewables Portfolio Standard Annual Report. November 2022. <https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/energy/rps/2022-rps-annual-report-to-the-legislature.pdf>. Accessed June 7, 2023.

²² Gill, Liz, Gutierrez, Aleccia, and Weeks, Terra. 2021. 2021 SB 100 Joint Agency Report, Achieving 100 Percent Clean Electricity in California: An Initial Assessment. Updated September 3, 2021. <https://www.energy.ca.gov/publications/2021/2021-sb-100-joint-agency-report-achieving-100-percent-clean-electricity>. Accessed June 7, 2023.

13 et seq.) discussing new utility-scale solar projects and why the County believes that renewable energy demand could be met in a variety of ways other than through new utility-scale solar projects, such as further development of rooftop solar.

O7-43 and O7-44 See Section 2.2.1, *General Response 1: CEQA Alternatives*, regarding the Recirculated Draft PEIR's analysis of utility-scale and other renewable energy projects, including battery storage, that would be facilitated by implementation of the Revised Draft 2045 CAP. Comments O7-43 and O7-44 do not identify any additional environmental impacts that were not considered or analyzed in the Recirculated Draft PEIR.

Comment O7-44 states that the Recirculated Draft PEIR should evaluate potential environmental impacts from utility-scale biofuel operations. However, no such projects are included as measures or implementing actions in the Revised Draft 2045 CAP, except for Action W2.3 which calls for working with waste and wastewater service providers to "utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel." (Revised Draft 2045 CAP, p. 3-60). The use of these existing facilities for such purposes would not require additional CEQA review. Action T6.7 identifies the use of biomethane and biogas created from organic waste as a "bridge fuel to achieve 100 percent green hydrogen and electric vehicles (Revised Draft 2045 CAP, p. 3-39). Measure E1 identifies biomethane as a potential alternative to fossil natural gas for use in existing buildings for water heating, space heating, and cooking, but also states that existing opportunities for the widespread use of biomethane are currently limited (Revised Draft 2045 CAP, p. 3-48). Action E3.1 calls for working with utilities to incorporate increasing levels of biomethane into the natural gas mix (Revised Draft 2045 CAP, p. 3-53). Any utility-scale biomethane production facility would require project-level CEQA review before approval.

O7-45 The comment correctly states that poorly sited large-scale solar development can result in adverse impacts to the physical environment; however, no renewable energy projects of any scale are specifically proposed in the Revised Draft 2045 CAP. Recirculated Draft PEIR Section 3.1.3.6 (p. 3.1-13), expressly acknowledges that future projects facilitated by Draft 2045 CAP measures and actions may cause environmental impacts. Examples of such projects could include distributed generation via solar roofs, community solar, or microgrids; battery storage and electric vehicle charging stations; utility-scale solar photovoltaic (PV) development; and/or energy transmission and subtransmission facilities. Such impacts are analyzed on a resource-by-resource basis in Recirculated Draft PEIR Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. See Section 2.2.1, *General Response 1: CEQA Alternatives*, which provides specific cross-references to such analyses.

O7-46 The comment correctly states that terrestrial wind projects may result in adverse impacts to avian species and other aspects of the physical environment. However, it does not question the adequacy or accuracy of the Recirculated Draft PEIR. The

Recirculated Draft PEIR analyzes the impacts of projects that would be facilitated by implementation of the Revised Draft 2045 CAP at a program level of detail. See Section 2.2.1, *General Response 1: CEQA Alternatives*, for examples of where the Recirculated Draft PEIR analyzes the impacts of renewable energy development. The County has reviewed the documents cited in footnotes 24 and 25 of the comment letter and has determined that the information provided does not bear on the adequacy or accuracy of the Recirculated Draft PEIR or the conclusions reached in the Recirculated Draft PEIR. Nonetheless, the information has been included in the administrative record where it will be considered as part of the decision-making process.

- O7-47 While the comment correctly states that geothermal energy projects may result in adverse impacts the physical environment, it does not provide specific concerns regarding the adequacy or accuracy of the Recirculated Draft PEIR. The Recirculated Draft PEIR analyzes the impacts of projects that would be facilitated by implementation of the Revised Draft 2045 CAP at a program level of detail. See Section 2.2.1, *General Response 1: CEQA Alternatives*, for examples of where the Recirculated Draft PEIR analyzes the impacts of renewable energy development. The County has reviewed the document cited in footnote 26 of the comment letter and has determined that the information provided is generic, offers no opinion about impacts associated with the Revised Draft 2045 CAP, and does not bear on the adequacy or accuracy of the Recirculated Draft PEIR or the conclusions reached in the Recirculated Draft PEIR.
- O7-48 While the comment correctly suggests that distributed energy generation projects such as rooftop solar projects can reduce impacts to the physical environment relative to ground-mounted, utility-scale projects, it does not provide specific concerns regarding the adequacy or accuracy of the Recirculated Draft PEIR. The Recirculated Draft PEIR analyzes the impacts of projects that would be facilitated by implementation of the Revised Draft 2045 CAP at a program level of detail; please refer to Section 2.2.1, *General Response 1: CEQA Alternatives*, for examples of where the Recirculated Draft PEIR analyzes the impacts of renewable energy development. The impacts of distributed energy generation projects are analyzed in the Recirculated Draft PEIR. See Response O7-45 for details. See also, for example, Section 3.2, *Aesthetics* (p. 3.2-9), Section 3.7, *Energy* (pp. 3.7-12, 3.12-13), Section 3.10, *Hazards and Hazardous Materials* (pp. 3.10-19, 3.10-22, 3.10-24), and Section 3.12, *Land Use and Planning* (p. 3.12-17). The County has reviewed the documents cited and determined that the information provided is generic, offers no opinion about impacts associated with the Revised Draft 2045 CAP, and does not bear on the adequacy or accuracy of the Recirculated Draft PEIR or the conclusions reached in the Recirculated Draft PEIR.
- O7-49 The decision to implement small-scale solar development rather than utility-scale solar development relate to County policy decisions, which are not addressed or resolved in the Revised Draft 2045 CAP. The Revised Draft 2045 CAP instead considers the potential for a mix of new renewable energy sources to be developed as

facilitated by the Revised Draft 2045 CAP. The County has reviewed the document cited in footnote 27 of the comment letter and has determined that the information provided is generic, offers no opinion about impacts associated with the Revised Draft 2045 CAP, and does not bear on the adequacy or accuracy of the Recirculated Draft PEIR or the conclusions reached in the Recirculated Draft PEIR. Regarding impacts, please refer to *General Response 1: CEQA Alternatives*, for examples of where it will be considered as part of the decision-making process. The Recirculated Draft PEIR analyzes the impacts of renewable energy development.

O7-50 Regarding the comment’s acknowledgment that the Recirculated Draft PEIR details impacts of the types of energy development that could occur, the comment provides insufficient information about the commenter’s concern regarding the “degree” of impacts to allow the County to address this point in greater detail. Please refer to *General Response 1: CEQA Alternatives*, for examples of where the Recirculated Draft PEIR analyzes the impacts of renewable energy development and explains that CEQA does not require an EIR to consider alternatives to a component of a project, but rather recommends that alternatives focus on alternatives to the project as whole. (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957 [an EIR is required to describe alternatives to the proposed project as a whole, not to the various facets thereof].) Measure ES3, *Increase Renewable Energy Production* (Recirculated Draft PEIR Section 2.6.2.1, p. 2-22 et seq.), which includes Action ES3.6, and Measure ES4, *Increase Energy Resilience* (p. 2-23), are components of the Project rather than the entirety of the Project. Accordingly, the Recirculated Draft PEIR need not evaluate alternatives to specific measures and implementing actions for the Revised Draft 2045 CAP’s renewable energy policies and to achieve its renewable energy targets. Also see generally Section 3.1.3.3, *Significance Conclusions* (Recirculated Draft PEIR, p. 3.1-11), which explains the distinctions among significance conclusions reached in the Recirculated Draft PEIR. Regarding the comment’s statement related to the environmentally superior alternative, see Recirculated Draft PEIR, Section 4.6, p. 4-20 et seq. and General Response 1 regarding DER-focused alternatives.

O7-51 The Comment correctly notes that the Recirculated Draft PEIR does not detail the potential local impacts of biofuel and biomass processing facilities, specifically biomethane production and combustion. The Revised Draft 2045 includes anaerobic digestion and biomass conversion conceptually in the description of Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream (Revised Draft 2045 CAP, 3-57). However, there is just one action related to biomass conversion – Measure 2 (Increase Organic Diversion), Action W2.3 – which calls for working with waste and wastewater service providers to “utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel.” (Revised Draft 2045 CAP, p. 3-60). The use of these existing facilities for such purposes would not require additional CEQA review.

As discussed in response to comment O7-44 above, there are several measures and actions that identify biomethane as a potential renewable fuel source. This includes Action T6.7 (biomethane and biogas created from organic waste can be used as a "bridge fuel" to achieve 100 percent green hydrogen and electric vehicles), Measure E1 (biomethane as a potential alternative to fossil natural gas for use in existing buildings), and Action E3.1 (work with utilities to incorporate increasing levels of biomethane into the natural gas mix) (Revised Draft 2045 CAP, pp. 3-39, 3-48, and 3-53). Any utility-scale biomethane production facility would require project-level CEQA review before approval.

Further, as explained in Recirculated Draft PEIR Section 1.3, *Program-level Analysis and Tiering* (pp. 1-2 and 1-3), a program EIR is a type of EIR prepared pursuant to CEQA that is used to evaluate a plan or program that has multiple components or actions that are related either: geographically; as logical parts in the chain of contemplated actions; in connection with application of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways. (Public Resources Code, §§ 21068.5 and 21093; CEQA Guidelines, § 15168(a).) Consistent with CEQA, the Recirculated Draft PEIR evaluates general impacts of the plan or program (i.e., the Revised Draft 2045 CAP), but does not examine the potential site-specific impacts of the many individual projects implementing Revised Draft 2045 CAP measures and actions that may be proposed in the future.

Environmental justice and its special focus on disadvantaged communities is beyond the scope of CEQA. See Public Resources Code section 21060.5, which defines "environment" as "the physical conditions that exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance." See also the Environmental Checklist provided in CEQA Guidelines Appendix G. Nonetheless, the Recirculated Draft PEIR does consider potential impacts of the Revised Draft 2045 CAP on the environmental resource areas that typically are considered in an environmental justice analysis. See, e.g., Section 3.4, *Air Quality* (p. 3.4-1 et seq.), Section 3.10, *Hazards and Hazardous Materials* (p. 3.10-1 et seq.), and Section 3.11, *Hydrology and Water Quality* (p. 3.11-1 et seq.).

Regarding the comment's statement that biomethane represents a "false climate solution," SB 100 does indeed consider biomethane a zero-carbon resource.²³ The 2022 Scoping Plan also identifies biomethane as a low-carbon fuel and a strategy for achieving the state's GHG reduction targets.²⁴ The Revised Draft 2045 CAP intends

²³ California Energy Commission, 2017. *Renewables Portfolio Standard Eligibility*. January 2017. Available at file:///C:/Users/bschuster/Downloads/TN217317_20170427T142045_RPS_Eligibility_Guidebook_Ninth_Edition_Revised.pdf. Accessed September 2023.

²⁴ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Pages 78, 88, 146, 190, 206-218. Available at <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed August 2023

to align with state climate goals; this is Project Objective #2 (*Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals*). Because CARB and CEC accept biomethane as a zero-carbon resource, so does the Revised Draft 2045 CAP. The comment's note that proper accounting for the GHG emissions and climate impacts associated with biomethane production and combustion are acknowledged and agrees with the statement that experts who study the climate impacts biofuel feedstocks identify wide ranges of uncertainty. The County recognizes these concerns, and does not rely on the use of biofuels or biomethane to achieve the Revised Draft 2045 CAP's targets for 2030, 2035, or 2045.

Potential socio-economic impacts also are beyond the scope of CEQA analysis. As explained in the CEQA Guidelines, an EIR must analyze the "physical changes in the environment which may be caused by the project" and "[e]conomic or social effects of a project shall not be treated as significant effects on the environment." (CEQA Guidelines, §§ 15064(d), 15131.) The Recirculated Draft PEIR analyzed the Project's physical changes to the environment and impacts related to public health and the community. Here, no site-specific biofuel plants are proposed in the Revised Draft 2045 CAP. As explained in Recirculated Draft PEIR Section 3.1.3.6 (p. 3.1-13), "The Draft 2045 CAP is a policy document that does not propose any specific development or any other specific physical change to the environment" and "[f]uture developments will be subject to project-level environmental review where they are not exempt from CEQA." In this context, it would be speculative to assume that any biomass power plant facilitated by the implementation of Revised Draft 2045 CAP measures and actions would cause repeated air quality violations.

The County has reviewed the documents cited in footnotes 30 and 31 of the comment letter and has determined that the information provided is generic, offers no opinion about impacts associated with the Revised Draft 2045 CAP, and does not bear on the adequacy or accuracy of the Recirculated Draft PEIR or the conclusions reached in the Recirculated Draft PEIR. Nonetheless, the information has been included in the administrative record where it will be considered as part of the decision-making process.

- O7-52 In response to this comment's concern regarding potential uncertainty attendant to properly accounting for the climate impacts of biomass and biomethane, this concern is beyond the scope of the Recirculated Draft PEIR because the Revised Draft 2045 CAP does not include such projects listed in the comment. The Revised Draft 2045 CAP does rely on related emissions reductions from biomass and biomethane controls to achieve 2045 CAP goals.
- O7-53 Specific responses to this comment's concern regarding phase out of oil and gas operations are provided below in Responses to Comments O7-54 through O7-56.

- O7-54 Measure ES1 (Develop a Sunset Strategy for All Oil and Gas Operations) identifies a performance objective to reduce oil and gas operations: 40 percent by 2030, 60 percent by 2035, and 80 percent by 2045. This represents the quantified GHG emission reductions contribution from this measure toward the total Revised Draft 2045 CAP GHG emission reduction targets. This does not restrict the County from exceeding the performance objective to achieve environmental justice goals.
- O7-55 The Oil Well Ordinance adopted on January 24, 2023 applies to 473 of the 1,547 total oil wells in the unincorporated County. The remaining 1,074 oil wells are within the Baldwin Hills Community Standards District (855 oil wells), in an area designated as a specific plan (57 oil wells), or are operating under a valid discretionary permit (162 oil wells). These remaining oil wells will be addressed in pending and future County efforts. The performance objectives represent guideposts for successful implementation of measures and do not represent maximum achievements. Measures are able to exceed the performance objectives. See O7-56 for additional discussion.
- O7-56 The performance objective associated with Measure ES1 reflects the quantified GHG emission reduction contribution from this measure toward the total Draft 2045 CAP GHG emission reduction targets. The introductory statement on page E-3 of the Revised Draft 2045 CAP Appendix E (Implementation Details) explains the purpose and intent of performance objectives. The performance objectives represent guideposts for the successful implementation of each measure and the Revised Draft 2045 CAP as a whole. However, they are not specific mandates. Successful implementation of the Revised Draft 2045 CAP ultimately translates to the County meeting its GHG reduction targets for 2030, 2035 and 2045. The Revised Draft 2045 CAP demonstrates how these targets can be met through a combination of measures, including an 80 percent reduction in emissions from oil and gas operations by 2045. The County recognizes that as the Revised Draft 2045 CAP is implemented and monitored, future amendments to CAP measures may be needed to address future federal and state regulations and as such, performance objectives may change in the future.

An amortization study is underway to determine the fastest possible phase-out timeline for all existing oil wells and production facilities. This study will consider the legal, environmental, political, and cost considerations of the phase out. The performance objective does not dictate the amortization rate; however, the amortization study may influence future adjustments to the performance objectives should the results determine that the performance objective is infeasible or should be accelerated. As such, the performance objective has been modified to include a note to adjust the performance objective to reflect the results from the amortization study. The note will read, “**The performance objective provided here serves as a general metric and may be refined upon completion of the Oil Well Amortization Study.**”

- O7-57 and O7-58 The County acknowledges that results from the Oil Well Amortization Study will help inform the amortization speed and process and guide the strategy to phase

out oil and gas extractions and facilities. As such, Section 4.3.6 of the Recirculated Draft PEIR will be edited to strike out the following statement pending outcome of the amortization study:

~~*Achieving a complete phase-out by 2045 would be a daunting challenge.*~~
(Recirculated Draft PEIR, Section 4.3.6, p. 4-9.)

- O7-59 Section 4.3.6 of the Recirculated Draft PEIR discusses three primary reasons for not carrying forward the alternative for complete phase-out of oil and gas operations by 2030. The first is that the alternative would not clearly avoid or substantially lessen the potential impacts of the Project. It will be clarified however that the reference to an increase in localized construction-related air quality impacts from decommissioning oil and gas wells are for short-term construction impacts. As such, Section 4.3.6 will be revised as follows:

It is possible that this alternative could worsen or increase the Project's potential significant impacts, such as short-term localized construction-related air quality and health risk impacts from decommissioning of oil and gas wells and remediation activities at contaminated sites. (Recirculated Draft PEIR, Section 4.3.6, p. 4-9.)

These revisions do not result in changes to environmental impact analyses or conclusions presented in the Recirculated Draft PEIR, and therefore do not constitute significant new information that would trigger recirculation under CEQA Guidelines section 15088.5.

Secondly, without a completed amortization study, the timeline for phase-out of oil and gas facilities is speculative for the 1,074 oil wells not covered by the Oil Well Ordinance and are within the Baldwin Hills Community Standards District, in an area designated as a specific plan, or are operating under a valid discretionary permit. Oil wells authorized through discretionary permits and with expiration dates beyond 2030 will need to be addressed in the amortization study.

Thirdly, the alternative addresses only one of the Revised Draft 2045 CAP measures, a Project component, rather than the Project as a whole. (See *California Oak Foundation v. Regents of University of California* (2010) 188 Cal.App.4th 227, 276-277.) See General Response 1 for more discussion.

- O7-60 See Response O7-51, which addresses the comment associated with the examples provided in this footnote.
- O7-61 The County acknowledges the County Code citation that references the process for review of requests for extension for nonconforming uses (County Code, Section 22.172.060). This comment does not raise significant environmental issues relating to the Recirculated Draft PEIR such that no response is required pursuant to CEQA Guidelines section 15088(a).

- O7-62 Regarding the comment’s concern regarding conservation of natural lands and wildfire risk, see Responses to Comments O7-63 through O7-65.
- O7-63 The Revised Draft 2045 CAP emphasizes actions around the transportation and building energy sectors because they collectively contribute to 85% of County GHG emissions. Conservation of natural lands for carbon sequestration, biodiversity, and habitat resiliency is an important contribution to the aspirational goal of carbon neutrality; however, actions need to be initiated more immediately that can reduce more quickly tackle the GHG emission sources. The County will continue to seek opportunities to conserve habitats through concurrent efforts such as the Significant Ecological Areas Program which requires preservation of natural open space to offset impacts to biotic resources and the Santa Monica Mountains Local Coastal Program’s Resource Conservation Program which consists of an expenditure of funds used for acquisition and permanent preservation of habitat.
- O7-64 SB 379 (2015) mandated the County to update the Safety Element to incorporate climate adaptation and resiliency strategies. The updated Safety Element was adopted in July 2022 and includes clear linkages between land development and climate-induced hazards, particularly wildfire. All elements of the General Plan work in tandem with each other and as a cohesive framework to address the natural and built environment. Addressing the linkage between land development and climate-induced hazards is best suited for the Safety Element as directed by SB 379.
- O7-65 SB 379 (2015) mandated the County to update the Safety Element to incorporate climate adaptation and resiliency strategies. The Safety Element was updated with an extended number of policies to address fire hazards that consider climate change as well as traditional, but also adapted, approaches for the forecasted wildfire changes. Such policies within the Safety Element include:

Policy S 4.3: Ensure that biological and natural resources are protected during rebuilding after a wildfire event.

Policy S 4.10: Encourage the planting of native oaks in strategic locations and near existing oak woodlands, including those to be mapped in the Oak Woodlands Conservation Management Plan, to protect developments from wildfires, as well as to lessen fire risk associated with developments.

Policy S 4.13: Encourage the siting of major landscape features, including but not limited to large water bodies, productive orchards, and community open space at the periphery of new subdivisions to provide strategic firefighting advantage and function as lasting firebreaks and buffers against wildfires, and the maintenance of such features by respective property owners. (General Plan, Safety Element, p. S-18 – S-19)

Addressing the linkage between land development and climate-induced hazards is best suited for the Safety Element, as directed by SB 379.

- O7-66 Responding to the comment’s request for more clarity on the Checklist, please see General Response 3 for discussion regarding implementation of the Revised Draft 2045 CAP’s measures and actions and the processes applicable to various project applicants.
- O7-67 As noted by the commenter, the Checklist does include all project-level requirements for CEQA streamlining purposes. Please see General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist, for additional discussion.

Responding regarding the adequacy of the Revised Draft 2045 CAP’s measures, see enforceable General Response 5, which addresses the relationship between Revised Draft 2045 CAP measures and CEQA mitigation measures. The Revised Draft 2045 CAP and Recirculated Draft PEIR demonstrate with substantial evidence that the Revised Draft 2045 CAP meets the requirements of CEQA Guidelines section 15183.5(b), thereby allowing future projects to streamline their GHG impacts evaluation pursuant to CEQA Guidelines sections 15064.4 and 15183.5. (Revised Draft 2045 CAP pp. 1-4 to 1-5; Recirculated Draft PEIR pp. 2-9 to 2-12 and pp. 2-17 to 2-18.) Specifically, to meet the requirements of CEQA Guidelines section 15183.5(b), a CAP must only analyze GHG reductions “resulting from specific actions *or categories of actions anticipated* within the geographic area” (emphasis added). In addition, a CAP must “[s]pecify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.” (CEQA Guidelines, § 15183.5(b)(1)(D).) The Revised Draft 2045 CAP complies with this requirement by including specific performance standards for new development in the Checklist and explaining how these standards achieve the Revised Draft 2045 CAP’s emission reduction targets. (Revised Draft 2045 CAP p. 1-4; Recirculated Draft PEIR p. 2-11.)

Regarding the specificity and enforceability of CAP measures, as discussed in the Recirculated Draft PEIR, the Revised Draft 2045 CAP includes a preponderance of mandatory (versus voluntary) measures and actions, measures that address the largest GHG emissions sources (such as building energy use and transportation), a focus on core measures that are likely to reduce large amounts of emissions, transparency in methods of quantification (see Appendix B of the Revised Draft 2045 CAP), and no reliance on voluntary carbon offsets (Recirculated Draft PEIR p. 2-11). Further, the previous comments dated April 30, 2020, pertain to a previous draft of the Revised Draft 2045 CAP and are not relevant to the Recirculated Draft PEIR, which wholly replaces the May 2022 Draft PEIR. (See CEQA Guidelines, § 15088.5(f)(1).)

Please also see General Response 3, which addresses the Revised Draft 2045 CAP’s reliance on future ordinances or plans that have not yet been developed to achieve its GHG reduction targets.

O7-68 As explained in General Response 3, the Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis (see Appendix F, p. F-5 et seq.). Regarding requirements for projects prior to adoption of future ordinances implementing Revised Draft 2045 CAP measures and actions, the Checklist is also clear on this front. The Checklist states that the project must either do X (such as include electric options for promoting active transportation) or comply with a future ordinance (such as a future EVCS ordinance) and readiness. If the ordinance is not in place when the Checklist is being completed, then the project need not comply with such future ordinance.

To the commenter's example regarding the County's future potential zero net energy (ZNE) ordinance, voluntary Tier 2 Checklist item #16 requires, for projects under construction after 2030, the project to be zero-net-energy and/or comply with the County's ZNE ordinance, unless the project meets specific exemptions identified in the ordinance.

To document the proposed change in use of the Checklist and provide further clarity regarding streaming requirements prior to adoption of future ordinances, the County has revised the Revised Draft 2045 CAP in the following way:

For projects under construction after 2030, the project must be zero-net-energy and fully electric with no natural gas infrastructure or appliances achieve zero GHG emissions for on-site energy use, as specified in and/or comply with the County's ZNE ordinance, unless the project meets specific exemptions identified in the ordinance. (Revised Draft 2045 CAP, Appendix F, p. F-25.)

O7-69 Please see General Response 3, which addresses the Revised Draft 2045 CAP's validity as a CEQA streamlining tool, and General Response 5, which addresses the Revised Draft 2045 CAP's reliance on future ordinances or plans that have not yet been developed to achieve its GHG reduction targets. Also see response to comment O7-68 above.

O7-70 In response to the comment's statement regarding incorporating by reference all previous comments submitted by the commenter, CEQA Guidelines section 15088.5(f)(1) provides that "[w]hen an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period." As explained in Recirculated Draft PEIR Executive Summary Section ES.1 (p. ES-2), "[c]omments on the May 2022 Draft PEIR, though part of the administrative record, will not be responded to in the Final PEIR; new comments must be submitted on the Recirculated Draft PEIR." The County has also informed reviewers that new comments on the Recirculated Draft PEIR must be submitted and that the County would not respond to comments received during the original Draft PEIR public review period. The commenter's previous submittals predate the issuance of this Recirculated Draft PEIR, are inapplicable and are

presumed not to bear on the adequacy or accuracy of the Recirculated Draft PEIR. The Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR. To the extent the commenter believes its prior comments have continuing relevance, the burden is on the commenter to explain how with sufficient specificity to enable the County to provide a detailed response. The County does not have the duty to decipher what comments on the May 2022 Draft PEIR the public believes to still be applicable or inapplicable from their previous comment letters, which is why the public has been given the opportunity to draft new comment letters on the Recirculated Draft PEIR.

- O7-71 CEQA Guidelines section 15088.5(f)(1) provides that “[w]hen an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period.” As explained in Recirculated Draft PEIR Executive Summary Section ES.1 (p. ES-1), Section 1.2 (p. 1-2), Section 1.4.3 (p. 1-7), and Section 1.4.4 (p. 1-9) the “Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR.” The Recirculated Draft PEIR specifically states, “Comments on the May 2022 Draft PEIR, though part of the administrative record, will not be responded to in the Final PEIR; new comments must be submitted on the Recirculated Draft PEIR.” This also was noted in the Notice of Availability for the Recirculated Draft PEIR posted on the project website at <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>. It was also noted in the April 19, 2023, email sent to interested parties registered on the project email listserv.

The commenter’s previous submittals predate the issuance of the Recirculated Draft PEIR, are inapplicable, and do not address adequacy or accuracy of the analysis included in the Recirculated Draft PEIR that post-dates the commenter’s July 18, 2022, and February 1, 2022, comments on the Draft PEIR. The comment’s general statement incorporating prior submittals by reference without some indication of their applicability or relevance does not provide the County with enough information to provide a detailed response in this Final PEIR or in the context of any further revisions to the Revised Draft 2045 CAP. To the extent the commenter believes their prior comments have continuing relevance, the burden was on the commenter to explain with sufficient specificity how they are relevant to the Recirculated Draft PEIR to enable the County to provide a detailed response. The County does not have the duty to decipher what comments on the May 2022 Draft PEIR the commenter believes to still be applicable from its previous comment letters, which is why the public has been given the opportunity to draft new comment letters on the Recirculated Draft PEIR.



May 16, 2023

Attn: Thuy Hua,
Los Angeles County Regional Planning
320 W. Temple Street, 13th Floor Los Angeles, CA 90012

Sent via electronic mail

To the Los Angeles County Department of Regional Planning,

RE: Comments on the Draft 2045 Los Angeles County Action Plan

On behalf of Communities for a Better Environment (CBE) we are submitting this comment letter to share feedback on the Draft 2045 Los Angeles County Climate Action Plan (CAP). We commend the Los Angeles County Department of Regional Planning (DRP) for updating the CAP. While the CAP is an opportunity to reduce greenhouse gas emissions, CBE urges the County to continue engaging with frontline communities and meaningfully inventory the disproportionate climate impacts that hit Environmental Justice (EJ) communities hardest.

O8-1

Energy Supply

In addition to the goals for phaseout of Oil & Gas extraction, the Oil Refinery phase down process will begin, as a measure in the State Scoping Plan. We urge the County to support the state Scoping Plan process to phase down Oil Refinery production of gasoline, diesel, and other products in line with reduction in demand for these fuels. It is important to plan the decommissioning and clean-up of refinery infrastructure, and a Just Transition for refinery workers as California uses less gasoline, diesel, and other refinery products. Refineries will not automatically disappear but continue to pollute local communities for short term profits as they export a greater and greater volume of climate warming fossil fuels abroad.

O8-2

Oil & Gas

DRP recognizes that eliminating oil and gas drilling are core to the County’s decarbonized future, but also that benefits of energy decarbonization do not always reach frontline communities. DRP should continue to accelerate its drilling phaseout timeline to close and remediate drill sites as soon as legally possible. While the County’s plan to phase down oil and gas operations 80 percent by 2045 will benefit community health, the CAP can be, and should be more ambitious, targeting 100% phase out by the soonest possible date based on the County’s amortization study.

O8-3

- ES 1.1: CBE supports a sunset strategy which prioritizes disproportionately impacted communities for well abandonment and site remediation. In this process the county must place an emphasis on community involvement so that impacted residents can guide the phase down and trust in effective clean up and remediation practices. Addressing

O8-4

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| <p>breaches in community trust is one of many remedies a drilling phase out must include alongside stringent health protections and “polluter pays” measures.¹</p> | <p>O8-4 (cont.)</p> |
| <ul style="list-style-type: none"> • ES 1.2: DRP’s recognition of the fugitive emissions threat is an important component of drilling phase out. As abandonment of oil wells proceeds, DRP must establish a long-term well monitoring plan to ensure LA County’s legacy of oil drilling does not morph into a legacy of brownfields and fugitive methane pollution. Fugitive methane emissions have proven notoriously difficult to monitor.² Drill site remediation should include a management plan to ensure plugging has been effective both in the short and long term. | <p>O8-5</p> |
| <ul style="list-style-type: none"> • ES 1.3: DRP should be extraordinarily cautious in its plans for Carbon Capture and Storage (CCS) in the County. While safety rules and community protection measures should be continued wherever oil and gas infrastructure are present as those sites operate and wind down, CCS is not such a community health measure. Rather, CCS can extend the life of polluting operations in the County, take up large swaths of urban land, and is very energy intensive to operate. CCS can also introduce new hazards into communities already burdened by harmful oil and gas infrastructure.³ | <p>O8-6</p> |
| <p><u>Solar & Energy Resilience</u></p> <ul style="list-style-type: none"> • ES 3.1, ES 3.2, and ES 3.5: CBE supports the installation of solar on buildings to increase access to renewable energy. It is imperative that the County set baseline protections that prevent landlords from simultaneously claiming County funds and passing costs on to tenants. Instead, DRP’s solar incentives should incent affordable housing with upfront financial support for retrofits. | <p>O8-7</p> |
| <ul style="list-style-type: none"> • ES 4.1: Community Resilience Hubs have the potential to provide a safe and comfortable space for community to gather during extreme climate events. A successful resilience hub must be co-designed and developed with community and directly address community concerns. CBE has been working with community members to support the development of two sites in Wilmington to serve as resilience hubs.⁴ We encourage the County to directly partner with community-based organizations (CBOs) to ensure meaningful engagement with community members. Community leadership should identify trusted sites, the energy load, resources, services, and materials necessary at the resilience hub to address community needs. | <p>O8-8</p> |

¹ Liberty Hill Foundation, Drilling Down: The Community Consequences of Expanded Oil Development in Los Angeles, pp. 20, 23 (2015) https://libertyhill-assets-2.s3-us-west-2.amazonaws.com/media/documents/Drilling_Down_Report_-_Full.pdf.

² James Turitto, The IEA’s Methane Tracker shows massive underestimation of methane emissions in national inventories, Clean Air Task Force (Apr. 8, 2022) <https://www.catf.us/2022/04/ieas-methane-tracker-shows-massive-underestimation-methane-emissions-national-inventories/>.

³ Appendix A, CBE, CARB Draft Scoping Plan: AB32 Source Emissions Initial Modeling Results, pp. 4-10 (4 April 2022)

⁴ Appendix B: Communities for a Better Environment: Resilience Hub Survey Results Infographic for Wilmington, CA. November 2022 ([page 1](#)) ([page 2](#))

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| <p><u>Transportation</u></p> | <p>Transportation is the largest contributor to County greenhouse gas emissions,⁵ made up of mostly single-occupancy vehicles. DRP recognizes that lowering total vehicle miles traveled (VMT) and expanding access to zero-emission vehicles (ZEVs) is critical to reducing the County’s total GHG emissions. For environmental and low-income communities, public transportation is a vital part of peoples’ mobility and increased investment has the opportunity to improve the economic livelihood of communities.⁶ Environmental justice communities need a transit system that is free, reliable, clean, adapted to climate conditions, equipped to support riders during extreme climate or industrial risks, and safe. Our lens of safety is embedded in community care and not over-policing. Additionally, investments into local transit systems should prioritize electric and zero-emission technologies. We expand our concerns, recommendations, and support below:</p> <ul style="list-style-type: none"> • T 4.6: CBE supports free transit to encourage the use of public transit as a viable alternative to single occupancy vehicles. | <p>O8-9</p> |
| <ul style="list-style-type: none"> • T 4.8: CBE supports the establishment of temporary car-free areas. However, such areas must be identified in partnership with the local and surrounding community’s leadership. Following community leadership will ensure that the car-free zones don’t further gridlock, increase traffic, and are available during times when community is able to utilize the space. | <p>O8-10</p> | |
| <ul style="list-style-type: none"> • T 4.1: CBE has concerns regarding autonomous vehicles. One concern is that it could potentially displace workers from similar delivery jobs, harming low-income workers.⁷ Additionally, there is concern regarding the potential personal data breach and over policing of communities. Such autonomous vehicles have been found to record their surroundings using a mounted camera, we are concerned that such recordings could be sold to private companies or local police.⁸ This could be systematically dangerous to low-income, people of color who have historically been overpoliced. We also suggest the County directly partner with disability justice leaders and organizations to identify how to best support those living with different abilities who may benefit or be harmed by autonomous mobility. | <p>O8-11</p> | |
| <p>CBE urge the County to reprioritize investment in mass electric public transit instead of autonomous mobility due to safety concerns and unintended impacts to low-income workers.</p> | <p>O8-12</p> | |
| <p>CBE urge the County to reprioritize investment in mass electric public transit instead of autonomous mobility due to safety concerns and unintended impacts to low-income workers.</p> | <p>O8-13</p> | |

⁵ Revised Draft 2045 Climate Action Plan, available at: https://planning.lacounty.gov/wp-content/uploads/2023/03/LA_County_2045-CAP_Rev_Public_Draft_March_2023_Chapters.pdf

⁶ Issuu., Driverless Jobs: Autonomous Vehicles & A Just Transition for Black Drivers, (pg 12), 1 Sept 2021. <https://issuu.com/congressionalblackcaucusfoundation/docs/0821-cpar-driverless-jobs-02>

⁷ Issuu., Driverless Jobs: Autonomous Vehicles & A Just Transition for Black Drivers, (pg 4), 1 Sept 2021. <https://issuu.com/congressionalblackcaucusfoundation/docs/0821-cpar-driverless-jobs-02>

⁸ SFist, Report: SFPD Already Using Surveillance Video from Self-Driving Cars, 12 May 2022

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| <ul style="list-style-type: none"> • T 4.10 and T 6.7: Public transportation should be zero emission. “Low emission”, “Biomethane” and “Biogas” are not ambitious enough technologies to reach the CAP’s target goals. Reather these technologies further exacerbate health impacts in environmental justice communities and air quality and delay the transition to an electric bus fleet. Though low emission could qualify green hydrogen fuel cell transit, many communities have solely and adamantly advocated for electric buses. CBE urges the County to prioritize and commit to an electric transportation fleet at every opportunity. Electrification is cleaner, more efficient, and more technologically advanced than hydrogen transit, and further supports existing electric vehicle infrastructure. | <p>O8-14</p> |
| <ul style="list-style-type: none"> • T 9.2: All commercial equipment listed (i.e. forklifts, loaders, welders, saws, pumps, etc.) can be electrified. The Port of Long Beach has already been utilizing such equipment and the County should build on this success, reserving green hydrogen for sectors that cannot be electrified. | <p>O8-15</p> |
| <ul style="list-style-type: none"> • T 8.2 and T 8.4: We encourage the county to prioritize electrification over alternative fuels. Low emission fueling sources, including hydrogen, biomethane, biogas, and natural gas could further delay electrification and potentially create health and environmental impacts for environmental justice communities. Additionally, the streamlining of fueling infrastructure without proper and lengthy community engagement, health studies, and full CEQA analysis could lead to oversight of quality checks, assurances, safety requirements, and lack of proper training for contractors. | <p>O8-16</p> |
| | <p>O8-17</p> |
| <p><u>Building Decarbonization</u></p> | |
| <p>The decarbonization of residential buildings is an opportunity to both decrease GHG emissions and reinvest in people’s resilience. Low-income families and communities of color face a disproportionate energy burden by paying more than 30% of their income on energy bills.⁹ Further electrification and energy efficiency in people’s homes could alleviate financial and environmental burdens. However, it can also deeply impact peoples’ livelihoods if the transition is not done equitably. Here, we encourage the County to set a baseline platform that prohibits the displacement of tenants, cost of retrofits to be passed on to tenants, exacerbate energy burden, and harassment against tenants. We urge the County to prioritize upfront financial support to affordable housing in retrofits, support tenants with comfortable, local, and free housing during retrofits, mandate sufficient notice to tenants, and incorporate Indigenous land management and greening. The expansion of native landscapes can provide holistic GHG emissions reductions, energy efficiency and overall comfort to tenants. Additionally, CBE does not support the use of hydrogen in residential buildings.¹⁰ Direct electrification of homes and businesses is more efficient and safer than burning highly volatile, polluting hydrogen in enclosed buildings. We</p> | <p>O8-18</p> |
| <p></p> | <p>O8-19</p> |
| <p></p> | <p>O8-20</p> |

⁹ Climate Emergency Mobilization Office: Report on Equitable Building Decarbonization, 15 Sept 2022. <https://www.climate4la.org/wp-content/uploads/2022/09/Report-on-Equitable-Building-Decarbonization-FINAL-September-15-2022.pdf>

¹⁰ Appendix C, Environmental justice and environmental principles regarding the buildout of hydrogen in California, p. 6, 23 March 2023.

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| <p>urge the County to focus on the electrification of buildings to meet CAP goals rather than delay by exploring or considering the use of “other zero-emission fuel sources” for buildings.</p> | <p>O8-20 (cont.)</p> |
| <ul style="list-style-type: none"> • <u>E 1.5</u>: We support a comprehensive fund to support the decarbonization of new and existing affordable housing. This fund should provide energy efficiency improvements without increasing energy burdens on environmental and low-income communities who are systematically impacted by socio-economic factors. Additionally, this should be designed to leverage funding from state programs or local County funding opportunities. | <p>O8-21</p> |
| <ul style="list-style-type: none"> • <u>E 2.1</u>: Technical and financial assistance can provide the support necessary for affordable housing entities to meet an ordinance requirement that all new buildings are electric. We encourage the County to directly partner with mission-based affordable housing developers in order to create a program that addresses their concerns and needs. | <p>O8-22</p> |
| <ul style="list-style-type: none"> • <u>E 4.3</u>: The expansion of tree planting and green spaces directly supports local communities, curbs the urban heat island effect, and can lead to energy efficiency. As the County develops frameworks for decarbonization, there is a need to couple it with the expansion of green spaces and increased tree canopy. Ultimately, this is also an opportunity to address environmental racism by prioritizing Indigenous land management practices and reinvesting in communities of color. | <p>O8-23</p> |
| <p><u>Green Spaces</u></p> <p>Land management and expansion of green spaces supports GHG emissions reductions and overall health and environmental benefits. We strongly encourage the County to commit and prioritize Native greening efforts, rather than solely focus on technical and energy production methods. Natural landscapes can combat the urban heat island effect which could result in lowered energy consumption and encourage the use of public transportation. This combination could curb emissions from the top two higher GHG emitting sectors, transportation, and stationary sources. As such, we encourage the County to promote Strategy 9 as a core strategy. As the County progresses on building electrification, and expands green spaces, there is significant potential in GHG emissions reductions and support for environmental justice communities.</p> | <p>O8-24</p> |
| <ul style="list-style-type: none"> • <u>A3</u>: CBE supports the commitment to expand the County’s tree canopy and green spaces. We encourage the County prioritize Native trees, plants, and flowers that heal the soil, build connections to Indigenous communities, and support overall biodiversity and community health. As such, any trees removed must be replaced with Native trees. | <p>O8-25</p> |
| <p><u>CEQA Exemption</u></p> <p>CBE is also concerned that the CAP would expediate future CEQA discretionary projects as long as the project can demonstrate consistency with the CAP. In fact, projects consistent with the</p> | <p>O8-26</p> |

CAP would not be required additional greenhouse gas emission analysis or mitigation under CEQA, provided that a project’s EIR identifies the CAP requirements that are applicable to the project and adopt those requirements as mitigation measures. (p. 4-10) As such, we ask that the County revise the CAP to provide additional information on the types of discretionary projects that could potentially demonstrate consistency with the CAP.

O8-26
(cont.)

We believe that CEQA provides the public, and especially environmental justice communities, the opportunity to monitor and provide input on projects proposed in their communities. In fact, CBE strongly opposed the use of CEQA exemptions in the County’s Green Zones Ordinance because such exemptions could potentially contravene the Ordinance’s purpose of protecting already-overburdened communities from harmful projects.

Given the high rates of government reinvestment into environmental justice communities and the historic placement of energy production and storage facilities and refineries, we believe that a complete analysis of greenhouse gas emissions is necessary for all proposed projects in environmental justice communities. While in isolation a project may seem to minimally increase greenhouse gas emissions, a series of projects that could be consistent with the CAP could potentially create hotspots of higher greenhouse gas emissions.

O8-27

Conclusion

CBE appreciates the opportunity to provide feedback and comments on the 2045 Draft Climate Action Plan. Overall, we urge the County to prioritize electrification, expand access to solar and storage, increase electric public transit, recommit to Indigenous land management, and explore holistic community-led strategies that address climate impacts. We look forward to working with the County to ensure that strategies are reaching climate goals and supporting low-income communities of color.

O8-28

Thank you,

Darryl Molina-Sarmiento

Executive Director

Laura Gracia

Climate Adaptation and Resilience Enhancement (CARE) Coordinator

APPENDICES

Appendix A, CARB Draft Scoping Plan: AB32 Source Emissions Initial Modeling Results

Appendix B, Communities for a Better Environment: Resilience Hub Survey Results Infographic for Wilmington, CA. November 2022

Appendix C, Environmental justice and environmental principles regarding the buildout of hydrogen in California

Appendix A

April 4, 2022

California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Energy + Environmental Economics (E3)
44 Montgomery Street, Suite 1500
San Francisco, California 94104



Submitted through CARB Portal

Re: CARB Draft Scoping Plan: AB32 Source Emissions Initial Modeling Results

To CARB and E3 Representatives:

Communities for a Better Environment (“CBE”) submits the following comments on the CARB Draft Scoping Plan: AB32 Source Emissions Initial Modeling Results (“Initial Modeling Results”) presented by E3 at the California Air Resources Board (“CARB”) Public Workshop on the 2022 Scoping Plan Update – Initial Modeling Results Workshop on March 15, 2022. The comments focus on the Petroleum Refining and associated Hydrogen Production sector.¹ (Note that we are separately commenting about the electricity sector.) We request the publication of the detailed input assumptions used in the modeling soon as possible, even if only available in draft form.

CBE is a statewide environmental justice (“EJ”) organization with a strong focus on addressing the fossil fuel energy sources that heavily pollute the California communities of Wilmington, Southeast Los Angeles, East Oakland, Richmond, and surrounding areas where we organize, live, and work. Climate change, smog, and toxic emissions severely and disproportionately impact our communities, including oil refineries, oil wells and drilling, power plants, transportation and other sources.

Despite our appreciation for the modeling work and presentation from E3, we are disturbed by the glaring omission of detailed written information explaining critical underlying input assumptions of the PATHWAYS modeling results. During the Q&A portion of the March 15 workshop, CARB indicated it does not intend to correct this serious flaw in the public process and plans to release that information alongside the draft Scoping Plan. At best, failing to disclose such critical assumptions creates fertile ground for extremely unrealistic concepts that skews public discourse and creates a bias for poor decision-making. Without this information, the public is left to speculate. Furthermore, it is essential that CARB disclose and ultimately revise its assumptions for the refinery sector. A recent OEHHA analysis indicated that communities living around refineries and hydrogen plants have seen an increase in GHG and PM2.5 toxic emissions during the period of the Cap and Trade program.² Four of the top five entities

¹ SP22-MODEL-RESULTS-E3-PPT.PDF, available at: <https://ww2.arb.ca.gov/resources/documents/2022-scoping-plan-update-initial-modeling-results-workshop>.

² Office of Environmental Health Hazard Assessment (OEHHA), Impacts of Greenhouse Gas Limits Within Disadvantaged Communities: Progress Toward Reducing Inequities, Feb. 2022, Table 2. Direction of Emission Changes at Facilities Near High-Scoring CES Communities Varies by Pollutant and Sector (2018 Compared to 2012 Emissions), p. 38

that use the most offsets own petroleum refineries.³ The 2022 Scoping Plan must use the best available evidence to provide a clear path forward for the refining sector and refinery communities.

In the case of the Petroleum Refinery sector, the lack of real-world technical evidence to support the assumptions risks premature, or worse, predetermined policy decision-making. The comments below ask questions regarding the reasoning and inputs behind several key results and figures. **These include:**

- the assumed carbon capture rates on individual pieces of equipment and across a whole refinery,
- the lack of evidence of operational and comparable carbon capture and sequestration (“CCS”) systems at existing refineries,
- hypothetical CCS-driven emission reduction timelines which inexplicably start immediately,
- non-CCS versus CCS starting points,
- assessment of major physical constraints for siting CCS equipment at California refineries,
- and accompanying safety implications, for starters.

I. Present capture rate assumptions and emissions reductions results for petroleum refining GHGs indicate alarming need for disclosure of additional assumptions and rigorous review of corresponding evidence base.

A. REQUEST FOR RESPONSE: Please clarify the “90% CCS capture” percentage assumption in the context of a whole refinery’s emissions.

1. Please detail the total percentage of the overall refinery that is assumed to be covered by CCS,
2. Please detail which parts of the refinery are assumed covered by CCS, including oil refinery hydrogen plants.
3. Please also refer to Table 2-1 of the South Coast 1109.1 report, later excerpted, which lists hundreds of different major refinery combustion equipment (heaters, boilers, incinerators, turbines, FCCUs, calciners, flares, etc.). Did the modeling consider the feasibility of applying CCS to such a complex set of equipment at California refineries, when determining the percentage of emissions covered by CCS? Please detail which specific types of the listed equipment are assumed covered.
4. Please explain whether or how much capture may occur over combustion sources, and whether the percentage is only for carbon dioxide or additionally methane fugitive emissions and other pollutants. Please provide the detailed accompanying spreadsheets used for the relevant portions of the GHG inventory.

³ Id. at 8

5. Please provide citations on the basis of the assumption that 90% of emissions are captured, where CCS is applied within a refinery, and also identify all existing and operational refinery CCS systems in place in the U.S. and in California that can help assess the validity of the modeling assumptions.

During an Environmental Justice Advisory Committee (EJAC) Fossil Fuel Transportation Working Group, CARB staff indicated the Quest carbon capture and storage project in Alberta provided CARB with a basis for understanding CCS on refineries. We highly discourage CARB from relying on the existence of this project to validate the idea of investing in CCS on refineries generally. The project cost \$1.35B (of which \$865 Million came from the Canadian government⁴) and only captured a third of the upgrader's emissions. And despite initially claiming that its project Polaris would capture more than 90% of emissions,⁵ Shell now states that it is only expected to capture up to 40% from the refinery as a whole and up to 30% from the chemicals plant.⁶ We request an explanation for the capture assumption that addresses which part of the Quest project data CARB has considered, if at all.

B. REQUEST FOR RESPONSE: Please explain the reasoning behind the starting time and levels of emission reductions results in scenarios with CCS.

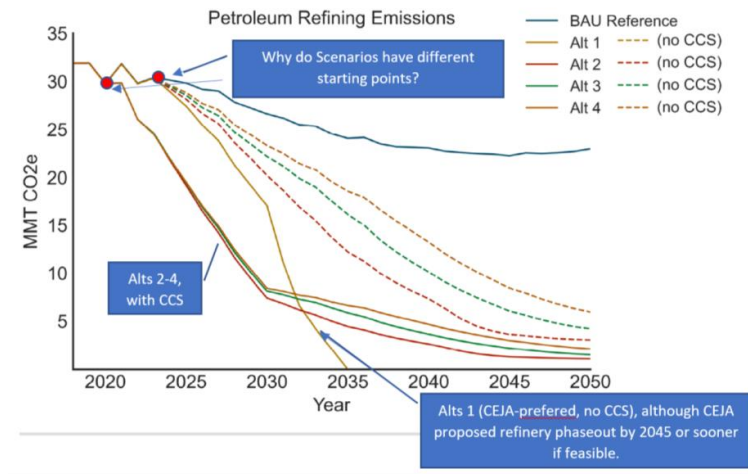
To assist comments on the oil refining sector, below is an annotated version of the graph on refining emissions as presented on Slide 10 at the workshop on March 15, 2022. This graph includes projected emissions in the four Alternatives ("Alt") scenarios 1-4, plus BAU ("Business As Usual").

We interpret this graph to mean, as recommended by the Environmental Justice Advisory Committee ("EJAC"), Alt 1 for refineries does not include CCS. As a result, there is only one Alt 1 line shown, whereas Alts 2-4 are shown both with and without CCS. The three closely grouped solid lines which fall quickly prior to 2030 are Alts 2-4 *with* CCS. The dotted lines are Alts 2-4 *without* CCS.

⁴ <https://sequestration.mit.edu/tools/projects/quest.html>

⁵ See: <https://www.cnn.com/2022/01/24/shell-ccs-facility-in-canada-emits-more-than-it-captures-study-says.html> "The hydrogen projects we're planning – like Polaris – will use a new technology that captures more than 90% of emissions."

⁶ See: https://www.shell.ca/en_ca/media/news-and-media-releases/news-releases-2021/shell-proposes-large-scale-ccs-facility-in-alberta.html



Given that **no CCS units currently exist at California oil refineries**, and for reasons further detailed below, this sharp decline indicates magical thinking around the current state of California refineries and refinery carbon capture technology.

6. Please provide any underlying evidence base for the assumption that results in all three scenarios with CCS (Alternatives 2-4, shown as three tightly-grouped solid lines above) rapidly declining through 2030, *starting immediately*.
7. Please explain why non-CCS scenarios and CCS scenarios use different starting points of emissions. Why do CCS scenarios begin earlier at a lower level of refinery emissions (which might reflect low refinery production and emissions during the pandemic), yet all the non-CCS scenarios start at the higher level, apparently after refinery production and emissions increased again. Or is there another reason for the spike in emissions after 2021?

II. Carbon capture of high percentages of refinery carbon emissions is unlikely at refineries due to their complexity, and the infeasibility of adding controls to hundreds of massive combustion units and thousands of fugitive sources.

Setting any assumptions for a new technology for refineries must be, at least in part, informed by the immensely complex and large physical scale of oil refinery emissions sources and controls. Just last fall 2021, the South Coast Air Quality Management District (SCAQMD) adopted Regulation 1109.1 to address high emissions of Nitrogen Oxides (NO_x) at oil refineries after years of rule development, and also after decades of failure of the NO_x pollution trading program in the South Coast called RECLAIM.

This is relevant to the Scoping Plan analysis and modeling, because NOx is another combustion pollutant emitted with CO2 when hydrocarbon fuels are burned or otherwise used at oil refineries.⁷ As a result, the data collected on these combustion sources, and the engineering difficulties in siting emissions controls, is also at issue in the Scoping Plan process related to evaluations of Carbon Capture equipment.

The South Coast District performed an updated assessment of the numbers and types of individual combustion units at South Coast refineries. As the largest oil refining region in California, it serves as a ready example of statewide issues and source of critical insights. The next largest region is the Bay Area, with additional substantial refining activities in Bakersfield and Santa Maria.

The South Coast 1109.1 regulation staff report included the following graphics, charts, and tables identifying the large number of major refinery and refinery hydrogen plant sources at play in the South Coast alone. Figure 5 for instance identifies 9 petroleum refineries, 3 small refineries, and 4 related Hydrogen Plants and Sulfuric Acid Plants that are substantial emissions sources (p. 2-1):



Figure 5. PR 1109.1 Affected Facilities

The SCAQMD report identified hundreds of major combustion sources within these facilities. Each one is massive - one refinery heater can combust as much fuel in an hour as four homes using natural gas burn in a year.⁸ For a visual, the google map below shows two massive coker heaters at the Marathon (Tesoro) Wilmington refinery, out of the hundreds of combustion units at South Coast refineries and related operations. They dwarf the warehouses and container units seen across the channel and hide multiple burners inside. The NOx, CO2, and other pollutants emitted through the tall stacks are invisible.

⁷ For example, SCAQMD Rule 1109.1 staff report, p. A-1 describes combustion reactions resulting on both NOx and CO2 emissions, such as Fuel NOx Formation ($R-N + O_2 \rightarrow NO, NO_2, CO_2, H_2O, \text{trace species}$), or Prompt NOx Formation ($R + O_2 + N_2 \rightarrow NO, NO_2, CO_2, H_2O, \text{trace species}$).

⁸ A million BTUs (British Thermal Units) of heat content is present in approximately 1000 cubic feet of natural gas (which varies a little in energy content). “In 2012, the average U.S. home consumed 61,200 cubic feet of natural gas (or 62.7 million Btu).” ([American Gas Association Playbook](#), 2015, p. 78) So a refinery heater rated at 250 million BTUs per hour can burn the same amount of fuel hourly as about 4 homes burn in an entire year. ($250/62.7 \approx 4$)



[Google map of Marathon LA Refinery](#)

For an idea of the complexity of refineries in the Wilmington / Carson / W. Long Beach area, here are a few refinery views from google maps:



Panning further out shows the extreme density of the area, with 5 oil refineries (two Marathon, two Phillips 66, and one Valero), numerous warehouses and other industrial facilities, thousands of homes, and numerous schools and sensitive receptors:

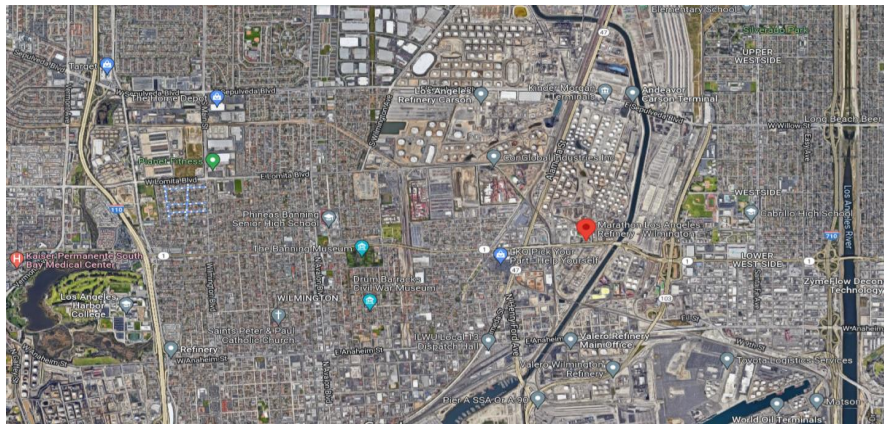


Table 2.1 from the South Coast staff report below identifies 228 Process and SMR⁹ heaters and boilers in the South Coast, plus 56 other combustion units. (p. 2-3)

Table 2-1. PR 1109.1 Affected Equipment by Facility

| | Process Heater/SMR Heater/Boiler | SRU/TG Incinerator | Vapor Incinerator | Gas Turbine | Start-Up Heater/Boiler | FCCU | Coke Calciner | Flare |
|------------------------------|----------------------------------|--------------------|-------------------|-------------|------------------------|----------|---------------|----------|
| Tesoro-Carson | 30 | 2 | 0 | 4 | 1 | 1 | 0 | 0 |
| Tesoro-Wilmington | 33 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| Tesoro-Sulfur Recovery Plant | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tesoro-Coke Calciner | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Torrance | 28 | 2 | 2 | 0 | 1 | 1 | 0 | 0 |
| Chevron | 37 | 4 | 5 | 4 | 1 | 1 | 0 | 0 |
| P66-Carson | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| P66-Wilmington | 34 | 2 | 0 | 1 | 2 | 1 | 0 | 0 |
| Ultramar | 19 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| AltAir | 25 | 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| Lunday Thagard | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Air Products-Carson | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Air Products-Wilmington | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Air Liquide | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eco-Services | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| Valero Asphalt Plant | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 228 | 16 | 13 | 12 | 8 | 5 | 1 | 1 |

When faced with regulating the many combustion sources, oil refiners complained of the need for long timelines. The final rule includes implementation through 2035, fourteen years after adoption, in addition to a 3-year rulemaking process.

These issues illustrate the complexity of the detailed rulemaking process, engineering and design, and construction of complex oil refinery emissions controls. **These realities underline the absurdity of setting modeling assumptions (even if space could be found), that assume non-existent CCS technologies can be quickly constructed and implemented across broad parts of California oil refineries.** This is to say nothing of the high costs.

III. Carbon capture at scale is unrealistic at California refineries due to major limitations in physical space at oil refineries.

During many regulatory proceedings, oil refineries have successfully argued against adding pollution controls, based on physical space limitations. For example, SCAQMD relaxed the originally

⁹ Steam Methane Reforming

proposed NOx standard under Regulation 1109.1 from the demonstrated achievable level of 2 ppm, up to 5ppm and higher. Refiners claimed it would require additional stages of Selective Catalytic Reduction (SCR) equipment to meet the 2ppm standard, without sufficient physical space available. The same combustion sources at refineries which emit NOx are also major emitters of GHGs – including hundreds of Boilers & Heaters identified in South Coast rulemaking.

The space issue was not a small or rare complaint. The Staff Report for SCAQMD Rule 1109.1 (Heaters and Boilers and Other Refinery Combustion Sources) identified widespread industry and Air District concerns about space constraints in extremely old facilities.¹⁰ As reported in the Staff Report, the Fossil Energy Research Corporation Assessment (FERCo) conducted site visits to the five major refineries, Chevron, Marathon (Tesoro Refinery), Phillips 66, Torrance, and Valero, to evaluate and discuss facility constraints and challenges of implementing SCR on specific refinery systems. The main concern refinery stakeholders frequently raised to staff was the issue of space and the ability to install post-combustion control.¹¹ Based on the site visits, FERCo concluded that *all the facilities exhibited space limitations to varying degrees*. Not all open space that surrounds a unit is available for an SCR system, as *open space may be necessary for maintenance work and thus, safety*.¹² As a result, advanced technology, engineering, and design for additional pollution controls are required specifically to address space constraints.¹³ The cost for two facilities operating around 8 ppmv NOx to upgrade and meet 8 ppmv NOx was approximately \$1 million to \$3 million, but to completely replace the SCR or add new technology to meet 2 ppmv *while addressing space constraints* ranged from \$75 million to \$220 million.¹⁴

Another important example includes the South Coast Rule 1410 rulemaking process, which would have banned the use of deadly Hydrogen Fluoride or Modified Hydrogen Fluoride at two South Coast refineries. This regulation was killed by industry complaints, despite the County of LA’s Health Dept. stating that the use of this chemical caused the risk of severe injury or death to a million people in the region. Despite the dire need for regulation, one reason given by the industry opposing the regulation was space constraints at the Valero Wilmington refinery: “Of particular note, available plot space adjacent to the existing HF alkylation unit was identified as a key criteria for success; *as the District is well aware, such plot space does not exist at the Wilmington Refinery*.”¹⁵

¹⁰ “The affected refineries were built 50 to over 100 years ago and while equipment has changed over the years, most of the equipment affected by the rule is old and **the spacing configuration of the sites are dense**. Thus, to install pollution control requires creative engineering and design to accommodate the space necessary and perform properly. Some projects currently taking place involve building vertically requiring deep earth pylons to support the structure housing the control technology or constructing complex ducting to house the SCR catalyst beds that stretch long distances horizontally away from the basic equipment”, p. 2-19; “Replacing conventional burners with LNB or ULNB often requires special attention because of the flame dimensions and limited space within a refinery process heater,” p. A-6; Refinery stakeholders immediately raised the concern that staff did not consider space availability and constraints for this type of design. Refineries cannot accommodate a second SCR reactor which makes the alternative pathway not technically feasible, p. B-20.

¹¹ p. 2-47.

¹² “Despite the space limitations, some facilities have devised several workarounds such as vertical SCR orientation, running ductwork over existing roadways, and replacement of air heaters with SCR reactors. In addition, FERCo also identified that the locations or sites for SCR installations may hold many unknowns such as electrical capacity for the SCR and uncertainties that can complicate foundation work such as underground pipes,” p. 2-47.

¹³ p. 2-36.

¹⁴ p. 2-36.

¹⁵ Valero letter to AQMD, Sept. 18, 2017 to Susan Nakamura, South Coast Air Quality Management District, in response to August 23 PR1410 Working Group Meeting, p. 2, available at: <https://www.aqmd.gov/docs/default->

Especially after the adoption and planning of broad application of SCR (Selective Catalytic Reduction) controls for NOx, oil refinery real estate will be even more constrained. The record in these proceedings illustrates the foolishness of assuming that additional end of pipe emissions controls are a feasible choice even with regard to a well-established technology, unlike CCS, which does not exist at California refineries.

IV. Oil and chemical plant risk assessment literature states that increasing oil refinery density also increases dangers during fires and explosions.

Oil and chemical industry risk management literature also identifies the need to maintain adequate space for safety at oil refineries (which already regularly have major explosions and fires). For example, an analysis called *Oil and Chemical Plant Layout and Spacing* found:

Loss experience clearly shows that fires or explosions in congested areas of oil and chemical plants can result in extensive losses. Wherever explosion or fire hazards exist, proper plant layout and adequate spacing between hazards are essential to loss prevention and control. Layout relates to the relative position of equipment or units within a given site. Spacing pertains to minimum distances between units or equipment.¹⁶

While this analysis identified many specific hazards, it recommended performing detailed site by site risk analysis, and identified general comments about access between process units. We have excerpted some recommendations to illustrate the complexity of the safety issues, but also request that CARB and modelers consider the entire document and its implications for realistic assessment of added CCS at oil refineries. Importantly, the final recommendation on this list, which was highlighted in bold by the authors, stated: **“Do not consider the clear area between units as a future area for process expansion.”**

Provide access roadways between blocks to allow each section of the plant to be accessible from at least two directions.

- Avoid dead end roads. • Size road widths and clearances to handle large moving equipment and emergency vehicles or to a minimum of 28 ft (8.5 m), whichever is greater.
- Maintain sufficient overhead and lateral clearances for trucks and cranes to avoid hitting piping racks, pipe ways, tanks or hydrants.
- Do not expose roads to fire from drainage ditches and pipeways.

source/rule-book/Proposed-Rules/1410/1410-comment-letters/valero-2017-09-18-working-group-meeting-5.pdf?sfvrsn=6

¹⁶ Property Risk Consulting Guidelines, A Publication of AXA XL Risk Consulting, PRC.2.5.2, Copyright © 2020, AXA XL Risk Consulting, available at: https://axaxl.com/prc-guidelines/-/media/axaxl/files/pdfs/prc-guidelines/prc-2/prc252oilandchemicalplantlayoutandspacingv1.pdf?sc_lang=en&hash=996EA28071174510C4DA5D35102A9222

- Slightly elevate roads in areas subject to local flooding. • Locate hydrants and monitors along roads to allow easy hook-up of firefighting trucks.
- Provide at least two entrances to the plant for emergency vehicles to prevent the possibility of vehicles being blocked during an incident, e.g., open bridge, railway.
- Plan and implement a “Roadway Closure” permit system authorized and controlled by site Emergency Response personnel as part of the site impairment handling system.

Provide spacing between units based upon the greater of either Table 1 or a hazard assessment. The space between battery limits of adjoining units should be kept clear and open.

Do not consider the clear area between units as a future area for process expansion.

Thus, increases in hazards at oil refineries through broad application of CCS at the hundreds of combustion units at oil refineries represents a *new* safety hazard, increasing the risk for workers and neighbors.

V. CARB Should Request New Modeling to Reflect a 2045 Phasedown Target Without CCS to Support a Commitment to a Statewide Plan to Manage Refinery Phasedown.

Ultimately, we urge CARB to begin crafting new modeling assumptions for the refining sector. We support the EJAC recommendation to model a 2045 phaseout date *without* the use of CCS. Currently, the initial modeling results are rife with cognitive dissonance between phasing out fossil fuel transportation while allowing oil refineries to continue operating in disproportionately pollution burdened communities of color.

California must lead by choosing modeling inputs that reflect the values of environmental justice *and* which will succeed in truly addressing impending climate disaster. Fossil fuel corporations repeatedly and regularly state to investors their intentions to *expand exports* of transportation fuels produced at California oil refineries (including gasoline, diesel, etc.), to add emissions during a climate crisis. Exporting outside of California over the Pacific Rim, prolonging the life of otherwise stranded assets which carry multi-billion dollar clean up liabilities, leaves California environmental justice communities holding the bag of continued harmful toxic emissions and eventual remediation liabilities or workers’ pension losses at the point of bankruptcy. For a just and equitable transition, CARB must sound the alarm on the need for a fossil fuel worker and community safety net and commit to develop a plan by 2024 to manage the decline and coordinate the phasedown of California oil refineries by 2045. As the EJAC recommendations discussed and the comments above reflect, the oil refineries are enormously complex and require thoughtful and rigorous planning now.

We appreciate the hard work involved in this modeling, including the many valid assumptions and results that do appear. However, the public, both community-based organizations and corporations alike, need transparent access to the assumptions used and to understand which parts are unchangeable technical matters and which are a matter of policy choice.

We look forward to the background documentation so we can more fully comment in the future.

Sincerely;

Julia May, Senior Scientist, CBE

Connie Cho, Associate Attorney, CBE

Kiran Chawla, JD/PhD Candidate, '24,
Stanford Environmental Law Pro Bono Project

Appendix B

COMMUNITIES
FOR A BETTER
ENVIRONMENT
established 1978

Resilience Hubs

The CARE Program sees the climate crisis through an environmental justice lens. We support community-led organizing to develop community resilience and climate solutions such as resilience hubs. Resilience hubs provide year-round support and resources during climate events, emergency response, and create space for frontline residents to gather and practice self-determination. Through community surveying in Wilmington, we identified a few priorities necessary to create resilience hubs, described below:

Solar panels absorb sunlight and create electricity. Connecting these panels to a solar battery charges the battery. During a power outage, the charged battery can power outlets for phone charging, lights, air filtration, refrigerators, and much more.



Air conditioning and air filtration helps save lives during extreme heat, wildfire season, or during poor air quality days.

Preference was expressed for expanded hours (8 am - 9 pm). Creating an overnight plan would allow the use of the center during an emergency.



Culturally conscious, multi-lingual, holistic health trained staff are vital to Resilience Hubs to provide support and materials like food, water, and emergency kits- which are necessary for daily life and emergency preparedness

A community garden can provide green space, increase access to local nutritional foods and build relationships.



The impacts from environmental injustice and climate change have disproportionately impacted communities living next to heavy industry. As we build healthy and resilient communities, we must uplift environmental justice and community-led solutions to deliver transformative solutions to respond to the climate crisis.

During our surveying, we asked Wilmington community members what they were most concerned about (see "Top 10 Concerns"). The following resources were requested by frontline residents to combat the worsening climate crisis:

Top 10 Concerns:

- Earthquakes
- Refinery Flaring
- Air Pollution
- Extreme Heat
- Wildfires
- Water + Food Insecurity
- Oil Drilling
- Drought
- Tsunami
- Power Outage



Counseling, Legal/Financial Resources & Support



Food, Water & Refrigeration



Emergency/First Aid Kits, Fire Prevention & Earthquake Response Materials



Phone Charging

Is there anything missing that you would like to see?



Tutoring, Health & Youth Support Services



Hub Within Walking Distance, Complimentary Transportation & EV Charging Stations



Cultural, Art & Organizing Activities

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R

Communities for a Better Environment (CBE) is a statewide environmental justice organization. Our mission is to build people’s power in California’s communities of color and low-income communities to achieve environmental health and justice by preventing and reducing pollution while building a Just Transition towards healthy neighborhoods.

Infographic provided by the Climate Adaptation and Resiliency Enhancement (CARE) Program

Get Involved!

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 @cbecal  @cbecal

www.cbecal.org

Appendix C



March 23, 2023

Governor Gavin Newsom
1021 O Street, Suite 9000
Sacramento, CA 95814

Senate President pro Tempore Toni Atkins
1021 O Street, Suite 8518
Sacramento, CA 95814

Speaker Anthony Rendon
1021 O Street, Suite 8330
Sacramento, CA 95814

Re: Environmental justice and environmental principles regarding the buildout of hydrogen in California

Dear Governor Newsom, Pro Tem Atkins, and Speaker Rendon,

On behalf of the undersigned organizations, we respectfully raise vital concerns, considerations, and principles on the buildout of hydrogen in California and its use as part of the state's pathway to decarbonization. Without proper guardrails, hydrogen production threatens to increase climate pollution and make it harder to reach California's ambitious climate goals. Hydrogen could have potential benefits in the fight against climate change, but it is critical to understand its limitations. Before California moves to rely heavily on hydrogen to meet its climate goals, it is essential to understand how and where hydrogen is produced, stored, delivered, and used. Even green hydrogen can itself have short-term climate warming impacts and cause harm to local communities if implemented poorly and without stringent safeguards.

We are diverse groups that agree on bedrock principles for the limited role of hydrogen in meeting California's climate and air quality goals; even this letter cannot capture each group's complete perspective on hydrogen policy. As California considers the role of hydrogen in our decarbonized future, we urge you to enact measures that will:

1. Ensure that any hydrogen used or produced in California is produced via electrolysis through clean and renewable sources and prohibit hydrogen produced with fossil fuels or other polluting feedstocks and processes;
2. Ensure robust monitoring, prevention, and enforcement against leaks in hydrogen infrastructure;
3. Discourage the use of hydrogen for end uses better served by electrification, such as light duty transportation and providing space and water heating in homes and businesses;
4. Avoid blending hydrogen into existing pipelines and minimize other forms of hydrogen transportation;
5. Ensure community engagement from design to completion of any hydrogen project.

1) Hydrogen produced with fossil fuels or other polluting feedstocks and processes is not a climate solution and cannot be used for hydrogen production in California.

Currently, California's supply of hydrogen comes almost entirely from fossil fuels and is produced through a process that emits health-harming pollution in the communities on the fencelines of the state's oil refineries. Hydrogen production by any means other than clean, renewable-powered electrolysis only entrenches the continued use of fossil fuels, plastics, and biogas, even when paired with carbon capture and sequestration (CCS) technology. Methane leakage from producing hydrogen using natural gas and CCS technologies is of significant concern; the climate effects of methane leakage are often underestimated in hydrogen assessments,¹ and methane is a powerful greenhouse gas with high global warming potential. The level of climate harm only increases if there is embedded carbon in the lifecycle analysis of

¹ Ilissa B. Ocko and Steven P. Hamburg, Climate consequences of hydrogen emissions, Atmospheric Chemistry and Physics (July 2022). <https://acp.copernicus.org/articles/22/9349/2022/acp-22-9349-2022.pdf>

hydrogen. Biogas feedstocks, including dairy biogas, must be excluded from all hydrogen production.

The exclusion of hydrogen produced through polluting industrial processes is also a public health imperative. Carbon dioxide is not the only important pollutant produced through the hydrogen generation process, especially when not produced with renewable energy. Currently, petrochemical companies rely on the steam reformation of fossil gas to produce nearly all of California's hydrogen supply. Steam methane reformation emits health-harming pollution such as nitrogen oxides, fine particulate matter, and carbon monoxide and these facilities are primarily located in disadvantaged communities on the fencelines of California's oil refineries. Policymakers must guard against a build-out of steam methane reformation infrastructure or other hydrogen production equipment that would exacerbate California's air quality crisis.

2) Any hydrogen project must consider the environmental impact of hydrogen including the climate warming impact of leaks and water resource demands.

Hydrogen is not inherently a net benefit for the climate – even when it is produced through electrolysis. Hydrogen itself is an indirect greenhouse gas.² While it doesn't trap heat, hydrogen, through a series of chemical reactions, increases the concentration of other greenhouse gases like methane that accelerate the rate of warming. This means that hydrogen itself has a short-lived but powerful impact on the climate, even when produced with renewable energy-powered electrolysis.

Hydrogen is also a very small and slippery molecule and leaks easily into the atmosphere.³ Any rapid expansion of hydrogen infrastructure (pipelines, storage tanks, etc.) would increase the opportunity for hydrogen to leak.

Because of the inherent climate risk posed by hydrogen use, California's approach must include robust leak detection and monitoring to prevent or swiftly repair leaks of any size. There is emerging consensus among the scientific community on hydrogen's warming impact as a powerful short-lived indirect greenhouse gas; it is a highly potent gas given its indirect impacts as previously discussed. Its potency also changes over different time horizons; it is more powerful over a 20-year period than a 100-year period, but the short-term effects are not typically measured in assessments. When monitoring leakage, hydrogen's impact should be measured both in the short and long term. Minimizing or eliminating hydrogen leakage is absolutely critical to the success of hydrogen as part of the solution to climate change.

² D. Ehhalt and M. Prather, et al, Atmospheric Chemistry and Greenhouse Gases: Intergovernmental Panel on Climate Change (2018). <https://www.ipcc.ch/site/assets/uploads/2018/03/TAR-04.pdf>

³ Shanti Menon, Everyone's excited about this new climate solution, but it could create a new climate problem, Environmental Defense Fund (July 2022). <https://www.edf.org/article/we-need-talk-about-hydrogen>

Furthermore, hydrogen projects must account for the full climate impact of upstream emissions as well as of the hydrogen itself as an indirect, short-lived greenhouse gas. To that end, hydrogen use must include a full lifecycle analysis of emissions associated with its production, transportation, storage, and use.

Production of hydrogen through electrolysis also requires water, though it is not as water-intensive as the steam methane reformation process that industry uses to produce hydrogen today.⁴ As California grows its renewable hydrogen sector, consideration of water resource demands must be taken into consideration.

3) Hydrogen should only be used in limited, hard-to-electrify sectors; not sectors that could decarbonize more efficiently through electrification.

Given the risks of a rapid, large-scale buildout of hydrogen production, including its climate warming potential, California should only encourage the use of hydrogen, if at all, for hard-to-decarbonize sectors such as steel, plate glass, cement manufacturing, or as an alternative fuel for maritime shipping, aviation, and long-haul heavy-duty trucking.

Given its relative energy intensity, even green hydrogen risks squandering renewable energy if it is used in end uses that could more efficiently be directly electrified, like the vast majority of road-transportation, cargo-handling equipment, and residential and commercial space heating needs, as well as a large share of industrial heating needs. Moreover, it would be inappropriate to burn hydrogen in residential and commercial buildings or in industrial heating applications that have electric alternatives because hydrogen combustion emits lung-damaging pollution.⁵ California should avoid promoting hydrogen use of any kind in these end uses.

Hydrogen is not efficient or well-suited to all sectors, and should not be used as a catch-all decarbonization solution or to delay electrification. Analysis from the Environmental Defense Fund shows that using green hydrogen in passenger vehicles would require much greater quantities of renewable energy – perhaps as much as 2 to 5 times as much renewable energy – than direct electrification of light duty transportation.⁶ An even more significant “energy penalty” emerges in the use of hydrogen for home heating; it is far more efficient to use renewable energy to electrify passenger vehicles and heat homes than to use renewable energy to produce hydrogen.

⁴ Andi Mehmeti et al, Life Cycle Assessment and Water Footprint of Hydrogen Production Methods: From Conventional to Emerging Technologies, *Environments* (February 2018). <https://www.mdpi.com/2076-3298/5/2/24>

⁵ Sara Baldwin, et al, Assessing the Viability of Hydrogen Proposals: Considerations for State Utility Regulators and Policymakers, *Energy Innovation* (March 2022) pg 9, <https://energyinnovation.org/wp-content/uploads/2022/03/Assessing-the-Viability-of-Hydrogen-Proposals.pdf>.

⁶ Eriko Shrestha and Tianyi Sun, Rule #1 of deploying hydrogen: electrify first, *Environmental Defense Fund* (January 2023). <https://blogs.edf.org/energyexchange/2023/01/30/rule-1-of-deploying-hydrogen-electrify-first/>

A widespread transition to electrification is also necessary to address California's air quality crisis, whereas using equipment that burns hydrogen could worsen air quality. In some hard-to-decarbonize sectors such as steel manufacturing or maritime shipping, renewables-based hydrogen could play a valuable role in decarbonization. But in many other sectors, direct electrification is a much safer and more energy efficient route. Therefore, hydrogen should be considered a last resort, not a silver bullet. Furthermore, as is discussed in more detail in following sections, transportation of hydrogen and proposed blending of hydrogen in existing pipelines pose significant leakage risks, further limiting hydrogen's potential use for sectors beyond those mentioned here.

4) California should only use hydrogen produced via electrolysis through renewable sources.

Within the specific sectors that are best suited for hydrogen use, it is crucial that the only hydrogen used is produced via renewable-powered electrolysis. Strict standards for hydrogen production are essential because emissions-intensive hydrogen production technologies could worsen the climate crisis and harm public health in California's most vulnerable communities. Hydrogen is not an inherently 'climate-neutral' source of energy; its effects on the climate, positive or negative, depend on where and how it is produced.

Renewable electrolytic hydrogen production must meet certain standards to ensure it actually delivers climate and public health benefits. First, any renewable hydrogen developed must simultaneously build out renewable sources in tandem to support them. This is necessary to prevent the problem of "resource shuffling," in which the increased demand on renewable energy resources results in pushing demand back to fossil fuel resources.⁷ By building out renewable energy sources in tandem with renewable hydrogen projects, California can ensure that its renewable energy generation capacity is expanded and that the renewable hydrogen industry is supported with a stable and renewable power supply.

The threat of increased pollution is particularly acute when hydrogen producers use electricity from the grid. A hydrogen producer that relies on grid electricity cannot meaningfully claim to use renewable power unless it meets the following conditions: (1) it must support additional renewable electricity on the grid (i.e., renewable electricity that would not have existed on the grid but for the electrolyzer's demand), (2) the renewable electricity must be deliverable to the same balancing authority where the electrolyzer is located, (3) the producer must use the renewable electricity in the same hour that it's delivered onto the grid, and (4) it retires all renewable energy credits (RECs) associated with this electricity. Without all of these guardrails, fossil-fuel power generators will likely ramp up and spew more health-harming pollution into neighboring communities to serve hydrogen producers. About half of the state's gas-fired power plants are located in CalEnviroScreen defined disadvantaged communities. Furthermore,

⁷ Sasan Saadat and Sara Gersen, Reclaiming Hydrogen for a Renewable Future: Distinguishing Oil & Gas Industry Spin from Zero-Emissions Solutions, Earthjustice (August 2021). https://earthjustice.org/wp-content/uploads/hydrogen_earthjustice_2021.pdf

hydrogen produced from average grid electricity is even more carbon intensive than both incumbent gray hydrogen and fossil fuels like diesel.⁸

5) Hydrogen should not be blended in existing natural gas pipelines and co-location of production and end use should be prioritized.

Because hydrogen leaks easily, one key strategy to avoid any amount of leakage is to move it around as little as possible. Transporting hydrogen increases leakage risk whether by rail, truck, or pipeline. To the extent possible, hydrogen should be produced near the few appropriate end uses to minimize leakage.

Blending hydrogen into existing natural gas pipelines presents significant safety concerns and requires a massive investment in infrastructure to ensure compatibility and integrity. Studies have shown that hydrogen blends up to 20% offer only marginal climate benefits, even without considering the risk of leakage, and could potentially compromise the safety of pipelines made of steel or polymeric materials.⁹ The Hydrogen Blending Impacts Study that the University of California, Riverside performed for the California Public Utilities Commission did not identify a level of hydrogen blending that would not jeopardize safety and reliability.¹⁰ The compatibility of end-use appliances, such as cooktop burners and heating furnaces, is also a concern. Building infrastructure to support hydrogen blending would require a significant investment in retrofitting existing natural gas pipelines and ensuring their safety, making it a challenging and expensive proposition. Policymakers must focus on ending reliance on the gas distribution system through rapid and widespread electrification because rapid electrification will advance both climate and air quality goals, whereas injecting hydrogen into the gas distribution system threatens to increase health-harming air pollution.

6) Community engagement is imperative from the start of project development through to project completion.

⁸ According to data CARB has compiled for the Low Carbon Fuel Standard program, hydrogen produced through the electrolysis of California's grid-average electricity has a carbon intensity of 164.46 gCO₂e/MJ, far higher than diesel's carbon intensity of 100.45 gCO₂e/MJ. CARB, Table 7-1. Lookup Table for Gasoline and Diesel and Fuels that Substitute for Gasoline and Diesel, https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/ca-greet/lut.pdf?_ga=2.69927632.1369297514.1670526688-1354554675.1652381457.

⁹ Jochen Bard, The Limitations of Hydrogen Blending in the European Gas Grid: A study on the use, limitations and cost of hydrogen blending in the European gas grid at the transport and distribution level, Fraunhofer Institute for Energy Economics and Energy System Technology (January 2022). https://www.iee.fraunhofer.de/content/dam/iee/energiesystemtechnik/en/documents/Studies-Reports/FINAL_FraunhoferIEE_ShortStudy_H2_Blending_EU_ECF_Jan22.pdf

¹⁰ Arun SK Raju and Alfredo Martinez-Morales, Hydrogen Blending Impacts Study, University of California at Riverside, (July 2022). <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M493/K760/493760600.PDF>

Community engagement and consent are critical components of any process to build out clean energy, and any hydrogen buildout must prioritize early and robust local engagement with communities. We should not repeat the top-down model of decision making that has created environmental injustice, which unfortunately we are experiencing on the ground today with proposed hydrogen projects. Local needs and concerns such as the community selection for projects and the localized impacts of pipelines cannot be overlooked by companies working in this space.

Furthermore, California must ensure that the production of hydrogen does not replicate the extractive cycles of the fossil fuel industry by continuing to pollute Environmental Justice (EJ) communities. It is critical to acknowledge the disproportionate impacts of pollution and environmental harm on EJ communities, and any investment in the renewable hydrogen industry must ensure that these communities are not further burdened with pollution or negative health outcomes. California must prioritize equity and justice in its approach to the renewable hydrogen industry and ensure that it does not perpetuate environmental harm in already overburdened communities.

As the renewable hydrogen industry is in its infancy, California has an opportunity to ensure that the accelerating investment in hydrogen projects yields the climate benefits being sought in the near term, and thereby avoid needing to make major retrofits down the road or even abandon large capital investments that do not turn out to be climate solutions. Hydrogen must only be produced using renewable energy, and should only be applied for hard-to-decarbonize end uses while prioritizing the co-location of production and end use to minimize transportation.

Thank you for your consideration of these issues. We are happy to discuss these concerns further.

Sincerely,

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California Environmental Voters

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Comment Letter O8

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Senator Josh Becker
Senator Steven Bradford
Senator Lena Gonzalez
Senator Dave Min
Assembly Member Steve Bennett
Assembly Member Laura Friedman
Assembly Member Eduardo Garcia
Assembly Member Luz Rivas

2.3.2.8 Letter O8: Communities for a Better Environment

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

- O8-1 The County intends to continue engaging with frontline communities to ensure equitable implementation and correction of environmental injustices. An equity approach is outlined in Figure 1-3 which starts with frontline communities. (Revised Draft 2045 CAP, p. 1-16.) An equitable implementation process is further expanded upon in Chapter 4 of the Revised Draft 2045 CAP. (Revised Draft 2045 CAP, p. 4-2.) To address implementation of the Revised Draft 2045 CAP strategies, measures, and actions in an equitable manner, the County identified applicable guiding principles from the Los Angeles County Draft Racial Equity Strategic Plan to assist with the equitable distribution of benefits and resources across all segments of a community. (Revised Draft 2045 CAP, Appendix H, p. H-17.)
- O8-2 The County’s Office of Oil and Gas will continue to partner with the state on local oil well phase out. The Just Transition Task Force issued a report in December 2022 containing 19 specific strategies that create a pathway for workers in oil drilling to find new employment as the County and City of Los Angeles phase out oil extraction in Los Angeles.
- O8-3 An amortization study is underway to determine the fastest possible phase-out timeline for all existing oil wells and production facilities. This study will consider the legal, environmental, political, and cost considerations of the phase out. The performance objective does not dictate the amortization rate; however, the amortization study may influence future adjustments to the performance objectives, such as whether the performance objective should be accelerated, as suggested by the comment. As such, the performance objective has been modified to include a note to adjust the performance objective to reflect the results from the amortization study. The note reads, “**The performance objective provided here serves as a general metric and may be refined upon completion of the Oil Well Amortization Study.*” (Revised Draft 2045 CAP, p. 3-19.)
- O8-4 The Oil Well Ordinance outlines specific decommissioning steps and timeframes for those actions. A schedule for compliance will be required and allows for enforcement action to be taken should compliance not be met. The amortization study will further inform the phase out process.
- O8-5 All oil wells will need to be plugged, abandoned, and the site restored consistent with the California Geologic Energy Management Division requirements.

- O8-6 Carbon capture and sequestration are discussed in the Revised Draft 2045 CAP as a potential strategy to offset all remaining residual emissions that would exist in 2045 to meet the aspirational goal of carbon neutrality if the residual emissions cannot be eliminated through new regulations or technologies. SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, or storage, and CO₂ removal projects and technology. Results from SB 905 will inform any future County efforts, which could support the County's aspirations to achieve carbon neutrality. The Revised Draft 2045 CAP Action ES1.3 dictates the County would develop a carbon removal strategy, including direct air capture and carbon capture and sequestration. (Revised Draft 2045 CAP, p. 3-19.) Any future projects related to Action ES1.3 would be subject to CEQA review, including impact analysis and mitigation measures to reduce any significant impacts.
- O8-7 Regarding the comment's concern about the potential for costs associated with energy retrofits completed by landlords to be passed onto tenants, Chapter 1 of the Revised Draft 2045 CAP discusses the equity approach to confront the barriers that frontline communities encounter in terms of traditional public investment and support pathways toward equitable and transformative implementation of climate strategies. (Revised Draft 2045 CAP, p. 4-2.) The Revised Draft 2045 CAP discusses the challenges frontline communities face accessing incentives for energy retrofit initiatives and the County's priority to provide a grant program in place of the traditional rebate programs for frontline communities. (Revised Draft 2045 CAP, p. 1-19.) A grant program to fund energy retrofits will allow frontline communities to take advantage of the benefits from the beginning of the process. The grant program can also include services, labor, and supplies provided by the County. The goal is to support bringing the benefits of decarbonization to frontline communities without burdening vulnerable people with upfront costs. Further, the County is working to strengthen rent stabilization ordinances to limit the annual rent increases for covered units and address gaps in tenant protections for non-rent-stabilized units, enforcement of anti-harassment provisions, relocation assistance, and other emerging issues. Housing affordability remains in the forefront of the transition to a decarbonized built environment and as such the County will assess anti-displacement measures such as the rent stabilization ordinance where public funds are utilized for decarbonization retrofits.
- O8-8 Partnerships with community-based organizations have been effective in engaging many communities and the County will continue to pursue these partnerships to address community needs.
- O8-9 to O8-13 These comments on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O8-14 The County endeavors to transition all forms of public transportation to zero-emission technologies and will be working with LA Metro and other transportation providers to achieve this goal. Revised Draft 2045 CAP Action T4.10 includes collaborating with Metro to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission, as the commenter states.

LA Metro already has plans to electrify its entire bus fleet by 2030.²⁵ In addition, CARB's Innovative Clean Transit program requires that all public transit agencies must gradually transition to a 100 percent zero-emission bus fleet by 2040. By 2026, 50 percent of large and 25 percent of small transit agencies' new bus purchases must be zero-emission buses. By 2029, 100 percent of large and small transit agencies' new bus purchases must be zero-emission buses.²⁶ All of this will contribute to the zero-emission public transit future that the commenter strives for.

Regarding the use of alternative fuels such as green hydrogen, biomethane, and biogas, Measure T6.7 aims to increase the use of green hydrogen vehicles and use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100 percent green hydrogen and electric vehicles. This is an interim step to reduce GHG emissions as much as possible before the entire public transit fleet can fully electrify. Electrification is the Revised Draft 2045 CAP's ultimate goal, but the County acknowledges the technological, practical, and financial limitations of an immediate shift to all-electric heavy-duty vehicles.

Measure T7, Electrify County Fleet Vehicles, aims to electrify the County bus and shuttle vehicle fleets by 2035 and increase the fleetwide percentage of light-duty vehicles in the County-owned fleet that are ZEVs to 35 percent by 2030, 60 percent by 2035, and 100 percent by 2045. The County agrees with the commenter and has already started implementation of converting the County's fleet including bus and shuttles to electric vehicles.

Regarding the comment's claim that the use of low-emission, biomethane, and biogas technologies are not ambitious enough technologies to reach the Revised Draft 2045 CAP's target goals, as explained in Revised Draft 2045 CAP Chapter 3, the Revised Draft 2045 CAP's GHG emission reduction targets for 2030, 2035, and 2045 are indeed achieved through the quantified measures, including those in the transportation sector such as Measure T4 (Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation), T6 (Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales), and T7 (Electrify County Fleet Vehicles), contrary to the commenter's claims (Revised Draft 2045 CAP p. 3-4).

²⁵ LA Metro, 2023. Moving Beyond Sustainability. November 2022. <https://www.metro.net/about/plans/moving-beyond-sustainability/>. Accessed July 2023.

²⁶ California Air Resources Board, 2022. Innovative Clean Transit – About. <https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit/about>. Accessed July 2023.

The comment also claims that the use of low-emission, biomethane, and biogas technologies would exacerbate health impacts in environmental justice communities and delay the transition to an electric bus fleet, but provides no evidence to support this claim. Biomethane and biogas have a similar emissions profile to compressed natural gas (CNG), which has far fewer tailpipe emissions of criteria air pollutants and toxic air contaminants than gasoline and diesel fuel vehicles.^{27, 28} In addition, the potential air quality health risk impacts associated with projects facilitated by Revised Draft 2045 CAP measures and actions are comprehensively evaluated in the Recirculated Draft PEIR (see Recirculated Draft PEIR Chapter 3.4, *Air Quality*).

O8-15 Revised Draft 2045 CAP Action T9.2 would identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. The commenter is correct that all or most of this equipment is commercially available as electric equipment. The County appreciates the commenter’s reference to the Port of Long Beach, which has already been using such electric equipment. The County endeavors to follow a similar approach and prioritize electrification over the use of green hydrogen and other alternative fuels, reserving green hydrogen for sectors that cannot be electrified, following the commenter’s recommendation. The County will be developing an ordinance to require the use of electric equipment like those listed in Action T9.2 for all new discretionary projects seeking County approval.

O8-16 The County appreciates the commenter’s recommendation to prioritize electrification over alternative fuels and agrees that fueling sources such as including hydrogen, biomethane, biogas, and natural gas could delay electrification, and as such has prioritized electrification and included the use of such fuels only as a “bridge” to electrification (for example, see Revised Draft 2045 CAP Action T6.7 and response to comment O8-14 above). Actions T8.2 and T8.4 are intended to support the transition to zero-emission goods movement medium- and heavy-duty vehicles by encouraging such alternative fuels as bridge fuels.

The commenter also states that the use of such alternative fuels could potentially create health and environmental impacts for environmental justice communities but does not provide evidence to support this claim. As mentioned above in response to comment O8-15, biomethane and biogas have a similar emissions profile to CNG, which has far fewer tailpipe emissions of criteria air pollutants and toxic air contaminants than gasoline and diesel fuel vehicles. In addition, the potential air quality health risk impacts associated with future projects facilitated by Revised Draft

²⁷ U.S. Department of Energy, 2023. Natural Gas Vehicle Emissions. https://afdc.energy.gov/vehicles/natural_gas_emissions.html/. Accessed July 2023.

²⁸ California Air Resources Board, 2023. Alternative Fuels: Compressed Natural Gas (CNG). <https://ww2.arb.ca.gov/our-work/programs/alternative-fuels/alternative-fuels-compressed-natural-gas-cng>. Accessed July 2023.

2045 CAP measures and actions are comprehensively evaluated in the Recirculated Draft PEIR (see Recirculated Draft PEIR Chapter 3.4, *Air Quality*).

- O8-17 In implementing Actions T8.2 and T8.4, as for other similar actions in the Revised Draft 2045 CAP, the County will perform all required due diligence, feasibility studies, public outreach, and CEQA review as required by County policy and state law. The County will take all the commenter's concerns about quality assurance, safety, training, and health impacts considerations into account before developing any permit streamlining options or ordinances.
- O8-18 to O8-19 See Response O8-7 regarding the comment's concern about the potential for costs associated with energy retrofits completed by landlords to be passed onto tenants. Where landscaping is required as a part of a development project, native plants are required to be used. The forthcoming Urban Forest Management Plan identified in Measure A3 will focus on native plants as an opportunity to reduce GHG emissions along with reducing extreme heat conditions.
- O8-20 Responding to the comment's opposition to the use of hydrogen in residential buildings, the Revised Draft 2045 CAP does not include any measure or action supporting the use of hydrogen in residential buildings. As stated by the comment, electrification of homes and buildings is the County's preferred approach. The County will be developing building decarbonization ordinances pursuant to Revised Draft 2045 CAP Measure E1 (Decarbonize Existing Buildings) and E2 (Decarbonize New Development).

To clarify this goal of the Revised Draft 2045 CAP and the intent of Measure E1, the County has revised sections of the Revised Draft 2045 CAP as follows:

Transition Decarbonize Existing Buildings to All-Electric: *As the carbon intensity of grid-supplied energy decreases, decarbonization of the electrical grid must be combined with building ~~electrification~~ decarbonization, shifting the energy load from fossil ~~natural gas~~ fuels to cleaner carbon-free sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to ~~electrify~~ decarbonize applicable existing buildings. A primary alternative to fossil natural gas is renewable electricity supplied by CPA. Biomethane is another preferred alternative to fossil natural gas; however, existing opportunities for widespread use of biomethane are currently limited. The use of other zero-emission fuel sources for buildings ~~should~~ will also be considered (Revised Draft 2045 CAP, Chapter 3, p. 3-47)*

These revisions do not result in changes to environmental impact analyses or conclusions presented in the Recirculated Draft PEIR, and therefore do not constitute significant new information that would trigger recirculation under CEQA Guidelines section 15088.5.

In response to the comment’s claim that burning hydrogen in buildings would be “polluting,” hydrogen is a clean-burning fuel with no criteria pollutant or toxic air contaminant emissions associated with combustion.^{29, 30} The commenter does not provide support for the claim that burning hydrogen would cause air quality or health risk problems.

- O8-21 The County will consider the comment’s comprehensive fund recommendation should the County administer a program with County funding.
- O8-22 The County will consider the comment’s recommendation for technical and financial assistance to affordable housing entities should the County administer a program with County funding.
- O8-23 Measure A3 addresses the commenter’s concern. Measure A3 will focus tree planting on frontline communities with insufficient tree cover and green spaces, which would directly support such local communities, curb the urban heat island effect, and lead to energy efficiency. The Urban Forest Management Plan is currently under development and implements Action 3.1 to create and implement an equitable Urban Forest Management Plan that prioritizes: 1) tree- and parks-poor communities; 2) climate- and watershed-appropriate and drought/pest-resistant vegetation; 3) appropriate watering, maintenance, and disposal practices; 4) provision of shade; and 5) biodiversity. The Urban Forest Management Plan will help inform tree planting locations and prioritize tree- and parks-poor communities.
- O8-24 The identification of core measures was based upon quantification of measures that addressed the highest GHG emitting sectors. This resulted in measures that target transportation, stationary energy, and waste. The County agrees with the comment that conserving and restoring forests, chaparral shrublands, and wetlands would have beneficial environmental effects, but does not choose to promote Strategy 9 as a core strategy. However, Strategy 9 is an important strategy to ensure the County remains on a path toward the 2045 aspirational goal of carbon neutrality.
- O8-25 The County prioritizes native plants in new developments and will ensure the priority is carried into the Urban Forest Management Plan.
- O8-26 Regarding the comment’s opposition to the use of CEQA exemptions in the County’s Green Zones Ordinance, the Revised Draft 2045 CAP meets the requirements of CEQA Guidelines section 15183.5(b), thereby allowing future projects to streamline their GHG impacts evaluation pursuant to CEQA Guidelines sections 15064.4 and 15183.5(b). This does not wholesale exempt discretionary projects from performing their own CEQA analysis but rather incentivizes projects to implement climate actions that have been analyzed to contribute to the County’s GHG emission reductions,

²⁹ U.S. Department of Energy, 2022. Energy Efficiency and Renewable Energy, Alternative Fuels Data Center. Hydrogen Basics. <https://www.energy.gov/eere/fuelcells/hydrogen-fuel-basics>. Accessed July 2023.

³⁰ U.S. Environmental Protection Agency, 2023. A Glimpse into Hydrogen & Transportation. Last Updated February. <https://www.epa.gov/greenvehicles/glimpse-hydrogen-transportation>. Accessed July 2023.

thereby reducing the time and expense needed for individual environmental clearances for a project's GHG analysis. Please see General Response 3, which addresses the Revised Draft 2045 CAP processes applicable to various project applicants.

- O8-27 See General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist. See General Response 5, which addresses the obligation of the Revised Draft 2045 CAP to quantify GHG emission reductions for strategies, measures, and actions.

The County's Green Zone Program seeks to enhance public health and land use compatibility in communities that bear a disproportionate pollution burden. An environmental justice screening method tool was developed to identify stationary sources of pollution and analyze cumulative environmental impacts based on expert recommendations and information gathered from ground truthing activities. This tool is a foundation and resource to support analysis of cumulative effects from new uses that may include energy production and storage facilities and refineries.

- O8-28 The County acknowledges the recommended prioritization of specified actions and believes the Revised Draft 2045 CAP generally aligns with these recommendations.

ENDANGERED HABITATS LEAGUE
 DEDICATED TO ECOSYSTEM PROTECTION AND SUSTAINABLE LAND USE



April 11, 2023

Thuy Hua, Supervising Regional Planner
 Los Angeles County Department of Regional Planning
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 Los Angeles, CA 90012
climate@planning.lacounty.gov

RE: Revised Draft 2045 Climate Action Plan (CAP)

Dear Ms. Hua:

Endangered Habitats League (EHL) appreciates the opportunity to comment on selected portion of the Revised Draft 2045 CAP.

Transportation strategies (p. 3-26)

A major component is Strategy 3: Reduce Single-Occupancy Vehicle Trips. However, isn't total VMT a better metric for carbon emissions? While some measures would be the same for both options, single-occupancy trips does not address trip length, long commutes, and sprawling land use patterns. One the other hand, total VMT does so.

Reducing driving distances by reducing remote new development – in addition to increasing housing opportunities near transit – should be added as a measure. This is important as our local transit system is declining in use, and locating housing nearby will not overcome the many barriers. To help implement this measure, project GHG emissions from automotive sources should require full mitigation.

In view of the declining use of traditional bus and rail transit, T4.1 is particularly important, and should be stressed for early implementation.

T4.1—Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles.

Strategy 9: Conserve and Connect Wildlands and Working Lands

• Measure A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and Other Carbon-Sequestering Wildlands and Working Lands

O9-1

O9-2

O9-3

O9-4

We appreciate the revised draft’s greater targets for conservation of natural lands, which has many co-benefits to society. But unless these conserved lands are *newly* protected from development, they do not accomplish much beyond baseline. Suggest the following:

O9-4
(cont.)

New ~~a~~ Acres of wildland managed for wildfire risk reduction and carbon stock savings:

- 10,000 acres by 2030
- 20,000 acres by 2035
- 50,000 acres by 2045

We continue to recommend further reductions in conversion of natural lands, whose protection now facilitated by the County’s fire safety policies.

O9-5

Reduce the amount of natural land converted for urbanized uses:

- ~~25~~ 50% percent by 2030
- ~~50~~ 75% percent by 2035
- ~~75~~ 90% percent by 2045

MEASURE ES5: Establish GHG Requirements for New Development

O9-6

Using the 2045 Climate Action Plan for CEQA Streamlining

Consistency Review Checklist (Appendix F)

EHL has *not* technically reviewed the adequacy of the Consistency Review Checklist (Appendix F) for General Plan-consistent projects to reduce GHG emissions in accord with 2045 targets. We do, however, object to use of 110 ADT as a threshold for screening out projects, as it does not account for trip length. Although recommended by CARB, particularly in unincorporated areas, more remote development will have significant emissions even if technically under 110 ADT.

Due to the well-documented problems, we again *concur* with the Checklist provision that, “Carbon offset credits are not permitted to be used as alternative project emissions reduction measures.”

We also agree that an Offsite GHG Reduction Program (Offsite Program, ES5.4) that involves *local* emissions reductions would be appropriate if, as described in the Checklist, it meets various strict criteria (enforceability, additionality, etc.). However, there is a lack of clarity that a precondition for use of the Offsite Program is that *on-site* Checklist measures or *on-site* alternative/additional measures (Alternative Project Emissions Reduction Measures and Additional GHG Reductions) are *both* infeasible. The language in the draft – “in tandem” – is imprecise on these relationships (“This program

O9-7

would be used in tandem with the 2045 CAP Consistency Checklist for projects that propose GHG emissions reduction measures as alternatives to those identified in Table F-1 of the 2045 CAP Consistency Checklist, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1.”). Clarification of the sequencing involved would be helpful, so that Checklist and Alternative and Additional measures are exhausted prior to turning to the Offsite Program.

O9-7
(cont.)

There is also a proposed Carbon Offsets/Credits Feasibility Study, to prepare for the contingency of not meeting 2045 targets. While this is a reasonable precaution, remote carbon offsets are problematic for many reasons. There should be early identification of incipient target failure through monitoring. If called for, the *first steps* should be adjustment of, and additions to, the 2045 CAP measures.

O9-8

We have questions and concerns over how General Plan amendments (GPAs) relate to the Checklist and over ES5.3—*Evaluate a program for reducing GHG emissions for new developments that require General Plan amendments*. Theoretically, GPA proposals could be beneficial for GHG emissions, or, like leapfrog sprawl development, could be very harmful. But in order to enact the best *overall* planning, the General Plan should be amended *comprehensively*, as part of a County-wide or Community Plan update process. *Piecemeal GPAs should be discouraged*.

O9-9

The CEQA streamlining offered by Checklist compliance should remain as an incentive to build out the existing General Plan. While there is always a right to propose a GPA, the applicant cannot not rely on Checklist compliance for its GHG analysis. According to Appendix F, GPAs are by definition outside the scope of the Checklist:

The growth projections outlined in the General Plan’s Land Use Element were used in the 2045 CAP to estimate unincorporated Los Angeles County’s future emissions. Therefore, projects can use the 2045 CAP Checklist if they are consistent with the Land Use Element.

Proposed GPAs must undertake *de novo* GHG impact analyses in Environmental Impact Reports.

O9-10

There is, however, ambiguity in the document as to the use of the Checklist. Besides for General Plan-consistent projects, there is a second use, that is, “for projects required or electing to prepare project-specific CEQA GHG analyses, to demonstrate that all feasible applicable checklist measures or alternative project emissions reduction measures have nevertheless been implemented, either as project features or as GHG mitigation measures.” Does this second use of the Checklist apply *solely* to General Plan-consistent projects which, for one reason or another, are doing project-specific CEQA review, or is it *also* for use by GPAs in project-specific CEQA GHG analyses? If the latter, what is the purpose of ES5.3?

Thank you for your commitment to climate action and for considering our comments.

Yours truly,



Dan Silver
Executive Director

O9-10
(cont.)

June 30, 2023

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
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RE: Revised Draft 2045 Climate Action Plan (CAP) - Corrected

Dear Ms. Hua:

Endangered Habitats League (EHL) appreciates the opportunity to comment on selected portion of the Revised Draft 2045 CAP. *In the record for this project, please replace our original comment letter of April 11, 2023 with this corrected version.*

Transportation strategies (p. 3-26)

A major component is Strategy 3: Reduce Single-Occupancy Vehicle Trips. However, isn't total VMT a better metric for carbon emissions? While some measures would be the same for both options, single-occupancy trips does not address trip length, long commutes, and sprawling land use patterns. One the other hand, total VMT does so.

Reducing driving distances by reducing remote new development – in addition to increasing housing opportunities near transit – should be added as a measure. This is important as our local transit system is declining in use, and locating housing nearby will not overcome the many barriers. To help implement this measure, project GHG emissions from automotive sources should require full mitigation.

In view of the declining use of traditional bus and rail transit, T4.1 is particularly important, and should be stressed for early implementation.

T4.1—Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles.

Strategy 9: Conserve and Connect Wildlands and Working Lands

• Measure A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and Other Carbon-Sequestering Wildlands and Working Lands

O9-11

We appreciate the revised draft’s greater targets for conservation of natural lands, which has many co-benefits to society. But unless these conserved lands are *newly* protected from development, they do not accomplish much beyond baseline. Suggest the following:

New Acres of wildland managed for wildfire risk reduction and carbon stock savings:

- 10,000 acres by 2030
- 20,000 acres by 2035
- 50,000 acres by 2045

We continue to recommend further reductions in conversion of natural lands, whose protection now facilitated by the County’s fire safety policies.

Reduce the amount of natural land converted for urbanized uses:

- ~~25~~ 50% percent by 2030
- ~~50~~ 75% percent by 2035
- ~~75~~ 90% percent by 2045

O9-11
(cont.)

MEASURE ES5: Establish GHG Requirements for New Development

Using the 2045 Climate Action Plan for CEQA Streamlining

Consistency Review Checklist (Appendix F)

EHL has *not* technically reviewed the adequacy of the Consistency Review Checklist (Appendix F) for General Plan-consistent projects to reduce GHG emissions in accord with 2045 targets. We do, however, object to use of 110 ADT as a threshold for screening out projects, as it does not account for trip length. Although recommended by CARB, particularly in unincorporated areas, more remote development will have significant emissions even if technically under 110 ADT.

Due to the well-documented problems, we again *concur* with the Checklist provision that, “Carbon offset credits are not permitted to be used as alternative project emissions reduction measures.”

We also agree that an Offsite GHG Reduction Program (Offsite Program, ES5.4) that involves *local* emissions reductions would be appropriate if, as described in the Checklist, it meets various strict criteria (enforceability, additionality, etc.). However, there is a lack of clarity that a precondition for use of the Offsite Program is that *on-site* Checklist measures or *on-site* alternative/additional measures (Alternative Project Emissions Reduction Measures and Additional GHG Reductions) are *both* infeasible. The language in the draft – “in tandem” – is imprecise on these relationships (“This program would be used in tandem with the 2045 CAP Consistency Checklist for projects that propose GHG emissions reduction measures as alternatives to those identified in Table F-1 of the 2045 CAP Consistency Checklist, or that

propose to include additional GHG emissions reduction measures beyond those described in Table F-1.”). Clarification of the sequencing involved would be helpful, so that Checklist and Alternative and Additional measures are exhausted prior to turning to the Offsite Program.

There is also a proposed Carbon Offsets/Credits Feasibility Study, to prepare for the contingency of not meeting 2045 targets. While this is a reasonable precaution, remote carbon offsets are problematic for many reasons. There should be early identification of incipient target failure through monitoring. If called for, the *first steps* should be adjustment of, and additions to, the 2045 CAP measures.

We have questions and concerns over how General Plan amendments (GPAs) relate to the Checklist and over ES5.3—*Evaluate a program for reducing GHG emissions for new developments that require General Plan amendments*. Theoretically, GPA proposals could be beneficial for GHG emissions, or, like leapfrog sprawl development, could be very harmful. But in order to enact the best *overall* planning, the General Plan should be amended *comprehensively*, as part of a County-wide or Community Plan update process. *Piecemeal GPAs should be discouraged*.

The CEQA streamlining offered by Checklist compliance should remain as an incentive to build out the existing General Plan. While there is always a right to propose a GPA, the applicant cannot not rely on Checklist compliance for its GHG analysis. According to Appendix F, GPAs are by definition outside the scope of the Checklist:

O9-11
(cont.)

The growth projections outlined in the General Plan’s Land Use Element were used in the 2045 CAP to estimate unincorporated Los Angeles County’s future emissions. Therefore, projects can use the 2045 CAP Checklist if they are consistent with the Land Use Element.

Proposed GPAs must undertake *de novo* GHG impact analyses in Environmental Impact Reports.

There is, however, ambiguity in the document as to the use of the Checklist. Besides for General Plan-consistent projects, there is a second use, that is, “for projects required or electing to prepare project-specific CEQA GHG analyses, to demonstrate that all feasible applicable checklist measures or alternative project emissions reduction measures have nevertheless been implemented, either as project features or as GHG mitigation measures.” Does this second use of the Checklist apply *solely* to General Plan-consistent projects which, for one reason or another, are doing project-specific CEQA review, or is it *also* for use by GPAs in project-specific CEQA GHG analyses? If the latter, what is the purpose of ES5.3?

In regard to the above, please note that as a signatory to the “Tejon Ranch Conservation and Land Use Agreement,” EHL does not oppose development of Tejon Ranch’s Centennial Community project in Los Angeles County or its approvals. Additionally, in light of its site-specific measures, EHL is not advocating that the Climate Action Plan requires any changes to the Centennial project as currently approved by the relevant agencies.

Thank you for your commitment to climate action and for considering our comments.

Yours truly,



Dan Silver
Executive Director

O9-11
(cont.)

2.3.2.9 Letter O9: Endangered Habitats League

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

O9-1 through O9-5 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O9-6 Regarding the comment’s opposition to utilizing the transportation screening threshold of 110 average daily trips (ADT), as listed in the Checklist because the criteria does not address trip lengths (Revised Draft 2045 CAP, Appendix F, p. F-9 and F-19), the 110 ADT threshold is from the Governor’s Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA.³¹ According to OPR, “projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.”

CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subI(e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

The basis for OPR’s VMT thresholds, including the 110 ADT threshold, is compliance with California’s GHG emission reduction targets. These include SB 32, which requires California to reduce GHG emissions 40 percent below 1990 levels by 2030, and Executive Order B- 16-12, which provides a target of 80 percent below 1990 emissions levels for the transportation sector by 2050. OPR’s Technical Advisory states, “OPR recommends using quantitative VMT thresholds linked to

³¹ Governor’s Office of Planning and Research, 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018. https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed July 2023.

GHG reduction targets when methods exist to do so.”³² Consequently, the 110 ADT criteria is a valid screening criteria for GHG emissions and potential GHG impacts.

The County appreciates the comment’s support of the exclusion of carbon offset credits for use in the Checklist; please see General Response 4, which addresses the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist.

- O9-7 Regarding the comment’s concern of a lack of clarity in the Checklist surrounding the use of alternative GHG reduction measures and the offsite GHG reduction program, please refer to General Response 3, which addresses the alternative GHG reduction measure pathway in the Checklist, and General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program. To clarify the County’s preference for on-site versus off-site GHG emission reductions for streamlining purposes via the Checklist, the County has revised sections of the Revised Draft 2045 CAP in the following ways, as shown in the example below:

Action ES5.4 of the 2045 CAP would establish an Offsite GHG Emissions Reduction Program (Offsite Program) for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would allow new development to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions. An Offsite GHG Emissions Reduction Program (Offsite Program) will be developed. Future projects that cannot achieve net-zero GHG emissions or are unable to comply with all required 2045 CAP Checklist items CEQA streamlining requirements would have the option to participate in the Offsite Program. The Offsite GHG Reduction Program could be used for projects that propose alternative GHG emissions reduction measures to those identified in Table F-1, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1 (Revised Draft 2045 CAP, Appendix F, p. F-34).

These revisions do not result in changes to environmental impact analyses or conclusions presented in the Recirculated Draft PEIR, and therefore do not constitute significant new information that would trigger recirculation under CEQA Guidelines section 15088.5.

- O9-8 The comment raises concerns regarding the use of “remote carbon offsets” for meeting the County’s 2045 GHG reduction target; the County agrees that actual GHG reductions occurring within the unincorporated County are the highest priority in determining progress toward its GHG reduction targets, and that the Revised Draft 2045 CAP monitoring program should identify any course corrections that may be needed for the County to remain on track for meeting those targets, as described in

³² Ibid.

Section 4.2 of the Revised Draft 2045 CAP. As stated on page 4-5 of the Revised Draft 2045 CAP, the County will be reporting on the implementation progress of the Revised Draft 2045 CAP as part of the General Plan Annual Progress Report, and within the first two years of implementation will identify where further efforts and additional resources may be needed to stay on track toward targets. Further, the Revised Draft 2045 CAP is a dynamic document that will be monitored and evaluated for its effectiveness on an ongoing basis to allow the County to make timely adjustments to implementing actions as technologies, federal and state programs, and circumstances change. Flexibility in implementation is necessary to allow the County to evolve its strategies and achieve its targets, including for 2045. The County will update the GHG emissions inventory and the Revised Draft 2045 CAP every five years.

The Revised Draft 2045 CAP's current measures and actions are sufficient; based on current assumptions, performance objectives, and modeling tools; for achieving the County's 2045 GHG emission reduction *target* of 83 percent below 2015 levels (Revised Draft 2045 CAP pp. 3-2 and 3-3). The Revised Draft 2045 CAP also includes an *aspirational goal* of achieving carbon neutrality by 2045; it is important to note that this is not a *target* of the Revised Draft 2045 CAP as stated in the comment. However, achieving carbon neutrality is an entirely different challenge, and the Revised Draft 2045 CAP does not show a quantitative pathway to carbon neutrality. Section 3.2 of the Revised Draft 2045 CAP discusses what is needed to achieve carbon neutrality and acknowledges the need for new and evolving technologies:

If the residual emissions, shown in Figure 3-1, cannot be eliminated through new regulations or technologies, the County will consider future implementation of carbon removal strategies (such as carbon capture and sequestration and direct air capture), along with future implementation of a carbon offsets/credits program, following completion of a feasibility study, to achieve carbon neutrality by 2045. Evolving state regulations, programs, and financial incentives will provide new opportunities for unincorporated Los Angeles County to counteract any residual emissions. (Revised Draft 2045 CAP p. 3-12).

As stated in the comment, the Revised Draft 2045 CAP includes a carbon offsets/credits feasibility study. The purpose of using carbon offsets would be to enable the County to achieve its long-term aspirational goal of carbon neutrality by 2045 (Revised Draft 2045 CAP p. 4-12). This would be a "last resort" if in-County measures, actions, and projects are not sufficient to achieve carbon neutrality. It is worth noting that in the 2022 Scoping Plan, the state's roadmap for achieving carbon neutrality statewide by 2045 pursuant to AB 1279, there are over 100 million metric tons of CO₂ equivalent emissions after full implementation of the scoping plan scenario in 2045. This means that carbon removal is an essential component of the State's strategy:

Even if anthropogenic emissions are reduced to at least 85 percent below 1990 levels by 2045 as called for by AB 1279, there will still be residual emissions in the AB 32 GHG Inventory sectors in 2045 that must be addressed in order to achieve the California’s carbon neutrality target... To achieve carbon neutrality, mechanical CDR [carbon dioxide removal] will therefore need to be deployed. Because NWL [natural and working lands] management is not estimated to be a significant carbon removal path in the near term, additional CDR options will be needed.³³

The comment also states that “remote carbon offsets are problematic for many reasons” but does not provide such reasons or evidence supporting this claim such that a specific response cannot be provided. This comment does not raise significant environmental issues relating to the Recirculated Draft PEIR warranting a response pursuant to CEQA Guidelines section 15088(a).

- O9-9 As discussed in General Response 4, all future projects that would require a General Plan Amendment cannot use the Revised Draft 2045 CAP to streamline its GHG impact analysis under CEQA. Such projects would have to undergo their own project-level CEQA analyses of GHG impacts. The Revised Draft 2045 CAP has been revised to remove Measure ES5.3 (Evaluate a program for reducing GHG emissions for new developments that require General Plan Amendments). (Revised Draft 2045 CAP, p. 3-25.) All new development projects requiring a General Plan Amendment must prepare their own GHG impact analysis under CEQA. Project-specific amendments must be consistent with the General Plan’s overall intent, goals and policies. These revisions do not result in changes to environmental impact analyses or conclusions presented in the Recirculated Draft PEIR, and therefore do not constitute significant new information that would trigger recirculation under CEQA Guidelines section 15088.5.

See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. Also see General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects.

- O9-10 As discussed in General Response 4, all future projects that would require a General Plan Amendment cannot use the Revised Draft 2045 CAP to streamline its GHG impact analysis under CEQA. Such projects would have to undergo their own project-level CEQA analyses of GHG impacts. As discussed in response to comment O9-9, the Revised Draft 2045 CAP has been revised to remove Measure ES5.3 (Evaluate a program for reducing GHG emissions for new developments that require General Plan Amendments). Regarding the comment’s concern regarding the use of the Checklist, as discussed in General Response 3, the County has revised the Checklist to clarify that the Checklist will be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3),

³³ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Pages 91-92. Available at <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed August 2023.

15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis.

See General Response 3, which provides further information regarding how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.

- O9-11 The County acknowledges the comment's statement that EHL does not oppose the Tejon Ranch Centennial Community project, and that the Revised Draft 2045 CAP need not be revised to require changes to that project. This comment does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).



May 15, 2023

Thuy Hua, Supervising Regional Planner
 Los Angeles County Department of Regional Planning
 320 West Temple Street, 13th Floor
 Los Angeles, CA 90012
 Email: climate@planning.lacounty.gov

Re: Comments on the Revised Draft 2045 Climate Action Plan

Dear Ms. Hua:

The Newhall Land and Farming Company thanks you for the opportunity to provide comments on the Revised Draft Los Angeles County 2045 Climate Action Plan (“CAP”). As the proponent of California’s first large-scale net-zero greenhouse gas (“GHG”) mixed-use community, we appreciate the County’s efforts to reduce GHG emissions while encouraging critical housing.

Innovative Net-Zero GHG Housing Project – In coordination with the County and State in 2017, Newhall developed a net-zero GHG program that implements a broad suite of innovative GHG reduction strategies to maximize onsite and local GHG reductions, such as installing thousands of EV charging stations throughout LA County and implementing a Building Retrofit Program in disadvantaged communities within the County.

- The California Air Resources Board evaluated Newhall’s net-zero GHG program and determined that it “will not result in any net additional greenhouse gas emissions.”¹
- The California Department of Fish and Wildlife similarly concluded that “the Project represents an *innovative* demonstration of a mixed-use development project *providing needed housing* and commercial development in a manner consistent with California’s GHG reduction goals... the Project will be one of the largest, if not the *largest developments in California ever to achieve net zero GHG emissions*.”²

When the County Board of Supervisors reapproved Mission Village and Landmark Village, the Board found that Newhall’s net-zero GHG program would feasibly achieve net-zero GHG emissions based on substantial evidence in the record:

- “The Board further finds that, based on substantial evidence in the record, potentially significant GHG impacts of the Mission Village Project are reduced to

O10-1

¹ California Air Resources Board, Letter from Richard Corey, Executive Officer, to Chuck Bonham, Director, California Department of Fish and Wildlife, June 7, 2017.

² California Department of Fish and Wildlife, Final Actions and Supplemental Findings for Newhall Ranch RMDP/SCP, p. 40, June 14, 2017 (emphasis added).

less-than-significant levels with implementation of the following measures and that the Project will *feasibly and reliably achieve net zero GHG emissions.*³

- “In addition, because the Project would result in *no net increase of GHG emissions*, it would not conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.”⁴

The Board concluded: “The Project represents *an innovative* demonstration of a mixed-use development *Project providing needed housing* and commercial development in a *manner consistent with California’s GHG reduction goals.*”⁵

Following the County’s approval, Newhall utilized this program to settle with groups that had long opposed the project. The LA Times called this settlement a “historic truce.”⁶ The approvals and settlement facilitated the start of construction after multiple decades of litigation and delays, although two local groups continued to challenge the County’s approvals and attempt to block these projects that will deliver badly needed housing to the region. Now, homeowners are moving into Mission Village, adding to the County’s diversity of housing stock.

Newhall Satisfies CEQA GHG Compliance Pathway – The 2022 Scoping Plan expressly identifies multiple compliance pathways for evaluating a project’s GHG impacts under the California Environmental Quality Act (“CEQA”), including for projects demonstrated to achieve “net-zero GHG emissions.”⁷ Indeed, the 2022 Scoping Plan specifically recognizes Newhall as an example net-zero GHG project that satisfies this CEQA compliance pathway.⁸

The Draft CAP incorporates California GHG reduction goals as its own: “Consistency with the 2022 Scoping Plan, SB 32, and AB 1279 is an appropriate metric by which to determine the significance of the 2045 CAP’s GHG emissions through 2045...”⁹ Newhall already exceeds the Draft CAP’s 2030 and 2035 reduction targets and satisfies the Draft CAP’s aspirational target of carbon neutrality by 2045, twenty years early. Therefore, Newhall satisfies the Draft CAP’s GHG reduction goals and the Scoping Plan’s CEQA compliance pathway.

CARB-Approved Program Must Be Grandfathered Under the CAP to Avoid Impairing Innovative and Sustainable Housing and Jobs – As recognized by the Board, Newhall is an “an innovative...Project providing needed housing...consistent with California’s GHG reduction goals.” Newhall’s net-zero GHG program is unique because it was previously approved by CARB *and* withstood extensive litigation challenges up to the California Supreme Court. Homes and commercial uses developed under Newhall’s net-zero GHG program will disproportionately help the County achieve its climate goals with development that satisfies the CAP’s aspirational target of carbon neutrality 20 years early. To avoid unintended consequences for this endeavor that aligns with the Scoping Plan’s CEQA compliance strategy, it is imperative

O10-1
(cont.)

O10-2

O10-3

³ Los Angeles County, Mission Village, Supplemental CEQA Findings and Statement of Overriding Considerations, July 2017, p. 15.

⁴ *Id.*, p. 26 (emphasis added).

⁵ *Id.*, p. 39 (emphasis added).

⁶ Los Angeles Times, Newhall Ranch, September 25, 2017, available at <http://www.latimes.com/local/lanow/la-me-newhall-ranch-20170925-story.html>.

⁷ 2022 Scoping Plan Update, Appendix D (Local Actions).

⁸ 2022 Scoping Plan Update, Appendix D (Local Actions), Section 3.2.2.

⁹ Revised Draft CAP, p. 1-4.

that all development covered by Newhall's net-zero GHG program be grandfathered from the CAP's compliance requirements.¹⁰ As such, we respectfully request that the County expressly grandfather development covered by net-zero GHG programs that were approved by CARB before the adoption of the CAP from the CAP's compliance elements (e.g., checklist in Draft CAP, Appendix F). Of course, we remain fully supportive of the County's overall climate goals and will continue to deliver climate neutral housing and jobs to advance such policies.

O10-3
(cont.)

We look forward to continuing to work with the County on these important sustainability initiatives.

Sincerely,



Matt Carpenter
Vice President, Environmental Resources
On behalf of The Newhall Land and Farming Company

¹⁰ FivePoint has committed to implement the CARB-approved net-zero GHG program across all nine of its villages in Valencia, including the five Newhall Ranch Specific Plan villages (Mission Village, Landmark Village, Homestead North, Homestead South and Potrero Valley) and Entrada South, Entrada North, Valencia Commerce Center, and Legacy Village.

2.3.2.10 Letter O10: FivePoint Newhall Land and Farming Company

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

O10-1 to O10-3 The County acknowledges FivePoint’s comment that the recently approved Newhall Ranch mixed-use project achieved CEQA compliance by demonstrating how the project would achieve net zero GHG emissions through a mix of local GHG reductions, the purchase of GHG offsets, and consistency with CARB’s 2022 Scoping Plan, SB 32 and AB 1279. Responding to the comment’s request that that all development covered by Newhall’s net-zero programs be exempt from the Revised Draft 2045 CAP’s requirements including its CEQA Streamlining Checklist, Newhall is a project that has already undergone CEQA review and thus, does not need to demonstrate consistency with the Revised Draft 2045 CAP through use of the Checklist or any other means. Further, future development projects, including future approvals of previously planned projects, are still permitted to undergo their own project-level CEQA analysis of GHG impacts independent of the Checklist; such projects may use voluntary GHG offset credits to mitigate GHG impacts if warranted. For a more detailed response concerning the use of the Checklist, please see *General Response 3: 2045 CAP CEQA Streamlining Checklist*. For a discussion regarding the technical basis for why the Checklist does not permit the use of voluntary GHG offset credits to demonstrate a less-than-significant GHG impact under CEQA, see *General Response 4: GHG Offsets*, which addresses the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist.

2.3.2.11 Letter O11:

This letter is intentionally omitted.



Ms. Thuy Hua, Supervising Regional Planner
 Los Angeles County Department of Regional Planning
 320 West Temple Street, 13th Floor
 Los Angeles, CA 90012

Sent via email to climate@planning.lacounty.gov

Dear Ms. Hua,

Comments on Revised Draft 2045 Climate Action Plan dated March 2023

| | |
|--|----------------|
| <p>The League of Women Voters (LWV) of Los Angeles County strongly supports Los Angeles County’s Climate Action Plan (CAP) and encourages the County to adopt the plan and implement it. <i>It is imperative that the County implement measures to reduce greenhouse gas (GHG) emissions as quickly as possible.</i> The CAP outlines numerous measures to move electricity generation from fossil fuels to renewables, to electrify buildings and transportation, to encourage use of mass transit, to reduce energy use, and to reduce generation of GHG in the development of building materials and the decomposition of organic waste. The CAP is thorough and broad-ranging in its coverage.</p> | O12-1 |
| <p>The League’s policies and values on Climate Change, Land Use, Housing and Homelessness, Transportation, and Meeting Basic Needs are in excellent alignment with those of the County. However, we differ in urgency to act, particularly regarding land use and transportation.</p> | O12-2 |
| <p>Transportation remains the largest emissions category in our county and postponing work to reduce car dependence will run through our carbon budget faster. The low supply of available electric vehicles (EV), their cost, and slow adoption by drivers who must travel the farthest to their jobs mean that a key leg of the CAP’s decarbonization strategy will not meet the schedule.</p> | O12-3 |
| <p>Our County does not control the supply of EVs, but we do control the number of lane miles of bike lanes on major roads. Priority bus lanes and bike lanes are statutorily exempt from CEQA so there is no need for delay to complete lengthy and expensive studies. Our county’s money and staff time are better spent working on implementation.</p> | O12-4 O12-5 |
| <p>The League “recognizes land as a resource as well as a commodity”. For instance, the League opposes locking land near multi-billion dollar transit investments, major job centers, and colleges and universities with zoning for low-density uses.</p> | O12-6 |
| <p>There is no need to wait for a future rail line or EV, when people can simply walk or bike to work or school today if zoning and safe streets allow it. People who live walking or cycling distance to work or school do not suffer the stress of delayed or canceled buses and trains.</p> | O12-7 |

The League of Women Voters of Los Angeles County, a nonpartisan political organization, encourages informed and active participation in government, works to increase understanding of major public policy issues, and influences public policy through education and advocacy.



| | |
|--|--------|
| <p>Implementation of many CAP actions is dependent upon development and adoption of many detailed plans, policies, regulations and ordinances. The work is divided among many agencies and departments with full-time day-to-day responsibilities. The League is concerned that implementation be accomplished urgently and that it not slip into a bureaucratic quagmire. Appendix E lays out the details of implementation and monitoring and gives time frames. The early time frames extend out to 2030 and the later ones to 2045. There are no very near timeframes set out in the CAP for development and adoption of the plans, policies, regulations and ordinances. If these directives are not put in place promptly, the League is concerned that the implementation of the actual actions will lag. This must not happen.</p> | O12-8 |
| <p>Further, the League understands that measures in the CAP are restricted by other elements of the County’s General Plan. The League recommends that future updates of General Plan elements be integrated with CAP needs.</p> | O12-9 |
| <p>For instance densifying high quality transit areas (HQTAs) is expected to lower GHG emissions and improve equity because residents can take transit to access jobs and services instead of driving. However, transit is <u>only one</u> low-carbon mobility option. Walking is the cheapest and lowest emitting option.</p> | O12-10 |
| <p>Unincorporated LA County land across the street from 8,000 jobs at or adjacent to Los Angeles Air Force Base is zoned for R-1. Similarly, students in community colleges are sleeping in their cars and county land across the street from El Camino College (22,000 students) is zoned R-1.</p> | O12-11 |
| <p>The League urges the Board of Supervisors and the management of the Los Angeles County government to prioritize climate action and to set, budget and monitor firm expectations for each upcoming year.</p> | O12-12 |
| <p>The League urges the County to be fully transparent with the public about successes and difficulties with carrying out the CAP. We appreciate the transparency of the Measure W: Safe Clean Water Program Portal. We hope to see something similar for the CAP with links to the General Plan, Public Works, Transportation and other departments as appropriate.</p> | O12-13 |

Sincerely,

Margo Reeg,

President
 Los Angeles County League of Women Voters
margolwv@gmail.com

The League of Women Voters of Los Angeles County, a nonpartisan political organization, encourages informed and active participation in government, works to increase understanding of major public policy issues, and influences public policy through education and advocacy.

2.3.2.12 Letter O12: League of Women Voters

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

O12-1 The County acknowledges the support to adopt and implement the Revised Draft 2045 CAP.

O12-2 to O12-4 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O12-5 Regarding the comment's statement regarding priority bus and bike lane exemptions under CEQA, the Recirculated Draft PEIR is a programmatic level document and is intended to inform agency decision-makers and the public about environmental impacts of the Project at a program level. The document does not recommend approval or denial of specific projects under the Program. However, the Revised Draft 2045 CAP does include Strategies, Measures, and Actions aimed at reducing single-occupancy vehicle use including Measure T3, Measure T4, and Measure T5, which could be implemented on a project-level.

O12-6 to O12-8 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

O12-9 Regarding the comment's request that future updates of General Plan elements be integrated with Revised Draft 2045 CAP needs, the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan. General Plans, including updates to General Plans, are required to be internally consistent such that all elements and parts comprise an integrated, internally consistent and compatible statement of policies for the County.

O12-10 to O12-11 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses comments received on the Revised Draft 2045 CAP.

- O12-12 The County prioritizes climate action and is committed to adapting its programs and services to reduce Countywide GHG emissions. In response to the comment's recommendation to budget and monitor expectations, Chapter 4 of the Revised Draft 2045 CAP discusses the monitoring and reporting the County will implement. In addition to annual reporting through the General Plan Annual Progress Report, the County intends to develop a dashboard as a part of the reporting to provide information through data and spatial displays. Adopting the Revised Draft 2045 CAP positions the County to pursue climate related grants and to start budgeting for the identified actions.
- O12-13 The County intends to be transparent with the public about implementation of the Revised Draft 2045 CAP. Chapter 4 of the Revised Draft 2045 CAP discusses the monitoring and reporting the County will implement. In addition to annual reporting through the General Plan Annual Progress Report, the County intends to develop a dashboard as a part of the reporting to provide information through data and spatial displays.

Comment Letter O13

From: SCOPE
To: Iris Chi
Subject: Re: Revised Draft 2045 Climate Action Plan
Date: Monday, May 15, 2023 3:36:07 PM
Attachments: image.png

CAUTION: External Email. Proceed Responsibly.

Due to many events these last two months we have not had time to focus on the revised and re-circulated CAP EIR. We request an additional two weeks to review these documents.

O13-1

Some of our members did watch the posted link to your presentation. Our biggest concern is that you are using the 2015 year as a baseline. This seems inappropriate when the situation demands a return to 1990 levels as requested by the IPCC and other government agencies. It is as though you are only going back to 2015 so that your figures will look good instead of really trying to comply with the changes that need to be made. We believe that this baseline will not comply with State and County climate goals. Changing the baseline to make it look as though the County is making headway will not address the underlying problem of the urgent need to reduce CO2 and Methane releases through reducing or eliminating their sources.

O13-2

O13-3

O13-4

O13-5

Lynne Plambeck

Santa CLarita Orgnization for Planning and the Environment.

scope.org

-----Original Message-----

From: Iris Chi <IChi@planning.lacounty.gov>
Sent: Apr 17, 2023 12:06 PM
To: SCOPE <exec-scope@earthlink.net>
Subject: Revised Draft 2045 Climate Action Plan

Good morning,

Thank you for your prior participation in the update to the County's climate action plan. We released the Revised Draft 2045 Climate Action Plan and Recirculated Draft Environmental Impact Report for public review. Comments on both documents are requested by 5:00 pm on May 15th. Both documents can be accessed on the project website: <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>

We will be convening an online meeting to discuss and answer questions from the environmental community on April 20, 2023 at 3:00 pm. A meeting invite will be

sent out shortly with the link to the Zoom meeting.

If you are unable to join this meeting, we invite you to sign up for an appointment to ask us your questions during lunchtime hours. [Click here to sign up for an appointment.](#)

Thank you,

Iris

IRIS CHI, AICP (she/her/hers)

PLANNER, Environmental Planning and Sustainability

Office: (213) 974-6461 • Direct: (213) 974-6460

Email: ichi@planning.lacounty.gov

Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor, Los Angeles, CA 90012
planning.lacounty.gov



Our [field offices](#) are currently open to the public. Please visit planning.lacounty.gov for information about available services, public meeting schedules, and planning projects.

2.3.2.13 Letter O13: Santa Clarita Organization for Planning and the Environment

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

- O13-1 Regarding the comment’s request for an additional two weeks of public review, CEQA presumes the adequacy of a 45-day review period for a Draft PEIR (Pub. Resources Code, § 21091(a); CEQA Guidelines, § 15105) and explains that the public review period should not be longer than 60 days except in “unusual circumstances.” There are no extenuating circumstances here and as such, the standard 45-day review period is sufficient. Additionally, during those 45 days, the County hosted seven open meeting hours advertised as lunchtime office hours, posted on the project website and distributed via email an informational video on the Project, and held meetings with responsive stakeholder groups to facilitate review and discussion. In order to provide stakeholders additional time to review and understand the Revised Draft 2045 CAP and Recirculated Draft PEIR, and since changes to the Recirculated Draft PEIR were predicated on changes to the Revised Draft 2045 CAP, the Revised Draft 2045 CAP was released prior to the Recirculated Draft PEIR to offer additional review time to read the changes driving the analysis in the Recirculated Draft PEIR. For these reasons, the County believes that the 60-day public review period provided for the Revised Draft 2045 CAP and the 45-day public review period provided for the Recirculated Draft PEIR were sufficient to allow informed public comment.
- O13-2 In response to the comment regarding the appropriate baseline for climate action planning, the 2015 baseline is appropriate when considering the reduction goals of 40 percent below 2015 levels by 2030, 50 percent below 2015 levels by 2035, and 83 percent below 2015 levels by 2045. These targets are consistent with the state goals of 40 percent below 1990 levels by 2030, and 85 percent below 1990 levels by 2045. As stated in Chapter 2 of the Revised Draft 2045 CAP, total unincorporated Los Angeles County emissions in 1990 are estimated to be 6.4 million MTCO_{2e}. Because the 2015 emissions of 5.5 million MTCO_{2e} are 15 percent lower than the 1990 emissions, the 2030 target of a 40 percent reduction below 2015 levels is equivalent to a 48 percent reduction below 1990 levels. This exceeds the state target of 40 percent below 1990 levels by 2030. As such, the Revised Draft 2045 CAP’s 2030 target is in line with (and more stringent than) the SB 32 target for the state. The 2045 target of 83 percent below 2015 levels (equivalent to 85 percent below 1990 levels) aligns with the State of California’s 2045 target as codified in AB 1279 and evaluated in the Final 2022 Scoping Plan. In addition, the 2035 target of 50 percent below 2015 levels (equivalent to 57 percent below 1990 levels) puts unincorporated Los Angeles County

on the trajectory to achieve 85 percent below 1990 levels by 2045, consistent with state targets. Therefore, the Revised Draft 2045 CAP not only aligns with the State's GHG reduction targets, but it also exceeds them.

- O13-3 Please refer to the response to comment O13-2, above.
- O13-4 Please refer to the response to comment O13-2, above.
- O13-5 Please refer to the response to comment O13-2, above.



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Mitchell M. Tsai
Attorney At Law

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

VIA E-MAIL

May 12, 2023

Thuy Hua, AICP
Supervising Regional Planner
320 West Temple Street
Los Angeles, CA 90012
Ph: (213) 974-6461
Em: thua@planning.lacounty.gov
Em: climate@planning.lacounty.gov

**RE: Southwest Mountain States Regional Council of Carpenters’
Comments in Support of the County of Los Angeles’ Draft 2045
Climate Action Plan.**

Dear Thuy Hua:

On behalf of the Southwest Mountain States Regional Council of Carpenters (“**SWMSRCC**”), my Office is submitting these comments regarding the County of Los Angeles’ (“**County**”) Revised Draft Environmental Impact Report (“**RDEIR**”) for the Draft 2045 Climate Action Plan (“**Draft 2045 CAP**” or “**Plan**”).

SWMSRCC is a labor union representing over 63,000 union carpenters in 10 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Individual members of SWMSRCC live, work, and recreate in the unincorporated areas of the County and would be directly affected by the environmental and social impacts of future projects subject to the Plan.

SWMSRCC expressly reserves the right to supplement these comments at or prior to future hearings or proceedings related to the Plan. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; accord *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

SWMSRCC incorporates by reference all comments raising issues regarding the Plan and its environmental review, including associated documents and reports. See

O14-1

O14-2

California Clean Energy Com. v. City of Woodland (2014) 225 Cal.App.4th 173, 191 (citing *Citizens for Open Government v. City of Lodi* (2006) 144 Cal.App.4th 865, 875) (any party who has objected to a project’s environmental documentation may assert any issue timely raised by other parties); see also *Santa Teresa Citizen Action Group v. City of San Jose* (2003) 114 Cal.App.4th 689, 701 (citing Pub. Res. Code, § 21177, subds. (a), (b)) (in order to attack a decision that is subject to the California Environmental Quality Act (CEQA), the alleged grounds for noncompliance must have been presented to the public agency, and the party attacking the decision must have raised some objection during the administrative proceedings).

O14-2
(cont.)

Moreover, SWMSRCC requests that the County provide notice for any and all actions referring or relating to the Project issued under CEQA (Pub. Res. Code, § 21000 et seq.), and the California Planning and Zoning Law (Gov. Code, §§ 65000–65010). California Public Resources Code, sections 21092.2 and 21167, subsection (f) and California Government Code, section 65092 require agencies to mail such notices to any party who has filed a written request for them with the clerk of the agency’s governing body.

O14-3

I. THE COUNTY SHOULD REQUIRE THE USE OF A LOCAL SKILLED AND TRAINED WORKFORCE TO BENEFIT ITS ECONOMIC DEVELOPMENT AND THE ENVIRONMENT.

The County has committed itself to meet the goals of the 2016 Paris Climate Agreement and achieving carbon neutrality for its unincorporated areas by adapting programs and services to essentially reduce GHG emissions. See Draft 2045 CAP, p. ES-1. The Plan “identifies strategies, measures, and actions to mitigate GHG emissions from community activities, which may include some municipal operations[.]” *Ibid.* Considering that transportation by on-road vehicles comprises 52% of the 5.2 million metric tons of carbon dioxide equivalent (MTCO₂e) that unincorporated L.A. County emitted in 2018 (the most recent inventory completed), and that “the largest decline in emissions will result from changes to the transportation” sector, it is vital that the Plan implement strategies, measures, and actions that effectively curb the amount of time individuals spend on the road. Draft 2045 CAP, p. ES-7.

O14-4

Besides increasing densities and diversity of land uses near transit, reducing single-occupancy vehicle trips, and institutionalizing low-carbon transportation, the Plan should mandate additional measures and strategies. Draft 2045 CAP, p. ES-5.

O14-5

To this aim, the County should require that all developers of future projects subject to the Plan utilize local workers who are registered apprentices in, have graduated from, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from, a Joint Labor-Management Apprenticeship Program approved by the State of California.

O14-6

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impacts of future projects subject to the Plan. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of future project sites can reduce the length of vendor trips, reduce greenhouse gas (GHG) emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

[A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

O14-7

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

O14-8

[L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California’s workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.¹

Furthermore, workforce policies have significant environmental benefits given that they improve an area’s jobs-housing balance, decreasing the amount and length of job

O14-9

¹ California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* <https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf>.

commutes and the associated GHG emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District (South Coast AQMD) found that the use of a local state-certified apprenticeship program can result in air pollutant reductions.²

O14-9
(cont.)

The extent and significance on the environment of locating jobs closer to residential areas cannot be overstated. As the California Planning Roundtable has noted:

People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.³

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.⁴ Some municipalities have actually tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

O14-10

In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city’s First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than

² South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, available at <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10>.

³ California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, available at <https://cprroundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf>.

⁴ Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, available at <http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf>.

| | |
|---|---------------------------|
| <p>3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.</p> | <p>O14-10 (cont.)</p> |
| <p>Recently, the State of California verified its commitment to developing its workforce through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (AB2011). AB2011 amended the California Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet certain affordability and labor requirements.</p> | <p>O14-11</p> |
| <p>The Plan focuses heavily on ensuring that the path to carbon neutrality is inclusive, accessible, equitable, and fair. Draft 2045 CAP, p. 1-13. It intends to effectuate its goals in a way that prioritizes frontline communities and low-income households that have historically experienced a disproportionately high share of environmental impacts. Many of these communities and households are comprised of or include laborers and carpenters. To ensure that this sector of the workforce is included in the Plan’s definitive strategies and policies through a local hire mandate would not only further the County’s goal of utilizing the Plan as a “policy document,” but also further the Plan’s commitment to create opportunities to “integrate equity in ways that help reverse the trends of discrimination and disinvestment.” Draft 2045 CAP, p. 1-14.</p> | <p>O14-12</p> |
| <p>While the Plan’s Climate Equity Guiding Principles may be adequate for prioritizing equity, more should be mandated.</p> | <p>O14-13</p> |
| <p>Implementing a local workforce requirement in all future applicable projects aligns with prioritizing frontline communities, promoting collaborative work, and achieving direct results.</p> | <p>O14-14</p> |
| <p>The County should therefore consider mandating that all future projects in unincorporated L.A. County utilize local workforce policies and requirements to benefit the local area economically and to mitigate GHG emissions, improve air quality, and reduce transportation impacts.</p> | <p>O14-15</p> |
| <p>II. ALL FUTURE PROJECTS SHOULD BE CONSISTENT WITH THE 2045 CLIMATE ACTION PLAN APPROACH TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.</p> <p>CEQA is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. CEQA Guidelines,</p> | <p>O14-16</p> |

§ 15002, subd. (a)(1).⁵ At its core, its purpose is to “inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made.” *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Com. v. Board of Port Comrs. of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1354; *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 400. The Environmental Impact Report (EIR) serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.” CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns” specified in Public Resources Code section 21081. See CEQA Guidelines, §§ 15092, subds. (b)(2)(A)-(B).

While the courts review an EIR using an ‘abuse of discretion’ standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Keep Jets, supra*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights, supra*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA’s information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the First District Court of Appeal has previously stated, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory

O14-16
 (cont.)

⁵ The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Pub. Res. Code, § 21083. The CEQA Guidelines are given “great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous.” *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

goals of the EIR process. *Berkeley Keep Jets, supra*, 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR’s function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

O14-16
 (cont.)

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the “fair argument” standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of “B” St. v. City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that “may have a significant effect on the environment.” Pub. Res. Code, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75 (hereafter, “*No Oil*”); accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884 (hereafter, “*Jensen*”). Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. Pub. Res. Code, §§ 21100, subd. (a), 21151; CEQA Guidelines, §§ 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parke Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the lead agency *must* adopt a negative declaration. Pub. Res. Code, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3).

“Significant effect upon the environment” is defined as “a substantial or potentially substantial adverse change in the environment.” Pub. Res. Code, § 21068; CEQA

Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, supra*, 13 Cal.App.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309 (hereafter, “*Sundstrom*”). If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

O14-16
(cont.)

This standard sets a “low threshold” for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom, supra*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen, supra*, 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of “B” St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1).

SWMSRCC supports the Plan’s element to develop a new review consistency checklist to allow future projects to streamline GHG analyses pursuant to CEQA by allowing that General Plan-consistent projects that incorporate applicable 2045 CAP actions be excused from a separate quantitative GHG analysis. See Draft 2045 CAP, pp. ES-2, 1-4, 1-5. The CEQA Guidelines specify that CEQA review of a project’s GHG emissions can be streamlined should the CAP do the following:

O14-17

- Quantifies GHG emissions, both existing and projected, from activities within a defined geographic area over a specified time period.
- Establishes a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
- Identifies and analyzes the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.

O14-18

- Specifies measures or a group of measures, including performance standards, that would collectively achieve the specified emissions level if implemented on a project-by-project basis, as demonstrated by substantial evidence.
- Establishes a mechanism for monitoring the plan’s progress toward achieving the target, and requires an amendment if the plan is not achieving specified levels.
- Is adopted in a public process following environmental review.

O14-18
(cont.)

See Draft 2045 CAP, p. 1-4; CEQA Guidelines, § 15183.5.

Additionally, the Plan meets the requirements of CEQA Guidelines, section 15183.5 by:

- Quantifying all primary sectors of GHG emissions associated with all activities occurring within unincorporated Los Angeles County over which the County has some level of jurisdictional control or influence¹ for 2015 through 2045;
- Establishing GHG emissions reduction targets for 2030, 2035, and 2045, below which GHG emissions would not be cumulatively considerable based on the substantial evidence that the 2045 CAP is consistent with the 2022 Scoping Plan, Senate Bill (SB) 32, and AB 1279,² as well as an aspirational goal for 2045;
- Analyzing community emissions for unincorporated Los Angeles County as a whole and including predicted growth expected by 2045;
- Including specific mandatory and voluntary measures that quantitatively achieve the overall reduction targets for 2030, 2035, and 2045, and make progress toward the aspirational goal for 2045;
- Including an implementation and monitoring program that contains performance indicators and targets, details regarding funding and financing strategies, a list of available and expected funding sources, and a table for monitoring and reporting progress on the measures and their implementing actions; and,
- Being adopted through a public process in compliance with CEQA.

Id.

¹Considering the magnitude of the emissions generated by on-road transportation in unincorporated L.A. County, coupled with the wide-reaching benefits of a reduction in VMT resulting from local hire requirements, SWMSRCC requests that the County

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include an additional provision into the Plan’s CEQA streamlining procedures by mandating that a local hire measure be included in the checklist addressing all feasible applicable measures or alternative project emissions reduction measures as project features or as GHG mitigation measures for projects that are required or electing to prepare a project-specific GHG analysis. See Draft 2045 CAP, p. 1-5.

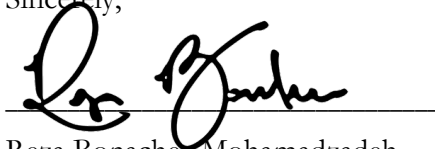
O14-19
(cont.)

III. CONCLUSION

SWMSRCC respectfully requests that the County take into consideration the aforementioned concerns and incorporate the measures suggested into its implementation of the Plan. Doing so would address several of the Plan’s strategy areas and further its overarching purpose, namely, to reduce the County’s impact on climate change, to aid in its “obligation under CEQA . . . and various California Executive Orders to do its part to reduce GHG emissions within the state[,]” and to do so in ways that “support pathways toward equitable and transformative implementation of climate strategies.” Draft 2045 CAP, p. 1-15. Should the County have any questions or concerns, it should feel free to contact my Office.

O14-20

Sincerely,



Reza Bonachea Mohamadzadeh
Attorney for Southwest Mountain
States Regional Council of Carpenters

Attached:

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B);

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

O14-21

EXHIBIT A



Technical Consultation, Data Analysis and
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March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise (“SWAPE”) is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas (“GHG”) emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model (“CalEEMod”) is a “statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.”¹ CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.²

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.³

¹ “California Emissions Estimator Model.” CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

² “California Emissions Estimator Model.” CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

³ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled (“VMT”) associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.⁴

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

$$\text{“VMT}_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$$

Where:

$$n = \text{Number of land uses being modeled.”}^5$$

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

$$\text{“Emissions}_{\text{pollutant}} = \text{VMT} * \text{EF}_{\text{running,pollutant}}$$

Where:

$$\text{Emissions}_{\text{pollutant}} = \text{emissions from vehicle running for each pollutant}$$

$$\text{VMT} = \text{vehicle miles traveled}$$

$$\text{EF}_{\text{running,pollutant}} = \text{emission factor for running emissions.”}^6$$

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.⁷ In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (“CEQA”) requires that such changes be justified by substantial evidence.⁸ The default number of construction-related worker trips is calculated by multiplying the

⁴ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.

⁵ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.

⁶ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.

⁷ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

⁸ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.⁹ Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively.¹⁰ Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.¹¹ The operational home-to-work vehicle trip lengths are:

“[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings” (emphasis added).¹²

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).¹³

| Worker Trip Length by Air Basin | | |
|---------------------------------|---------------|---------------|
| Air Basin | Rural (miles) | Urban (miles) |
| Great Basin Valleys | 16.8 | 10.8 |
| Lake County | 16.8 | 10.8 |
| Lake Tahoe | 16.8 | 10.8 |
| Mojave Desert | 16.8 | 10.8 |
| Mountain Counties | 16.8 | 10.8 |
| North Central Coast | 17.1 | 12.3 |
| North Coast | 16.8 | 10.8 |
| Northeast Plateau | 16.8 | 10.8 |
| Sacramento Valley | 16.8 | 10.8 |
| Salton Sea | 14.6 | 11 |
| San Diego | 16.8 | 10.8 |
| San Francisco Bay Area | 10.8 | 10.8 |
| San Joaquin Valley | 16.8 | 10.8 |
| South Central Coast | 16.8 | 10.8 |
| South Coast | 19.8 | 14.7 |
| Average | 16.47 | 11.17 |
| Minimum | 10.80 | 10.80 |
| Maximum | 19.80 | 14.70 |
| Range | 9.00 | 3.90 |

⁹ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

¹⁰ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.

¹¹ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.

¹² “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.

¹³ “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8- miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7- miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan (“Project”) located in the City of Claremont (“City”). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.¹⁴ In an effort to evaluate the potential for a local hire provision to reduce the Project’s construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

| Local Hire Provision Net Change | |
|--|------------|
| Without Local Hire Provision | |
| Total Construction GHG Emissions (MT CO ₂ e) | 3,623 |
| Amortized Construction GHG Emissions (MT CO ₂ e/year) | 120.77 |
| With Local Hire Provision | |
| Total Construction GHG Emissions (MT CO ₂ e) | 3,024 |
| Amortized Construction GHG Emissions (MT CO ₂ e/year) | 100.80 |
| % Decrease in Construction-related GHG Emissions | 17% |

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project’s urbanization level and location.

¹⁴ “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachment A

| Location Type | Location Name | Rural H-W (miles) | Urban H-W (miles) |
|----------------------|----------------------|------------------------------|------------------------------|
| Air Basin | Great Basin | 16.8 | 10.8 |
| Air Basin | Lake County | 16.8 | 10.8 |
| Air Basin | Lake Tahoe | 16.8 | 10.8 |
| Air Basin | Mojave Desert | 16.8 | 10.8 |
| Air Basin | Mountain | 16.8 | 10.8 |
| Air Basin | North Central | 17.1 | 12.3 |
| Air Basin | North Coast | 16.8 | 10.8 |
| Air Basin | Northeast | 16.8 | 10.8 |
| Air Basin | Sacramento | 16.8 | 10.8 |
| Air Basin | Salton Sea | 14.6 | 11 |
| Air Basin | San Diego | 16.8 | 10.8 |
| Air Basin | San Francisco | 10.8 | 10.8 |
| Air Basin | San Joaquin | 16.8 | 10.8 |
| Air Basin | South Central | 16.8 | 10.8 |
| Air Basin | South Coast | 19.8 | 14.7 |
| Air District | Amador County | 16.8 | 10.8 |
| Air District | Antelope Valley | 16.8 | 10.8 |
| Air District | Bay Area AQMD | 10.8 | 10.8 |
| Air District | Butte County | 12.54 | 12.54 |
| Air District | Calaveras | 16.8 | 10.8 |
| Air District | Colusa County | 16.8 | 10.8 |
| Air District | El Dorado | 16.8 | 10.8 |
| Air District | Feather River | 16.8 | 10.8 |
| Air District | Glenn County | 16.8 | 10.8 |
| Air District | Great Basin | 16.8 | 10.8 |
| Air District | Imperial County | 10.2 | 7.3 |
| Air District | Kern County | 16.8 | 10.8 |
| Air District | Lake County | 16.8 | 10.8 |
| Air District | Lassen County | 16.8 | 10.8 |
| Air District | Mariposa | 16.8 | 10.8 |
| Air District | Mendocino | 16.8 | 10.8 |
| Air District | Modoc County | 16.8 | 10.8 |
| Air District | Mojave Desert | 16.8 | 10.8 |
| Air District | Monterey Bay | 16.8 | 10.8 |
| Air District | North Coast | 16.8 | 10.8 |
| Air District | Northern Sierra | 16.8 | 10.8 |
| Air District | Northern | 16.8 | 10.8 |
| Air District | Placer County | 16.8 | 10.8 |
| Air District | Sacramento | 15 | 10 |

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| | | | |
|--------------|-----------------|-------|-------|
| Air District | San Diego | 16.8 | 10.8 |
| Air District | San Joaquin | 16.8 | 10.8 |
| Air District | San Luis Obispo | 13 | 13 |
| Air District | Santa Barbara | 8.3 | 8.3 |
| Air District | Shasta County | 16.8 | 10.8 |
| Air District | Siskiyou County | 16.8 | 10.8 |
| Air District | South Coast | 19.8 | 14.7 |
| Air District | Tehama County | 16.8 | 10.8 |
| Air District | Tuolumne | 16.8 | 10.8 |
| Air District | Ventura County | 16.8 | 10.8 |
| Air District | Yolo/Solano | 15 | 10 |
| County | Alameda | 10.8 | 10.8 |
| County | Alpine | 16.8 | 10.8 |
| County | Amador | 16.8 | 10.8 |
| County | Butte | 12.54 | 12.54 |
| County | Calaveras | 16.8 | 10.8 |
| County | Colusa | 16.8 | 10.8 |
| County | Contra Costa | 10.8 | 10.8 |
| County | Del Norte | 16.8 | 10.8 |
| County | El Dorado-Lake | 16.8 | 10.8 |
| County | El Dorado- | 16.8 | 10.8 |
| County | Fresno | 16.8 | 10.8 |
| County | Glenn | 16.8 | 10.8 |
| County | Humboldt | 16.8 | 10.8 |
| County | Imperial | 10.2 | 7.3 |
| County | Inyo | 16.8 | 10.8 |
| County | Kern-Mojave | 16.8 | 10.8 |
| County | Kern-San | 16.8 | 10.8 |
| County | Kings | 16.8 | 10.8 |
| County | Lake | 16.8 | 10.8 |
| County | Lassen | 16.8 | 10.8 |
| County | Los Angeles- | 16.8 | 10.8 |
| County | Los Angeles- | 19.8 | 14.7 |
| County | Madera | 16.8 | 10.8 |
| County | Marin | 10.8 | 10.8 |
| County | Mariposa | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Merced | 16.8 | 10.8 |
| County | Modoc | 16.8 | 10.8 |
| County | Mono | 16.8 | 10.8 |
| County | Monterey | 16.8 | 10.8 |
| County | Napa | 10.8 | 10.8 |

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| | | | |
|-----------|------------------|------|------|
| County | Nevada | 16.8 | 10.8 |
| County | Orange | 19.8 | 14.7 |
| County | Placer-Lake | 16.8 | 10.8 |
| County | Placer-Mountain | 16.8 | 10.8 |
| County | Placer- | 16.8 | 10.8 |
| County | Plumas | 16.8 | 10.8 |
| County | Riverside- | 16.8 | 10.8 |
| County | Riverside- | 19.8 | 14.7 |
| County | Riverside-Salton | 14.6 | 11 |
| County | Riverside-South | 19.8 | 14.7 |
| County | Sacramento | 15 | 10 |
| County | San Benito | 16.8 | 10.8 |
| County | San Bernardino- | 16.8 | 10.8 |
| County | San Bernardino- | 19.8 | 14.7 |
| County | San Diego | 16.8 | 10.8 |
| County | San Francisco | 10.8 | 10.8 |
| County | San Joaquin | 16.8 | 10.8 |
| County | San Luis Obispo | 13 | 13 |
| County | San Mateo | 10.8 | 10.8 |
| County | Santa Barbara- | 8.3 | 8.3 |
| County | Santa Barbara- | 8.3 | 8.3 |
| County | Santa Clara | 10.8 | 10.8 |
| County | Santa Cruz | 16.8 | 10.8 |
| County | Shasta | 16.8 | 10.8 |
| County | Sierra | 16.8 | 10.8 |
| County | Siskiyou | 16.8 | 10.8 |
| County | Solano- | 15 | 10 |
| County | Solano-San | 16.8 | 10.8 |
| County | Sonoma-North | 16.8 | 10.8 |
| County | Sonoma-San | 10.8 | 10.8 |
| County | Stanislaus | 16.8 | 10.8 |
| County | Sutter | 16.8 | 10.8 |
| County | Tehama | 16.8 | 10.8 |
| County | Trinity | 16.8 | 10.8 |
| County | Tulare | 16.8 | 10.8 |
| County | Tuolumne | 16.8 | 10.8 |
| County | Ventura | 16.8 | 10.8 |
| County | Yolo | 15 | 10 |
| County | Yuba | 16.8 | 10.8 |
| Statewide | Statewide | 16.8 | 10.8 |

| Worker Trip Length by Air Basin | | |
|--|----------------------|----------------------|
| Air Basin | Rural (miles) | Urban (miles) |
| Great Basin Valleys | 16.8 | 10.8 |
| Lake County | 16.8 | 10.8 |
| Lake Tahoe | 16.8 | 10.8 |
| Mojave Desert | 16.8 | 10.8 |
| Mountain Counties | 16.8 | 10.8 |
| North Central Coast | 17.1 | 12.3 |
| North Coast | 16.8 | 10.8 |
| Northeast Plateau | 16.8 | 10.8 |
| Sacramento Valley | 16.8 | 10.8 |
| Salton Sea | 14.6 | 11 |
| San Diego | 16.8 | 10.8 |
| San Francisco Bay Area | 10.8 | 10.8 |
| San Joaquin Valley | 16.8 | 10.8 |
| South Central Coast | 16.8 | 10.8 |
| South Coast | 19.8 | 14.7 |
| Average | 16.47 | 11.17 |
| Minimum | 10.80 | 10.80 |
| Maximum | 19.80 | 14.70 |
| Range | 9.00 | 3.90 |

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Village South Specific Plan (Proposed)
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1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
| Climate Zone | 9 | | | Operational Year | 2028 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

| Table Name | Column Name | Default Value | New Value |
|-----------------|-------------------|---------------|-----------|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |

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| | | | |
|-----------------|--------------------|--------|-------|
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

2.1 Overall Construction

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1713 | 1.8242 | 1.1662 | 2.4000e-003 | 0.4169 | 0.0817 | 0.4986 | 0.1795 | 0.0754 | 0.2549 | 0.0000 | 213.1969 | 213.1969 | 0.0601 | 0.0000 | 214.6993 |
| 2022 | 0.6904 | 4.1142 | 6.1625 | 0.0189 | 1.3058 | 0.1201 | 1.4259 | 0.3460 | 0.1128 | 0.4588 | 0.0000 | 1,721.6826 | 1,721.6826 | 0.1294 | 0.0000 | 1,724.9187 |
| 2023 | 0.6148 | 3.3649 | 5.6747 | 0.0178 | 1.1963 | 0.0996 | 1.2959 | 0.3203 | 0.0935 | 0.4138 | 0.0000 | 1,627.5295 | 1,627.5295 | 0.1185 | 0.0000 | 1,630.4925 |
| 2024 | 4.1619 | 0.1335 | 0.2810 | 5.9000e-004 | 0.0325 | 6.4700e-003 | 0.0390 | 8.6300e-003 | 6.0400e-003 | 0.0147 | 0.0000 | 52.9078 | 52.9078 | 8.0200e-003 | 0.0000 | 53.1082 |
| Maximum | 4.1619 | 4.1142 | 6.1625 | 0.0189 | 1.3058 | 0.1201 | 1.4259 | 0.3460 | 0.1128 | 0.4588 | 0.0000 | 1,721.6826 | 1,721.6826 | 0.1294 | 0.0000 | 1,724.9187 |

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2.1 Overall Construction

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|-------------|--------|------------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1713 | 1.8242 | 1.1662 | 2.4000e-003 | 0.4169 | 0.0817 | 0.4986 | 0.1795 | 0.0754 | 0.2549 | 0.0000 | 213.1967 | 213.1967 | 0.0601 | 0.0000 | 214.6991 |
| 2022 | 0.6904 | 4.1142 | 6.1625 | 0.0189 | 1.3058 | 0.1201 | 1.4259 | 0.3460 | 0.1128 | 0.4588 | 0.0000 | 1,721.6823 | 1,721.6823 | 0.1294 | 0.0000 | 1,724.9183 |
| 2023 | 0.6148 | 3.3648 | 5.6747 | 0.0178 | 1.1963 | 0.0996 | 1.2959 | 0.3203 | 0.0935 | 0.4138 | 0.0000 | 1,627.5291 | 1,627.5291 | 0.1185 | 0.0000 | 1,630.4921 |
| 2024 | 4.1619 | 0.1335 | 0.2810 | 5.9000e-004 | 0.0325 | 6.4700e-003 | 0.0390 | 8.6300e-003 | 6.0400e-003 | 0.0147 | 0.0000 | 52.9077 | 52.9077 | 8.0200e-003 | 0.0000 | 53.1082 |
| Maximum | 4.1619 | 4.1142 | 6.1625 | 0.0189 | 1.3058 | 0.1201 | 1.4259 | 0.3460 | 0.1128 | 0.4588 | 0.0000 | 1,721.6823 | 1,721.6823 | 0.1294 | 0.0000 | 1,724.9183 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|------------|--|--|
| 1 | 9-1-2021 | 11-30-2021 | 1.4103 | 1.4103 |
| 2 | 12-1-2021 | 2-28-2022 | 1.3613 | 1.3613 |
| 3 | 3-1-2022 | 5-31-2022 | 1.1985 | 1.1985 |
| 4 | 6-1-2022 | 8-31-2022 | 1.1921 | 1.1921 |
| 5 | 9-1-2022 | 11-30-2022 | 1.1918 | 1.1918 |
| 6 | 12-1-2022 | 2-28-2023 | 1.0774 | 1.0774 |
| 7 | 3-1-2023 | 5-31-2023 | 1.0320 | 1.0320 |
| 8 | 6-1-2023 | 8-31-2023 | 1.0260 | 1.0260 |

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| | | | | |
|----|-----------|------------|--------|--------|
| 9 | 9-1-2023 | 11-30-2023 | 1.0265 | 1.0265 |
| 10 | 12-1-2023 | 2-29-2024 | 2.8857 | 2.8857 |
| 11 | 3-1-2024 | 5-31-2024 | 1.6207 | 1.6207 |
| | | Highest | 2.8857 | 2.8857 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|-----------------|--------------------|--------------------|----------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Total | 6.8692 | 9.5223 | 30.3407 | 0.0914 | 7.7979 | 0.2260 | 8.0240 | 2.0895 | 0.2219 | 2.3114 | 236.9712 | 12,294.1807 | 12,531.1519 | 15.7904 | 0.1260 | 12,963.4751 |

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2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|-----------------|--------------------|--------------------|----------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Total | 6.8692 | 9.5223 | 30.3407 | 0.0914 | 7.7979 | 0.2260 | 8.0240 | 2.0895 | 0.2219 | 2.3114 | 236.9712 | 12,294.1807 | 12,531.1519 | 15.7904 | 0.1260 | 12,963.4751 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0012 | 51.0012 | 0.0144 | 0.0000 | 51.3601 |
| Total | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | 0.0496 | 0.0233 | 0.0729 | 7.5100e-003 | 0.0216 | 0.0291 | 0.0000 | 51.0012 | 51.0012 | 0.0144 | 0.0000 | 51.3601 |

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 9.7000e-004 | 7.5000e-004 | 8.5100e-003 | 2.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.5000e-004 | 2.0000e-005 | 6.7000e-004 | 0.0000 | 2.2251 | 2.2251 | 7.0000e-005 | 0.0000 | 2.2267 |
| Total | 2.9000e-003 | 0.0641 | 0.0233 | 2.0000e-004 | 6.4100e-003 | 2.1000e-004 | 6.6200e-003 | 1.7300e-003 | 2.0000e-004 | 1.9300e-003 | 0.0000 | 19.6816 | 19.6816 | 1.2800e-003 | 0.0000 | 19.7136 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0011 | 51.0011 | 0.0144 | 0.0000 | 51.3600 |
| Total | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | 0.0496 | 0.0233 | 0.0729 | 7.5100e-003 | 0.0216 | 0.0291 | 0.0000 | 51.0011 | 51.0011 | 0.0144 | 0.0000 | 51.3600 |

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3.2 Demolition - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 9.7000e-004 | 7.5000e-004 | 8.5100e-003 | 2.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.5000e-004 | 2.0000e-005 | 6.7000e-004 | 0.0000 | 2.2251 | 2.2251 | 7.0000e-005 | 0.0000 | 2.2267 |
| Total | 2.9000e-003 | 0.0641 | 0.0233 | 2.0000e-004 | 6.4100e-003 | 2.1000e-004 | 6.6200e-003 | 1.7300e-003 | 2.0000e-004 | 1.9300e-003 | 0.0000 | 19.6816 | 19.6816 | 1.2800e-003 | 0.0000 | 19.7136 |

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7061 |
| Total | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | 0.1807 | 0.0204 | 0.2011 | 0.0993 | 0.0188 | 0.1181 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7061 |

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.7000e-004 | 6.0000e-004 | 6.8100e-003 | 2.0000e-005 | 1.9700e-003 | 2.0000e-005 | 1.9900e-003 | 5.2000e-004 | 1.0000e-005 | 5.4000e-004 | 0.0000 | 1.7801 | 1.7801 | 5.0000e-005 | 0.0000 | 1.7814 |
| Total | 7.7000e-004 | 6.0000e-004 | 6.8100e-003 | 2.0000e-005 | 1.9700e-003 | 2.0000e-005 | 1.9900e-003 | 5.2000e-004 | 1.0000e-005 | 5.4000e-004 | 0.0000 | 1.7801 | 1.7801 | 5.0000e-005 | 0.0000 | 1.7814 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7060 |
| Total | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | 0.1807 | 0.0204 | 0.2011 | 0.0993 | 0.0188 | 0.1181 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7060 |

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.7000e-004 | 6.0000e-004 | 6.8100e-003 | 2.0000e-005 | 1.9700e-003 | 2.0000e-005 | 1.9900e-003 | 5.2000e-004 | 1.0000e-005 | 5.4000e-004 | 0.0000 | 1.7801 | 1.7801 | 5.0000e-005 | 0.0000 | 1.7814 |
| Total | 7.7000e-004 | 6.0000e-004 | 6.8100e-003 | 2.0000e-005 | 1.9700e-003 | 2.0000e-005 | 1.9900e-003 | 5.2000e-004 | 1.0000e-005 | 5.4000e-004 | 0.0000 | 1.7801 | 1.7801 | 5.0000e-005 | 0.0000 | 1.7814 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5405 | 103.5405 | 0.0335 | 0.0000 | 104.3776 |
| Total | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | 0.1741 | 0.0377 | 0.2118 | 0.0693 | 0.0347 | 0.1040 | 0.0000 | 103.5405 | 103.5405 | 0.0335 | 0.0000 | 104.3776 |

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3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6400e-003 | 1.2700e-003 | 0.0144 | 4.0000e-005 | 4.1600e-003 | 3.0000e-005 | 4.2000e-003 | 1.1100e-003 | 3.0000e-005 | 1.1400e-003 | 0.0000 | 3.7579 | 3.7579 | 1.1000e-004 | 0.0000 | 3.7607 |
| Total | 1.6400e-003 | 1.2700e-003 | 0.0144 | 4.0000e-005 | 4.1600e-003 | 3.0000e-005 | 4.2000e-003 | 1.1100e-003 | 3.0000e-005 | 1.1400e-003 | 0.0000 | 3.7579 | 3.7579 | 1.1000e-004 | 0.0000 | 3.7607 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5403 | 103.5403 | 0.0335 | 0.0000 | 104.3775 |
| Total | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | 0.1741 | 0.0377 | 0.2118 | 0.0693 | 0.0347 | 0.1040 | 0.0000 | 103.5403 | 103.5403 | 0.0335 | 0.0000 | 104.3775 |

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3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6400e-003 | 1.2700e-003 | 0.0144 | 4.0000e-005 | 4.1600e-003 | 3.0000e-005 | 4.2000e-003 | 1.1100e-003 | 3.0000e-005 | 1.1400e-003 | 0.0000 | 3.7579 | 3.7579 | 1.1000e-004 | 0.0000 | 3.7607 |
| Total | 1.6400e-003 | 1.2700e-003 | 0.0144 | 4.0000e-005 | 4.1600e-003 | 3.0000e-005 | 4.2000e-003 | 1.1100e-003 | 3.0000e-005 | 1.1400e-003 | 0.0000 | 3.7579 | 3.7579 | 1.1000e-004 | 0.0000 | 3.7607 |

3.4 Grading - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| Total | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | 0.0807 | 5.7200e-003 | 0.0865 | 0.0180 | 5.2600e-003 | 0.0233 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |

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3.4 Grading - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 2.1000e-004 | 2.4400e-003 | 1.0000e-005 | 7.7000e-004 | 1.0000e-005 | 7.7000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6679 | 0.6679 | 2.0000e-005 | 0.0000 | 0.6684 |
| Total | 2.8000e-004 | 2.1000e-004 | 2.4400e-003 | 1.0000e-005 | 7.7000e-004 | 1.0000e-005 | 7.7000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6679 | 0.6679 | 2.0000e-005 | 0.0000 | 0.6684 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| Total | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | 0.0807 | 5.7200e-003 | 0.0865 | 0.0180 | 5.2600e-003 | 0.0233 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |

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3.4 Grading - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 2.1000e-004 | 2.4400e-003 | 1.0000e-005 | 7.7000e-004 | 1.0000e-005 | 7.7000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6679 | 0.6679 | 2.0000e-005 | 0.0000 | 0.6684 |
| Total | 2.8000e-004 | 2.1000e-004 | 2.4400e-003 | 1.0000e-005 | 7.7000e-004 | 1.0000e-005 | 7.7000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6679 | 0.6679 | 2.0000e-005 | 0.0000 | 0.6684 |

3.5 Building Construction - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1324 | 293.1324 | 0.0702 | 0.0000 | 294.8881 |
| Total | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1324 | 293.1324 | 0.0702 | 0.0000 | 294.8881 |

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3.5 Building Construction - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.4088 | 0.3066 | 3.5305 | 0.0107 | 1.1103 | 8.8700e-003 | 1.1192 | 0.2949 | 8.1700e-003 | 0.3031 | 0.0000 | 966.8117 | 966.8117 | 0.0266 | 0.0000 | 967.4773 |
| Total | 0.4616 | 2.0027 | 3.9885 | 0.0152 | 1.2243 | 0.0121 | 1.2363 | 0.3278 | 0.0112 | 0.3390 | 0.0000 | 1,408.7952 | 1,408.7952 | 0.0530 | 0.0000 | 1,410.1208 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1321 | 293.1321 | 0.0702 | 0.0000 | 294.8877 |
| Total | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1321 | 293.1321 | 0.0702 | 0.0000 | 294.8877 |

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3.5 Building Construction - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.4088 | 0.3066 | 3.5305 | 0.0107 | 1.1103 | 8.8700e-003 | 1.1192 | 0.2949 | 8.1700e-003 | 0.3031 | 0.0000 | 966.8117 | 966.8117 | 0.0266 | 0.0000 | 967.4773 |
| Total | 0.4616 | 2.0027 | 3.9885 | 0.0152 | 1.2243 | 0.0121 | 1.2363 | 0.3278 | 0.0112 | 0.3390 | 0.0000 | 1,408.7952 | 1,408.7952 | 0.0530 | 0.0000 | 1,410.1208 |

3.5 Building Construction - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2789 | 286.2789 | 0.0681 | 0.0000 | 287.9814 |
| Total | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2789 | 286.2789 | 0.0681 | 0.0000 | 287.9814 |

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.3753 | 0.2708 | 3.1696 | 0.0101 | 1.0840 | 8.4100e-003 | 1.0924 | 0.2879 | 7.7400e-003 | 0.2957 | 0.0000 | 909.3439 | 909.3439 | 0.0234 | 0.0000 | 909.9291 |
| Total | 0.4135 | 1.5218 | 3.5707 | 0.0144 | 1.1953 | 9.8700e-003 | 1.2051 | 0.3200 | 9.1400e-003 | 0.3292 | 0.0000 | 1,327.3369 | 1,327.3369 | 0.0462 | 0.0000 | 1,328.4916 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2785 | 286.2785 | 0.0681 | 0.0000 | 287.9811 |
| Total | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2785 | 286.2785 | 0.0681 | 0.0000 | 287.9811 |

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3.5 Building Construction - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.3753 | 0.2708 | 3.1696 | 0.0101 | 1.0840 | 8.4100e-003 | 1.0924 | 0.2879 | 7.7400e-003 | 0.2957 | 0.0000 | 909.3439 | 909.3439 | 0.0234 | 0.0000 | 909.9291 |
| Total | 0.4135 | 1.5218 | 3.5707 | 0.0144 | 1.1953 | 9.8700e-003 | 1.2051 | 0.3200 | 9.1400e-003 | 0.3292 | 0.0000 | 1,327.3369 | 1,327.3369 | 0.0462 | 0.0000 | 1,328.4916 |

3.6 Paving - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |

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3.6 Paving - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.7000e-004 | 2.7000e-004 | 3.1200e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8963 | 0.8963 | 2.0000e-005 | 0.0000 | 0.8968 |
| Total | 3.7000e-004 | 2.7000e-004 | 3.1200e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8963 | 0.8963 | 2.0000e-005 | 0.0000 | 0.8968 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |

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3.6 Paving - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.7000e-004 | 2.7000e-004 | 3.1200e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8963 | 0.8963 | 2.0000e-005 | 0.0000 | 0.8968 |
| Total | 3.7000e-004 | 2.7000e-004 | 3.1200e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8963 | 0.8963 | 2.0000e-005 | 0.0000 | 0.8968 |

3.6 Paving - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |

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3.6 Paving - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.9000e-004 | 4.1000e-004 | 4.9200e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.4697 | 1.4697 | 4.0000e-005 | 0.0000 | 1.4706 |
| Total | 5.9000e-004 | 4.1000e-004 | 4.9200e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.4697 | 1.4697 | 4.0000e-005 | 0.0000 | 1.4706 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |

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3.6 Paving - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.9000e-004 | 4.1000e-004 | 4.9200e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.4697 | 1.4697 | 4.0000e-005 | 0.0000 | 1.4706 |
| Total | 5.9000e-004 | 4.1000e-004 | 4.9200e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.4697 | 1.4697 | 4.0000e-005 | 0.0000 | 1.4706 |

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| Total | 4.1404 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0101 | 6.9900e-003 | 0.0835 | 2.8000e-004 | 0.0307 | 2.3000e-004 | 0.0309 | 8.1500e-003 | 2.2000e-004 | 8.3700e-003 | 0.0000 | 24.9407 | 24.9407 | 6.1000e-004 | 0.0000 | 24.9558 |
| Total | 0.0101 | 6.9900e-003 | 0.0835 | 2.8000e-004 | 0.0307 | 2.3000e-004 | 0.0309 | 8.1500e-003 | 2.2000e-004 | 8.3700e-003 | 0.0000 | 24.9407 | 24.9407 | 6.1000e-004 | 0.0000 | 24.9558 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| Total | 4.1404 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0101 | 6.9900e-003 | 0.0835 | 2.8000e-004 | 0.0307 | 2.3000e-004 | 0.0309 | 8.1500e-003 | 2.2000e-004 | 8.3700e-003 | 0.0000 | 24.9407 | 24.9407 | 6.1000e-004 | 0.0000 | 24.9558 |
| Total | 0.0101 | 6.9900e-003 | 0.0835 | 2.8000e-004 | 0.0307 | 2.3000e-004 | 0.0309 | 8.1500e-003 | 2.2000e-004 | 8.3700e-003 | 0.0000 | 24.9407 | 24.9407 | 6.1000e-004 | 0.0000 | 24.9558 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Unmitigated | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down) | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| NaturalGas Mitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |
| NaturalGas Unmitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.9036 | 92.9036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| Total | | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4268 | 1,383.4268 | 0.0265 | 0.0254 | 1,391.6478 |

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5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.9036 | 92.9036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| Total | | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4268 | 1,383.4268 | 0.0265 | 0.0254 | 1,391.6478 |

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5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.94697e+006 | 1,257.5879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| Total | | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |

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5.3 Energy by Land Use - Electricity

Mitigated

| Land Use | Electricity Use kWh/yr | Total CO2 MT/yr | CH4 MT/yr | N2O MT/yr | CO2e MT/yr |
|-------------------------------------|---------------------------|--------------------|---------------|---------------|-------------------|
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.94697e+006 | 1,257.5879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| Total | | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|-------------|----------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Unmitigated | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|----------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1166 | 204.1166 | 3.9100e-003 | 3.7400e-003 | 205.3295 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| Total | 5.1437 | 0.2950 | 10.3804 | 1.6600e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

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6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|----------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1166 | 204.1166 | 3.9100e-003 | 3.7400e-003 | 205.3295 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| Total | 5.1437 | 0.2950 | 10.3804 | 1.6600e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

7.0 Water Detail

7.1 Mitigation Measures Water

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| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|----------|
| Category | MT/yr | | | |
| Mitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Unmitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|--------------------|-----------------|---------------|---------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.8200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| Total | | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|--------------------|-----------------|---------------|---------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.8200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| Total | | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|---------|--------|----------|
| | MT/yr | | | |
| Mitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Unmitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Unmitigated

| Land Use | Waste Disposed tons | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|------------------------|-----------------|----------------|---------------|-----------------|
| | | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| Total | | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| Total | | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
| Climate Zone | 9 | | | Operational Year | 2028 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

| Table Name | Column Name | Default Value | New Value |
|-----------------|-------------------|---------------|-----------|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | | | |
|-----------------|--------------------|--------|-------|
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|-----------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2769 | 46.4588 | 31.6840 | 0.0643 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,234.7974 | 6,234.7974 | 1.9495 | 0.0000 | 6,283.5352 |
| 2022 | 5.3304 | 38.8967 | 49.5629 | 0.1517 | 9.8688 | 1.6366 | 10.7727 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 15,251.5674 | 15,251.5674 | 1.9503 | 0.0000 | 15,278.5288 |
| 2023 | 4.8957 | 26.3317 | 46.7567 | 0.1472 | 9.8688 | 0.7794 | 10.6482 | 2.6381 | 0.7322 | 3.3702 | 0.0000 | 14,807.5269 | 14,807.5269 | 1.0250 | 0.0000 | 14,833.1521 |
| 2024 | 237.1630 | 9.5575 | 15.1043 | 0.0244 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,361.3989 | 2,361.3989 | 0.7177 | 0.0000 | 2,379.3421 |
| Maximum | 237.1630 | 46.4588 | 49.5629 | 0.1517 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 15,251.5674 | 15,251.5674 | 1.9503 | 0.0000 | 15,278.5288 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|----------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2769 | 46.4588 | 31.6840 | 0.0643 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,234.7974 | 6,234.7974 | 1.9495 | 0.0000 | 6,283.5352 |
| 2022 | 5.3304 | 38.8967 | 49.5629 | 0.1517 | 9.8688 | 1.6366 | 10.7727 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 15,251.5674 | 15,251.5674 | 1.9503 | 0.0000 | 15,278.5288 |
| 2023 | 4.8957 | 26.3317 | 46.7567 | 0.1472 | 9.8688 | 0.7794 | 10.6482 | 2.6381 | 0.7322 | 3.3702 | 0.0000 | 14,807.5269 | 14,807.5269 | 1.0250 | 0.0000 | 14,833.1520 |
| 2024 | 237.1630 | 9.5575 | 15.1043 | 0.0244 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,361.3989 | 2,361.3989 | 0.7177 | 0.0000 | 2,379.3421 |
| Maximum | 237.1630 | 46.4588 | 49.5629 | 0.1517 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 15,251.5674 | 15,251.5674 | 1.9503 | 0.0000 | 15,278.5288 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| Total | 41.1168 | 67.2262 | 207.5497 | 0.6278 | 45.9592 | 2.4626 | 48.4217 | 12.2950 | 2.4385 | 14.7336 | 0.0000 | 76,811.1816 | 76,811.1816 | 2.8282 | 0.4832 | 77,025.8786 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| Total | 41.1168 | 67.2262 | 207.5497 | 0.6278 | 45.9592 | 2.4626 | 48.4217 | 12.2950 | 2.4385 | 14.7336 | 0.0000 | 76,811.1816 | 76,811.1816 | 2.8282 | 0.4832 | 77,025.8786 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0643 | 0.0442 | 0.6042 | 1.7100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 170.8155 | 170.8155 | 5.0300e-003 | | 170.9413 |
| Total | 0.1916 | 4.1394 | 1.5644 | 0.0136 | 0.4346 | 0.0139 | 0.4485 | 0.1176 | 0.0133 | 0.1309 | | 1,463.0568 | 1,463.0568 | 0.0927 | | 1,465.3750 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0643 | 0.0442 | 0.6042 | 1.7100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 170.8155 | 170.8155 | 5.0300e-003 | | 170.9413 |
| Total | 0.1916 | 4.1394 | 1.5644 | 0.0136 | 0.4346 | 0.0139 | 0.4485 | 0.1176 | 0.0133 | 0.1309 | | 1,463.0568 | 1,463.0568 | 0.0927 | | 1,465.3750 |

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0772 | 0.0530 | 0.7250 | 2.0600e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 204.9786 | 204.9786 | 6.0400e-003 | | 205.1296 |
| Total | 0.0772 | 0.0530 | 0.7250 | 2.0600e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 204.9786 | 204.9786 | 6.0400e-003 | | 205.1296 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0772 | 0.0530 | 0.7250 | 2.0600e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 204.9786 | 204.9786 | 6.0400e-003 | | 205.1296 |
| Total | 0.0772 | 0.0530 | 0.7250 | 2.0600e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 204.9786 | 204.9786 | 6.0400e-003 | | 205.1296 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0857 | 0.0589 | 0.8056 | 2.2900e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 227.7540 | 227.7540 | 6.7100e-003 | | 227.9217 |
| Total | 0.0857 | 0.0589 | 0.8056 | 2.2900e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 227.7540 | 227.7540 | 6.7100e-003 | | 227.9217 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0857 | 0.0589 | 0.8056 | 2.2900e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 227.7540 | 227.7540 | 6.7100e-003 | | 227.9217 |
| Total | 0.0857 | 0.0589 | 0.8056 | 2.2900e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 227.7540 | 227.7540 | 6.7100e-003 | | 227.9217 |

3.4 Grading - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0803 | 0.0532 | 0.7432 | 2.2100e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 219.7425 | 219.7425 | 6.0600e-003 | | 219.8941 |
| Total | 0.0803 | 0.0532 | 0.7432 | 2.2100e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 219.7425 | 219.7425 | 6.0600e-003 | | 219.8941 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0803 | 0.0532 | 0.7432 | 2.2100e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 219.7425 | 219.7425 | 6.0600e-003 | | 219.8941 |
| Total | 0.0803 | 0.0532 | 0.7432 | 2.2100e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 219.7425 | 219.7425 | 6.0600e-003 | | 219.8941 |

3.5 Building Construction - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.548 2 | 3,896.548 2 | 0.2236 | | 3,902.138 4 |
| Worker | 3.2162 | 2.1318 | 29.7654 | 0.0883 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,800.685 7 | 8,800.685 7 | 0.2429 | | 8,806.758 2 |
| Total | 3.6242 | 15.3350 | 33.1995 | 0.1247 | 9.8688 | 0.0949 | 9.9637 | 2.6381 | 0.0883 | 2.7263 | | 12,697.23 39 | 12,697.23 39 | 0.4665 | | 12,708.89 66 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|------|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.548 2 | 3,896.548 2 | 0.2236 | | | 3,902.138 4 |
| Worker | 3.2162 | 2.1318 | 29.7654 | 0.0883 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,800.685 7 | 8,800.685 7 | 0.2429 | | | 8,806.758 2 |
| Total | 3.6242 | 15.3350 | 33.1995 | 0.1247 | 9.8688 | 0.0949 | 9.9637 | 2.6381 | 0.0883 | 2.7263 | | 12,697.23 39 | 12,697.23 39 | 0.4665 | | | 12,708.89 66 |

3.5 Building Construction - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|------|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.876 2 | 3,773.876 2 | 0.1982 | | | 3,778.830 0 |
| Worker | 3.0203 | 1.9287 | 27.4113 | 0.0851 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 8,478.440 8 | 8,478.440 8 | 0.2190 | | | 8,483.916 0 |
| Total | 3.3229 | 11.9468 | 30.5127 | 0.1203 | 9.8688 | 0.0797 | 9.9485 | 2.6381 | 0.0738 | 2.7118 | | 12,252.31 70 | 12,252.31 70 | 0.4172 | | | 12,262.74 60 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.876 2 | 3,773.876 2 | 0.1982 | | 3,778.830 0 |
| Worker | 3.0203 | 1.9287 | 27.4113 | 0.0851 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 8,478.440 8 | 8,478.440 8 | 0.2190 | | 8,483.916 0 |
| Total | 3.3229 | 11.9468 | 30.5127 | 0.1203 | 9.8688 | 0.0797 | 9.9485 | 2.6381 | 0.0738 | 2.7118 | | 12,252.31 70 | 12,252.31 70 | 0.4172 | | 12,262.74 60 |

3.6 Paving - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0566 | 0.0361 | 0.5133 | 1.5900e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 158.7723 | 158.7723 | 4.1000e-003 | | 158.8748 |
| Total | 0.0566 | 0.0361 | 0.5133 | 1.5900e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 158.7723 | 158.7723 | 4.1000e-003 | | 158.8748 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0566 | 0.0361 | 0.5133 | 1.5900e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 158.7723 | 158.7723 | 4.1000e-003 | | 158.8748 |
| Total | 0.0566 | 0.0361 | 0.5133 | 1.5900e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 158.7723 | 158.7723 | 4.1000e-003 | | 158.8748 |

3.6 Paving - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0535 | 0.0329 | 0.4785 | 1.5400e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 153.8517 | 153.8517 | 3.7600e-003 | | 153.9458 |
| Total | 0.0535 | 0.0329 | 0.4785 | 1.5400e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 153.8517 | 153.8517 | 3.7600e-003 | | 153.9458 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0535 | 0.0329 | 0.4785 | 1.5400e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 153.8517 | 153.8517 | 3.7600e-003 | | 153.9458 |
| Total | 0.0535 | 0.0329 | 0.4785 | 1.5400e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 153.8517 | 153.8517 | 3.7600e-003 | | 153.9458 |

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 |
| Worker | 0.5707 | 0.3513 | 5.1044 | 0.0165 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,641.085 2 | 1,641.085 2 | 0.0401 | | | 1,642.088 6 |
| Total | 0.5707 | 0.3513 | 5.1044 | 0.0165 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,641.085 2 | 1,641.085 2 | 0.0401 | | | 1,642.088 6 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|------|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.5707 | 0.3513 | 5.1044 | 0.0165 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,641.085 2 | 1,641.085 2 | 0.0401 | | 1,642.088 6 |
| Total | 0.5707 | 0.3513 | 5.1044 | 0.0165 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,641.085 2 | 1,641.085 2 | 0.0401 | | 1,642.088 6 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|---------|----------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------------|-----------------|--------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.60 34 | 50,306.60 34 | 2.1807 | | 50,361.12 08 |
| Unmitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.60 34 | 50,306.60 34 | 2.1807 | | 50,361.12 08 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down) | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|----------------|--------|--------|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.983 2 | 8,355.983 2 | 0.1602 | 0.1532 | 8,405.638 7 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.983 2 | 8,355.983 2 | 0.1602 | 0.1532 | 8,405.638 7 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4769.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35.7843 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7599 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
| Climate Zone | 9 | Operational Year | | 2028 | |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

| Table Name | Column Name | Default Value | New Value |
|-----------------|-------------------|---------------|-----------|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | | | |
|-----------------|--------------------|--------|-------|
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|-----------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2865 | 46.4651 | 31.6150 | 0.0642 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,221.4937 | 6,221.4937 | 1.9491 | 0.0000 | 6,270.2214 |
| 2022 | 5.7218 | 38.9024 | 47.3319 | 0.1455 | 9.8688 | 1.6366 | 10.7736 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 14,630.3099 | 14,630.3099 | 1.9499 | 0.0000 | 14,657.2663 |
| 2023 | 5.2705 | 26.4914 | 44.5936 | 0.1413 | 9.8688 | 0.7800 | 10.6488 | 2.6381 | 0.7328 | 3.3708 | 0.0000 | 14,210.3424 | 14,210.3424 | 1.0230 | 0.0000 | 14,235.9160 |
| 2024 | 237.2328 | 9.5610 | 15.0611 | 0.0243 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,352.4178 | 2,352.4178 | 0.7175 | 0.0000 | 2,370.3550 |
| Maximum | 237.2328 | 46.4651 | 47.3319 | 0.1455 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 14,630.3099 | 14,630.3099 | 1.9499 | 0.0000 | 14,657.2663 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|----------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2865 | 46.4651 | 31.6150 | 0.0642 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,221.4937 | 6,221.4937 | 1.9491 | 0.0000 | 6,270.2214 |
| 2022 | 5.7218 | 38.9024 | 47.3319 | 0.1455 | 9.8688 | 1.6366 | 10.7736 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 14,630.3099 | 14,630.3099 | 1.9499 | 0.0000 | 14,657.2663 |
| 2023 | 5.2705 | 26.4914 | 44.5936 | 0.1413 | 9.8688 | 0.7800 | 10.6488 | 2.6381 | 0.7328 | 3.3708 | 0.0000 | 14,210.3424 | 14,210.3424 | 1.0230 | 0.0000 | 14,235.9160 |
| 2024 | 237.2328 | 9.5610 | 15.0611 | 0.0243 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,352.4178 | 2,352.4178 | 0.7175 | 0.0000 | 2,370.3550 |
| Maximum | 237.2328 | 46.4651 | 47.3319 | 0.1455 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 14,630.3099 | 14,630.3099 | 1.9499 | 0.0000 | 14,657.2663 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| Total | 40.7912 | 67.7872 | 202.7424 | 0.6043 | 45.9592 | 2.4640 | 48.4231 | 12.2950 | 2.4399 | 14.7349 | 0.0000 | 74,422.3787 | 74,422.3787 | 2.8429 | 0.4832 | 74,637.4417 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| Total | 40.7912 | 67.7872 | 202.7424 | 0.6043 | 45.9592 | 2.4640 | 48.4231 | 12.2950 | 2.4399 | 14.7349 | 0.0000 | 74,422.3787 | 74,422.3787 | 2.8429 | 0.4832 | 74,637.4417 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0715 | 0.0489 | 0.5524 | 1.6100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 160.8377 | 160.8377 | 4.7300e-003 | | 160.9560 |
| Total | 0.2019 | 4.1943 | 1.5706 | 0.0133 | 0.4346 | 0.0141 | 0.4487 | 0.1176 | 0.0135 | 0.1311 | | 1,430.6932 | 1,430.6932 | 0.0955 | | 1,433.0812 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0715 | 0.0489 | 0.5524 | 1.6100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 160.8377 | 160.8377 | 4.7300e-003 | | 160.9560 |
| Total | 0.2019 | 4.1943 | 1.5706 | 0.0133 | 0.4346 | 0.0141 | 0.4487 | 0.1176 | 0.0135 | 0.1311 | | 1,430.6932 | 1,430.6932 | 0.0955 | | 1,433.0812 |

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0858 | 0.0587 | 0.6629 | 1.9400e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 193.0052 | 193.0052 | 5.6800e-003 | | 193.1472 |
| Total | 0.0858 | 0.0587 | 0.6629 | 1.9400e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 193.0052 | 193.0052 | 5.6800e-003 | | 193.1472 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0858 | 0.0587 | 0.6629 | 1.9400e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 193.0052 | 193.0052 | 5.6800e-003 | | 193.1472 |
| Total | 0.0858 | 0.0587 | 0.6629 | 1.9400e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 193.0052 | 193.0052 | 5.6800e-003 | | 193.1472 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0954 | 0.0652 | 0.7365 | 2.1500e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 214.4502 | 214.4502 | 6.3100e-003 | | 214.6080 |
| Total | 0.0954 | 0.0652 | 0.7365 | 2.1500e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 214.4502 | 214.4502 | 6.3100e-003 | | 214.6080 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0954 | 0.0652 | 0.7365 | 2.1500e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 214.4502 | 214.4502 | 6.3100e-003 | | 214.6080 |
| Total | 0.0954 | 0.0652 | 0.7365 | 2.1500e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 214.4502 | 214.4502 | 6.3100e-003 | | 214.6080 |

3.4 Grading - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0896 | 0.0589 | 0.6784 | 2.0800e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 206.9139 | 206.9139 | 5.7000e-003 | | 207.0563 |
| Total | 0.0896 | 0.0589 | 0.6784 | 2.0800e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 206.9139 | 206.9139 | 5.7000e-003 | | 207.0563 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0896 | 0.0589 | 0.6784 | 2.0800e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 206.9139 | 206.9139 | 5.7000e-003 | | 207.0563 |
| Total | 0.0896 | 0.0589 | 0.6784 | 2.0800e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 206.9139 | 206.9139 | 5.7000e-003 | | 207.0563 |

3.5 Building Construction - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.075 0 | 3,789.075 0 | 0.2381 | | 3,795.028 3 |
| Worker | 3.5872 | 2.3593 | 27.1680 | 0.0832 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,286.901 3 | 8,286.901 3 | 0.2282 | | 8,292.605 8 |
| Total | 4.0156 | 15.5266 | 30.9685 | 0.1186 | 9.8688 | 0.0957 | 9.9645 | 2.6381 | 0.0891 | 2.7271 | | 12,075.97 63 | 12,075.97 63 | 0.4663 | | 12,087.63 41 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|------|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.075 0 | 3,789.075 0 | 0.2381 | | | 3,795.028 3 |
| Worker | 3.5872 | 2.3593 | 27.1680 | 0.0832 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,286.901 3 | 8,286.901 3 | 0.2282 | | | 8,292.605 8 |
| Total | 4.0156 | 15.5266 | 30.9685 | 0.1186 | 9.8688 | 0.0957 | 9.9645 | 2.6381 | 0.0891 | 2.7271 | | 12,075.97 63 | 12,075.97 63 | 0.4663 | | | 12,087.63 41 |

3.5 Building Construction - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|------|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.9156 | 0.0122 | 0.9277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.400 7 | 3,671.400 7 | 0.2096 | | | 3,676.641 7 |
| Worker | 3.3795 | 2.1338 | 24.9725 | 0.0801 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 7,983.731 8 | 7,983.731 8 | 0.2055 | | | 7,988.868 3 |
| Total | 3.6978 | 12.1065 | 28.3496 | 0.1144 | 9.8688 | 0.0803 | 9.9491 | 2.6381 | 0.0743 | 2.7124 | | 11,655.13 25 | 11,655.13 25 | 0.4151 | | | 11,665.50 99 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------------|-------------------------|---------------|-----|-------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.9156 | 0.0122 | 0.9277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.400 7 | 3,671.400 7 | 0.2096 | | 3,676.641 7 |
| Worker | 3.3795 | 2.1338 | 24.9725 | 0.0801 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 7,983.731 8 | 7,983.731 8 | 0.2055 | | 7,988.868 3 |
| Total | 3.6978 | 12.1065 | 28.3496 | 0.1144 | 9.8688 | 0.0803 | 9.9491 | 2.6381 | 0.0743 | 2.7124 | | 11,655.13 25 | 11,655.13 25 | 0.4151 | | 11,665.50 99 |

3.6 Paving - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0633 | 0.0400 | 0.4677 | 1.5000e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 149.5081 | 149.5081 | 3.8500e-003 | | 149.6043 |
| Total | 0.0633 | 0.0400 | 0.4677 | 1.5000e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 149.5081 | 149.5081 | 3.8500e-003 | | 149.6043 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0633 | 0.0400 | 0.4677 | 1.5000e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 149.5081 | 149.5081 | 3.8500e-003 | | 149.6043 |
| Total | 0.0633 | 0.0400 | 0.4677 | 1.5000e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 149.5081 | 149.5081 | 3.8500e-003 | | 149.6043 |

3.6 Paving - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0601 | 0.0364 | 0.4354 | 1.4500e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 144.8706 | 144.8706 | 3.5300e-003 | | 144.9587 |
| Total | 0.0601 | 0.0364 | 0.4354 | 1.4500e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 144.8706 | 144.8706 | 3.5300e-003 | | 144.9587 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0601 | 0.0364 | 0.4354 | 1.4500e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 144.8706 | 144.8706 | 3.5300e-003 | | 144.9587 |
| Total | 0.0601 | 0.0364 | 0.4354 | 1.4500e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 144.8706 | 144.8706 | 3.5300e-003 | | 144.9587 |

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.6406 | 0.3886 | 4.6439 | 0.0155 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,545.2860 | 1,545.2860 | 0.0376 | | 1,546.2262 |
| Total | 0.6406 | 0.3886 | 4.6439 | 0.0155 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,545.2860 | 1,545.2860 | 0.0376 | | 1,546.2262 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.6406 | 0.3886 | 4.6439 | 0.0155 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,545.2860 | 1,545.2860 | 0.0376 | | 1,546.2262 |
| Total | 0.6406 | 0.3886 | 4.6439 | 0.0155 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,545.2860 | 1,545.2860 | 0.0376 | | 1,546.2262 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|---------|----------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------------|-----------------|--------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.80 05 | 47,917.80 05 | 2.1953 | | 47,972.68 39 |
| Unmitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.80 05 | 47,917.80 05 | 2.1953 | | 47,972.68 39 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down) | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|----------------|--------|--------|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.983 2 | 8,355.983 2 | 0.1602 | 0.1532 | 8,405.638 7 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.983 2 | 8,355.983 2 | 0.1602 | 0.1532 | 8,405.638 7 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4769.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35.7843 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7599 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
| Climate Zone | 9 | | | Operational Year | 2028 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

| Table Name | Column Name | Default Value | New Value |
|-----------------|-------------------|---------------|-----------|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | | | |
|-----------------|--------------------|--------|-------|
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

2.1 Overall Construction

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|-------------|--------|------------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1704 | 1.8234 | 1.1577 | 2.3800e-003 | 0.4141 | 0.0817 | 0.4958 | 0.1788 | 0.0754 | 0.2542 | 0.0000 | 210.7654 | 210.7654 | 0.0600 | 0.0000 | 212.2661 |
| 2022 | 0.5865 | 4.0240 | 5.1546 | 0.0155 | 0.9509 | 0.1175 | 1.0683 | 0.2518 | 0.1103 | 0.3621 | 0.0000 | 1,418.6554 | 1,418.6554 | 0.1215 | 0.0000 | 1,421.6925 |
| 2023 | 0.5190 | 3.2850 | 4.7678 | 0.0147 | 0.8497 | 0.0971 | 0.9468 | 0.2283 | 0.0912 | 0.3195 | 0.0000 | 1,342.4412 | 1,342.4412 | 0.1115 | 0.0000 | 1,345.2291 |
| 2024 | 4.1592 | 0.1313 | 0.2557 | 5.0000e-004 | 0.0221 | 6.3900e-003 | 0.0285 | 5.8700e-003 | 5.9700e-003 | 0.0118 | 0.0000 | 44.6355 | 44.6355 | 7.8300e-003 | 0.0000 | 44.8311 |
| Maximum | 4.1592 | 4.0240 | 5.1546 | 0.0155 | 0.9509 | 0.1175 | 1.0683 | 0.2518 | 0.1103 | 0.3621 | 0.0000 | 1,418.6554 | 1,418.6554 | 0.1215 | 0.0000 | 1,421.6925 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

2.1 Overall Construction

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|-------------|--------|------------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1704 | 1.8234 | 1.1577 | 2.3800e-003 | 0.4141 | 0.0817 | 0.4958 | 0.1788 | 0.0754 | 0.2542 | 0.0000 | 210.7651 | 210.7651 | 0.0600 | 0.0000 | 212.2658 |
| 2022 | 0.5865 | 4.0240 | 5.1546 | 0.0155 | 0.9509 | 0.1175 | 1.0683 | 0.2518 | 0.1103 | 0.3621 | 0.0000 | 1,418.6550 | 1,418.6550 | 0.1215 | 0.0000 | 1,421.6921 |
| 2023 | 0.5190 | 3.2850 | 4.7678 | 0.0147 | 0.8497 | 0.0971 | 0.9468 | 0.2283 | 0.0912 | 0.3195 | 0.0000 | 1,342.4409 | 1,342.4409 | 0.1115 | 0.0000 | 1,345.2287 |
| 2024 | 4.1592 | 0.1313 | 0.2557 | 5.0000e-004 | 0.0221 | 6.3900e-003 | 0.0285 | 5.8700e-003 | 5.9700e-003 | 0.0118 | 0.0000 | 44.6354 | 44.6354 | 7.8300e-003 | 0.0000 | 44.8311 |
| Maximum | 4.1592 | 4.0240 | 5.1546 | 0.0155 | 0.9509 | 0.1175 | 1.0683 | 0.2518 | 0.1103 | 0.3621 | 0.0000 | 1,418.6550 | 1,418.6550 | 0.1215 | 0.0000 | 1,421.6921 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|------------|--|--|
| 1 | 9-1-2021 | 11-30-2021 | 1.4091 | 1.4091 |
| 2 | 12-1-2021 | 2-28-2022 | 1.3329 | 1.3329 |
| 3 | 3-1-2022 | 5-31-2022 | 1.1499 | 1.1499 |
| 4 | 6-1-2022 | 8-31-2022 | 1.1457 | 1.1457 |
| 5 | 9-1-2022 | 11-30-2022 | 1.1415 | 1.1415 |
| 6 | 12-1-2022 | 2-28-2023 | 1.0278 | 1.0278 |
| 7 | 3-1-2023 | 5-31-2023 | 0.9868 | 0.9868 |
| 8 | 6-1-2023 | 8-31-2023 | 0.9831 | 0.9831 |

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| | | | | |
|----|-----------|------------|--------|--------|
| 9 | 9-1-2023 | 11-30-2023 | 0.9798 | 0.9798 |
| 10 | 12-1-2023 | 2-29-2024 | 2.8757 | 2.8757 |
| 11 | 3-1-2024 | 5-31-2024 | 1.6188 | 1.6188 |
| | | Highest | 2.8757 | 2.8757 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|-----------------|--------------------|--------------------|----------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Total | 6.8692 | 9.5223 | 30.3407 | 0.0914 | 7.7979 | 0.2260 | 8.0240 | 2.0895 | 0.2219 | 2.3114 | 236.9712 | 12,294.1807 | 12,531.1519 | 15.7904 | 0.1260 | 12,963.4751 |

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2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|-----------------|--------------------|--------------------|----------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Total | 6.8692 | 9.5223 | 30.3407 | 0.0914 | 7.7979 | 0.2260 | 8.0240 | 2.0895 | 0.2219 | 2.3114 | 236.9712 | 12,294.1807 | 12,531.1519 | 15.7904 | 0.1260 | 12,963.4751 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

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| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

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| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0012 | 51.0012 | 0.0144 | 0.0000 | 51.3601 |
| Total | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | 0.0496 | 0.0233 | 0.0729 | 7.5100e-003 | 0.0216 | 0.0291 | 0.0000 | 51.0012 | 51.0012 | 0.0144 | 0.0000 | 51.3601 |

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.2000e-004 | 5.3000e-004 | 6.0900e-003 | 2.0000e-005 | 1.6800e-003 | 1.0000e-005 | 1.6900e-003 | 4.5000e-004 | 1.0000e-005 | 4.6000e-004 | 0.0000 | 1.5281 | 1.5281 | 5.0000e-005 | 0.0000 | 1.5293 |
| Total | 2.6500e-003 | 0.0639 | 0.0209 | 2.0000e-004 | 5.6200e-003 | 2.0000e-004 | 5.8200e-003 | 1.5300e-003 | 1.9000e-004 | 1.7200e-003 | 0.0000 | 18.9847 | 18.9847 | 1.2600e-003 | 0.0000 | 19.0161 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0011 | 51.0011 | 0.0144 | 0.0000 | 51.3600 |
| Total | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | 0.0496 | 0.0233 | 0.0729 | 7.5100e-003 | 0.0216 | 0.0291 | 0.0000 | 51.0011 | 51.0011 | 0.0144 | 0.0000 | 51.3600 |

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3.2 Demolition - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.2000e-004 | 5.3000e-004 | 6.0900e-003 | 2.0000e-005 | 1.6800e-003 | 1.0000e-005 | 1.6900e-003 | 4.5000e-004 | 1.0000e-005 | 4.6000e-004 | 0.0000 | 1.5281 | 1.5281 | 5.0000e-005 | 0.0000 | 1.5293 |
| Total | 2.6500e-003 | 0.0639 | 0.0209 | 2.0000e-004 | 5.6200e-003 | 2.0000e-004 | 5.8200e-003 | 1.5300e-003 | 1.9000e-004 | 1.7200e-003 | 0.0000 | 18.9847 | 18.9847 | 1.2600e-003 | 0.0000 | 19.0161 |

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7061 |
| Total | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | 0.1807 | 0.0204 | 0.2011 | 0.0993 | 0.0188 | 0.1181 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7061 |

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.8000e-004 | 4.3000e-004 | 4.8700e-003 | 1.0000e-005 | 1.3400e-003 | 1.0000e-005 | 1.3500e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.2225 | 1.2225 | 4.0000e-005 | 0.0000 | 1.2234 |
| Total | 5.8000e-004 | 4.3000e-004 | 4.8700e-003 | 1.0000e-005 | 1.3400e-003 | 1.0000e-005 | 1.3500e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.2225 | 1.2225 | 4.0000e-005 | 0.0000 | 1.2234 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7060 |
| Total | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | 0.1807 | 0.0204 | 0.2011 | 0.0993 | 0.0188 | 0.1181 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7060 |

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.8000e-004 | 4.3000e-004 | 4.8700e-003 | 1.0000e-005 | 1.3400e-003 | 1.0000e-005 | 1.3500e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.2225 | 1.2225 | 4.0000e-005 | 0.0000 | 1.2234 |
| Total | 5.8000e-004 | 4.3000e-004 | 4.8700e-003 | 1.0000e-005 | 1.3400e-003 | 1.0000e-005 | 1.3500e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.2225 | 1.2225 | 4.0000e-005 | 0.0000 | 1.2234 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5405 | 103.5405 | 0.0335 | 0.0000 | 104.3776 |
| Total | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | 0.1741 | 0.0377 | 0.2118 | 0.0693 | 0.0347 | 0.1040 | 0.0000 | 103.5405 | 103.5405 | 0.0335 | 0.0000 | 104.3776 |

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3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2200e-003 | 9.0000e-004 | 0.0103 | 3.0000e-005 | 2.8300e-003 | 2.0000e-005 | 2.8600e-003 | 7.5000e-004 | 2.0000e-005 | 7.8000e-004 | 0.0000 | 2.5808 | 2.5808 | 8.0000e-005 | 0.0000 | 2.5828 |
| Total | 1.2200e-003 | 9.0000e-004 | 0.0103 | 3.0000e-005 | 2.8300e-003 | 2.0000e-005 | 2.8600e-003 | 7.5000e-004 | 2.0000e-005 | 7.8000e-004 | 0.0000 | 2.5808 | 2.5808 | 8.0000e-005 | 0.0000 | 2.5828 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5403 | 103.5403 | 0.0335 | 0.0000 | 104.3775 |
| Total | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | 0.1741 | 0.0377 | 0.2118 | 0.0693 | 0.0347 | 0.1040 | 0.0000 | 103.5403 | 103.5403 | 0.0335 | 0.0000 | 104.3775 |

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3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2200e-003 | 9.0000e-004 | 0.0103 | 3.0000e-005 | 2.8300e-003 | 2.0000e-005 | 2.8600e-003 | 7.5000e-004 | 2.0000e-005 | 7.8000e-004 | 0.0000 | 2.5808 | 2.5808 | 8.0000e-005 | 0.0000 | 2.5828 |
| Total | 1.2200e-003 | 9.0000e-004 | 0.0103 | 3.0000e-005 | 2.8300e-003 | 2.0000e-005 | 2.8600e-003 | 7.5000e-004 | 2.0000e-005 | 7.8000e-004 | 0.0000 | 2.5808 | 2.5808 | 8.0000e-005 | 0.0000 | 2.5828 |

3.4 Grading - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| Total | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | 0.0807 | 5.7200e-003 | 0.0865 | 0.0180 | 5.2600e-003 | 0.0233 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |

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3.4 Grading - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 5.3000e-004 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 0.4587 | 0.4587 | 1.0000e-005 | 0.0000 | 0.4590 |
| Total | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 5.3000e-004 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 0.4587 | 0.4587 | 1.0000e-005 | 0.0000 | 0.4590 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| Total | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | 0.0807 | 5.7200e-003 | 0.0865 | 0.0180 | 5.2600e-003 | 0.0233 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

3.4 Grading - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 5.3000e-004 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 0.4587 | 0.4587 | 1.0000e-005 | 0.0000 | 0.4590 |
| Total | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 5.3000e-004 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 0.4587 | 0.4587 | 1.0000e-005 | 0.0000 | 0.4590 |

3.5 Building Construction - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1324 | 293.1324 | 0.0702 | 0.0000 | 294.8881 |
| Total | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1324 | 293.1324 | 0.0702 | 0.0000 | 294.8881 |

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3.5 Building Construction - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.3051 | 0.2164 | 2.5233 | 7.3500e-003 | 0.7557 | 6.2300e-003 | 0.7619 | 0.2007 | 5.7400e-003 | 0.2065 | 0.0000 | 663.9936 | 663.9936 | 0.0187 | 0.0000 | 664.4604 |
| Total | 0.3578 | 1.9125 | 2.9812 | 0.0119 | 0.8696 | 9.4100e-003 | 0.8790 | 0.2336 | 8.7800e-003 | 0.2424 | 0.0000 | 1,105.9771 | 1,105.9771 | 0.0451 | 0.0000 | 1,107.1039 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1321 | 293.1321 | 0.0702 | 0.0000 | 294.8877 |
| Total | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1321 | 293.1321 | 0.0702 | 0.0000 | 294.8877 |

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3.5 Building Construction - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.3051 | 0.2164 | 2.5233 | 7.3500e-003 | 0.7557 | 6.2300e-003 | 0.7619 | 0.2007 | 5.7400e-003 | 0.2065 | 0.0000 | 663.9936 | 663.9936 | 0.0187 | 0.0000 | 664.4604 |
| Total | 0.3578 | 1.9125 | 2.9812 | 0.0119 | 0.8696 | 9.4100e-003 | 0.8790 | 0.2336 | 8.7800e-003 | 0.2424 | 0.0000 | 1,105.9771 | 1,105.9771 | 0.0451 | 0.0000 | 1,107.1039 |

3.5 Building Construction - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2789 | 286.2789 | 0.0681 | 0.0000 | 287.9814 |
| Total | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2789 | 286.2789 | 0.0681 | 0.0000 | 287.9814 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.2795 | 0.1910 | 2.2635 | 6.9100e-003 | 0.7377 | 5.9100e-003 | 0.7436 | 0.1960 | 5.4500e-003 | 0.2014 | 0.0000 | 624.5363 | 624.5363 | 0.0164 | 0.0000 | 624.9466 |
| Total | 0.3177 | 1.4420 | 2.6646 | 0.0112 | 0.8490 | 7.3700e-003 | 0.8564 | 0.2281 | 6.8500e-003 | 0.2349 | 0.0000 | 1,042.5294 | 1,042.5294 | 0.0392 | 0.0000 | 1,043.5090 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2785 | 286.2785 | 0.0681 | 0.0000 | 287.9811 |
| Total | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2785 | 286.2785 | 0.0681 | 0.0000 | 287.9811 |

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3.5 Building Construction - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.2795 | 0.1910 | 2.2635 | 6.9100e-003 | 0.7377 | 5.9100e-003 | 0.7436 | 0.1960 | 5.4500e-003 | 0.2014 | 0.0000 | 624.5363 | 624.5363 | 0.0164 | 0.0000 | 624.9466 |
| Total | 0.3177 | 1.4420 | 2.6646 | 0.0112 | 0.8490 | 7.3700e-003 | 0.8564 | 0.2281 | 6.8500e-003 | 0.2349 | 0.0000 | 1,042.5294 | 1,042.5294 | 0.0392 | 0.0000 | 1,043.5090 |

3.6 Paving - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |

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3.6 Paving - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 1.9000e-004 | 2.2300e-003 | 1.0000e-005 | 7.3000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 1.0000e-005 | 2.0000e-004 | 0.0000 | 0.6156 | 0.6156 | 2.0000e-005 | 0.0000 | 0.6160 |
| Total | 2.8000e-004 | 1.9000e-004 | 2.2300e-003 | 1.0000e-005 | 7.3000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 1.0000e-005 | 2.0000e-004 | 0.0000 | 0.6156 | 0.6156 | 2.0000e-005 | 0.0000 | 0.6160 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |

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3.6 Paving - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 1.9000e-004 | 2.2300e-003 | 1.0000e-005 | 7.3000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 1.0000e-005 | 2.0000e-004 | 0.0000 | 0.6156 | 0.6156 | 2.0000e-005 | 0.0000 | 0.6160 |
| Total | 2.8000e-004 | 1.9000e-004 | 2.2300e-003 | 1.0000e-005 | 7.3000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 1.0000e-005 | 2.0000e-004 | 0.0000 | 0.6156 | 0.6156 | 2.0000e-005 | 0.0000 | 0.6160 |

3.6 Paving - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |

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3.6 Paving - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.4000e-004 | 2.9000e-004 | 3.5100e-003 | 1.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.0094 | 1.0094 | 3.0000e-005 | 0.0000 | 1.0100 |
| Total | 4.4000e-004 | 2.9000e-004 | 3.5100e-003 | 1.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.0094 | 1.0094 | 3.0000e-005 | 0.0000 | 1.0100 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |

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3.6 Paving - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.4000e-004 | 2.9000e-004 | 3.5100e-003 | 1.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.0094 | 1.0094 | 3.0000e-005 | 0.0000 | 1.0100 |
| Total | 4.4000e-004 | 2.9000e-004 | 3.5100e-003 | 1.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.0094 | 1.0094 | 3.0000e-005 | 0.0000 | 1.0100 |

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| Total | 4.1404 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.4800e-003 | 4.9300e-003 | 0.0596 | 1.9000e-004 | 0.0209 | 1.6000e-004 | 0.0211 | 5.5500e-003 | 1.5000e-004 | 5.7000e-003 | 0.0000 | 17.1287 | 17.1287 | 4.3000e-004 | 0.0000 | 17.1394 |
| Total | 7.4800e-003 | 4.9300e-003 | 0.0596 | 1.9000e-004 | 0.0209 | 1.6000e-004 | 0.0211 | 5.5500e-003 | 1.5000e-004 | 5.7000e-003 | 0.0000 | 17.1287 | 17.1287 | 4.3000e-004 | 0.0000 | 17.1394 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| Total | 4.1404 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |

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3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.4800e-003 | 4.9300e-003 | 0.0596 | 1.9000e-004 | 0.0209 | 1.6000e-004 | 0.0211 | 5.5500e-003 | 1.5000e-004 | 5.7000e-003 | 0.0000 | 17.1287 | 17.1287 | 4.3000e-004 | 0.0000 | 17.1394 |
| Total | 7.4800e-003 | 4.9300e-003 | 0.0596 | 1.9000e-004 | 0.0209 | 1.6000e-004 | 0.0211 | 5.5500e-003 | 1.5000e-004 | 5.7000e-003 | 0.0000 | 17.1287 | 17.1287 | 4.3000e-004 | 0.0000 | 17.1394 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Unmitigated | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down) | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| NaturalGas Mitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |
| NaturalGas Unmitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |

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5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.9036 | 92.9036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| Total | | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4268 | 1,383.4268 | 0.0265 | 0.0254 | 1,391.6478 |

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5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.9036 | 92.9036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| Total | | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4268 | 1,383.4268 | 0.0265 | 0.0254 | 1,391.6478 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.94697e+006 | 1,257.5879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| Total | | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.94697e+006 | 1,257.5879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| Total | | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|-------------|----------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Unmitigated | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|----------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1166 | 204.1166 | 3.9100e-003 | 3.7400e-003 | 205.3295 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| Total | 5.1437 | 0.2950 | 10.3804 | 1.6600e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|----------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1166 | 204.1166 | 3.9100e-003 | 3.7400e-003 | 205.3295 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| Total | 5.1437 | 0.2950 | 10.3804 | 1.6600e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|----------|
| Category | MT/yr | | | |
| Mitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Unmitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|--------------------|-----------------|---------------|---------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.8200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| Total | | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|--------------------|-----------------|---------------|---------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.8200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| Total | | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|---------|--------|----------|
| | MT/yr | | | |
| Mitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Unmitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Unmitigated

| Land Use | Waste Disposed tons | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|------------------------|-----------------|----------------|---------------|-----------------|
| | | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| Total | | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| Total | | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
| Climate Zone | 9 | | | Operational Year | 2028 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

| Table Name | Column Name | Default Value | New Value |
|-----------------|-------------------|---------------|-----------|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | | | |
|-----------------|--------------------|--------|-------|
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|-----------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2561 | 46.4415 | 31.4494 | 0.0636 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,163.4166 | 6,163.4166 | 1.9475 | 0.0000 | 6,212.1039 |
| 2022 | 4.5441 | 38.8811 | 40.8776 | 0.1240 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,493.4403 | 12,493.4403 | 1.9485 | 0.0000 | 12,518.5707 |
| 2023 | 4.1534 | 25.7658 | 38.7457 | 0.1206 | 7.0088 | 0.7592 | 7.7679 | 1.8799 | 0.7136 | 2.5935 | 0.0000 | 12,150.4890 | 12,150.4890 | 0.9589 | 0.0000 | 12,174.4615 |
| 2024 | 237.0219 | 9.5478 | 14.9642 | 0.0239 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,313.1808 | 2,313.1808 | 0.7166 | 0.0000 | 2,331.0956 |
| Maximum | 237.0219 | 46.4415 | 40.8776 | 0.1240 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 12,493.4403 | 12,493.4403 | 1.9485 | 0.0000 | 12,518.5707 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|----------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2561 | 46.4415 | 31.4494 | 0.0636 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,163.4166 | 6,163.4166 | 1.9475 | 0.0000 | 6,212.1039 |
| 2022 | 4.5441 | 38.8811 | 40.8776 | 0.1240 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,493.4403 | 12,493.4403 | 1.9485 | 0.0000 | 12,518.5707 |
| 2023 | 4.1534 | 25.7658 | 38.7457 | 0.1206 | 7.0088 | 0.7592 | 7.7679 | 1.8799 | 0.7136 | 2.5935 | 0.0000 | 12,150.4890 | 12,150.4890 | 0.9589 | 0.0000 | 12,174.4615 |
| 2024 | 237.0219 | 9.5478 | 14.9642 | 0.0239 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,313.1808 | 2,313.1808 | 0.7166 | 0.0000 | 2,331.0955 |
| Maximum | 237.0219 | 46.4415 | 40.8776 | 0.1240 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 12,493.4403 | 12,493.4403 | 1.9485 | 0.0000 | 12,518.5707 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| Total | 41.1168 | 67.2262 | 207.5497 | 0.6278 | 45.9592 | 2.4626 | 48.4217 | 12.2950 | 2.4385 | 14.7336 | 0.0000 | 76,811.1816 | 76,811.1816 | 2.8282 | 0.4832 | 77,025.8786 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| Total | 41.1168 | 67.2262 | 207.5497 | 0.6278 | 45.9592 | 2.4626 | 48.4217 | 12.2950 | 2.4385 | 14.7336 | 0.0000 | 76,811.1816 | 76,811.1816 | 2.8282 | 0.4832 | 77,025.8786 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.944 9 | 3,747.944 9 | 1.0549 | | 3,774.317 4 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | | 3,747.944 9 | 3,747.944 9 | 1.0549 | | 3,774.317 4 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0487 | 0.0313 | 0.4282 | 1.1800e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 117.2799 | 117.2799 | 3.5200e-003 | | 117.3678 |
| Total | 0.1760 | 4.1265 | 1.3884 | 0.0131 | 0.3810 | 0.0135 | 0.3946 | 0.1034 | 0.0129 | 0.1163 | | 1,409.5212 | 1,409.5212 | 0.0912 | | 1,411.8015 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0487 | 0.0313 | 0.4282 | 1.1800e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 117.2799 | 117.2799 | 3.5200e-003 | | 117.3678 |
| Total | 0.1760 | 4.1265 | 1.3884 | 0.0131 | 0.3810 | 0.0135 | 0.3946 | 0.1034 | 0.0129 | 0.1163 | | 1,409.5212 | 1,409.5212 | 0.0912 | | 1,411.8015 |

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0584 | 0.0375 | 0.5139 | 1.4100e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 140.7359 | 140.7359 | 4.2200e-003 | | 140.8414 |
| Total | 0.0584 | 0.0375 | 0.5139 | 1.4100e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 140.7359 | 140.7359 | 4.2200e-003 | | 140.8414 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0584 | 0.0375 | 0.5139 | 1.4100e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 140.7359 | 140.7359 | 4.2200e-003 | | 140.8414 |
| Total | 0.0584 | 0.0375 | 0.5139 | 1.4100e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 140.7359 | 140.7359 | 4.2200e-003 | | 140.8414 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0649 | 0.0417 | 0.5710 | 1.5700e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 156.3732 | 156.3732 | 4.6900e-003 | | 156.4904 |
| Total | 0.0649 | 0.0417 | 0.5710 | 1.5700e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 156.3732 | 156.3732 | 4.6900e-003 | | 156.4904 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0649 | 0.0417 | 0.5710 | 1.5700e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 156.3732 | 156.3732 | 4.6900e-003 | | 156.4904 |
| Total | 0.0649 | 0.0417 | 0.5710 | 1.5700e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 156.3732 | 156.3732 | 4.6900e-003 | | 156.4904 |

3.4 Grading - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0607 | 0.0376 | 0.5263 | 1.5100e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 150.8754 | 150.8754 | 4.2400e-003 | | 150.9813 |
| Total | 0.0607 | 0.0376 | 0.5263 | 1.5100e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 150.8754 | 150.8754 | 4.2400e-003 | | 150.9813 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0607 | 0.0376 | 0.5263 | 1.5100e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 150.8754 | 150.8754 | 4.2400e-003 | | 150.9813 |
| Total | 0.0607 | 0.0376 | 0.5263 | 1.5100e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 150.8754 | 150.8754 | 4.2400e-003 | | 150.9813 |

3.5 Building Construction - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.548 2 | 3,896.548 2 | 0.2236 | | 3,902.138 4 |
| Worker | 2.4299 | 1.5074 | 21.0801 | 0.0607 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 6,042.558 5 | 6,042.558 5 | 0.1697 | | 6,046.800 0 |
| Total | 2.8378 | 14.7106 | 24.5142 | 0.0971 | 7.0087 | 0.0741 | 7.0828 | 1.8799 | 0.0691 | 1.9490 | | 9,939.106 7 | 9,939.106 7 | 0.3933 | | 9,948.938 4 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.548 2 | 3,896.548 2 | 0.2236 | | 3,902.138 4 |
| Worker | 2.4299 | 1.5074 | 21.0801 | 0.0607 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 6,042.558 5 | 6,042.558 5 | 0.1697 | | 6,046.800 0 |
| Total | 2.8378 | 14.7106 | 24.5142 | 0.0971 | 7.0087 | 0.0741 | 7.0828 | 1.8799 | 0.0691 | 1.9490 | | 9,939.106 7 | 9,939.106 7 | 0.3933 | | 9,948.938 4 |

3.5 Building Construction - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.876 2 | 3,773.876 2 | 0.1982 | | 3,778.830 0 |
| Worker | 2.2780 | 1.3628 | 19.4002 | 0.0584 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,821.402 8 | 5,821.402 8 | 0.1529 | | 5,825.225 4 |
| Total | 2.5807 | 11.3809 | 22.5017 | 0.0936 | 7.0088 | 0.0595 | 7.0682 | 1.8799 | 0.0552 | 1.9350 | | 9,595.279 0 | 9,595.279 0 | 0.3511 | | 9,604.055 4 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.876 2 | 3,773.876 2 | 0.1982 | | 3,778.830 0 |
| Worker | 2.2780 | 1.3628 | 19.4002 | 0.0584 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,821.402 8 | 5,821.402 8 | 0.1529 | | 5,825.225 4 |
| Total | 2.5807 | 11.3809 | 22.5017 | 0.0936 | 7.0088 | 0.0595 | 7.0682 | 1.8799 | 0.0552 | 1.9350 | | 9,595.279 0 | 9,595.279 0 | 0.3511 | | 9,604.055 4 |

3.6 Paving - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0427 | 0.0255 | 0.3633 | 1.0900e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 109.0150 | 109.0150 | 2.8600e-003 | | 109.0866 |
| Total | 0.0427 | 0.0255 | 0.3633 | 1.0900e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 109.0150 | 109.0150 | 2.8600e-003 | | 109.0866 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0427 | 0.0255 | 0.3633 | 1.0900e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 109.0150 | 109.0150 | 2.8600e-003 | | 109.0866 |
| Total | 0.0427 | 0.0255 | 0.3633 | 1.0900e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 109.0150 | 109.0150 | 2.8600e-003 | | 109.0866 |

3.6 Paving - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0403 | 0.0233 | 0.3384 | 1.0600e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 105.6336 | 105.6336 | 2.6300e-003 | | 105.6992 |
| Total | 0.0403 | 0.0233 | 0.3384 | 1.0600e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 105.6336 | 105.6336 | 2.6300e-003 | | 105.6992 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0403 | 0.0233 | 0.3384 | 1.0600e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 105.6336 | 105.6336 | 2.6300e-003 | | 105.6992 |
| Total | 0.0403 | 0.0233 | 0.3384 | 1.0600e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 105.6336 | 105.6336 | 2.6300e-003 | | 105.6992 |

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4296 | 0.2481 | 3.6098 | 0.0113 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,126.7583 | 1,126.7583 | 0.0280 | | 1,127.4583 |
| Total | 0.4296 | 0.2481 | 3.6098 | 0.0113 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,126.7583 | 1,126.7583 | 0.0280 | | 1,127.4583 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4296 | 0.2481 | 3.6098 | 0.0113 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,126.7583 | 1,126.7583 | 0.0280 | | 1,127.4583 |
| Total | 0.4296 | 0.2481 | 3.6098 | 0.0113 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,126.7583 | 1,126.7583 | 0.0280 | | 1,127.4583 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|---------|----------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------------|-----------------|--------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.60 34 | 50,306.60 34 | 2.1807 | | 50,361.12 08 |
| Unmitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.60 34 | 50,306.60 34 | 2.1807 | | 50,361.12 08 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down) | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4769.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35.7843 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7599 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
| Climate Zone | 9 | | | Operational Year | 2028 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

| Table Name | Column Name | Default Value | New Value |
|-----------------|-------------------|---------------|-----------|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | | | |
|-----------------|--------------------|--------|-------|
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|-----------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2621 | 46.4460 | 31.4068 | 0.0635 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,154.3377 | 6,154.3377 | 1.9472 | 0.0000 | 6,203.0186 |
| 2022 | 4.7966 | 38.8851 | 39.6338 | 0.1195 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,035.3440 | 12,035.3440 | 1.9482 | 0.0000 | 12,060.6013 |
| 2023 | 4.3939 | 25.8648 | 37.5031 | 0.1162 | 7.0088 | 0.7598 | 7.7685 | 1.8799 | 0.7142 | 2.5940 | 0.0000 | 11,710.4080 | 11,710.4080 | 0.9617 | 0.0000 | 11,734.4497 |
| 2024 | 237.0656 | 9.5503 | 14.9372 | 0.0238 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,307.0517 | 2,307.0517 | 0.7164 | 0.0000 | 2,324.9627 |
| Maximum | 237.0656 | 46.4460 | 39.6338 | 0.1195 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 12,035.3440 | 12,035.3440 | 1.9482 | 0.0000 | 12,060.6013 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|----------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2621 | 46.4460 | 31.4068 | 0.0635 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,154.3377 | 6,154.3377 | 1.9472 | 0.0000 | 6,203.0186 |
| 2022 | 4.7966 | 38.8851 | 39.6338 | 0.1195 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,035.3440 | 12,035.3440 | 1.9482 | 0.0000 | 12,060.6013 |
| 2023 | 4.3939 | 25.8648 | 37.5031 | 0.1162 | 7.0088 | 0.7598 | 7.7685 | 1.8799 | 0.7142 | 2.5940 | 0.0000 | 11,710.4080 | 11,710.4080 | 0.9617 | 0.0000 | 11,734.4497 |
| 2024 | 237.0656 | 9.5503 | 14.9372 | 0.0238 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,307.0517 | 2,307.0517 | 0.7164 | 0.0000 | 2,324.9627 |
| Maximum | 237.0656 | 46.4460 | 39.6338 | 0.1195 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 12,035.3440 | 12,035.3440 | 1.9482 | 0.0000 | 12,060.6013 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| Total | 40.7912 | 67.7872 | 202.7424 | 0.6043 | 45.9592 | 2.4640 | 48.4231 | 12.2950 | 2.4399 | 14.7349 | 0.0000 | 74,422.3787 | 74,422.3787 | 2.8429 | 0.4832 | 74,637.4417 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|----------------|----------------|-----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| Total | 40.7912 | 67.7872 | 202.7424 | 0.6043 | 45.9592 | 2.4640 | 48.4231 | 12.2950 | 2.4399 | 14.7349 | 0.0000 | 74,422.3787 | 74,422.3787 | 2.8429 | 0.4832 | 74,637.4417 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0532 | 0.0346 | 0.3963 | 1.1100e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 110.4707 | 110.4707 | 3.3300e-003 | | 110.5539 |
| Total | 0.1835 | 4.1800 | 1.4144 | 0.0128 | 0.3810 | 0.0137 | 0.3948 | 0.1034 | 0.0131 | 0.1165 | | 1,380.3262 | 1,380.3262 | 0.0941 | | 1,382.6791 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| Total | 3.1651 | 31.4407 | 21.5650 | 0.0388 | 3.3074 | 1.5513 | 4.8588 | 0.5008 | 1.4411 | 1.9419 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0532 | 0.0346 | 0.3963 | 1.1100e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 110.4707 | 110.4707 | 3.3300e-003 | | 110.5539 |
| Total | 0.1835 | 4.1800 | 1.4144 | 0.0128 | 0.3810 | 0.0137 | 0.3948 | 0.1034 | 0.0131 | 0.1165 | | 1,380.3262 | 1,380.3262 | 0.0941 | | 1,382.6791 |

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0638 | 0.0415 | 0.4755 | 1.3300e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 132.5649 | 132.5649 | 3.9900e-003 | | 132.6646 |
| Total | 0.0638 | 0.0415 | 0.4755 | 1.3300e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 132.5649 | 132.5649 | 3.9900e-003 | | 132.6646 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0638 | 0.0415 | 0.4755 | 1.3300e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 132.5649 | 132.5649 | 3.9900e-003 | | 132.6646 |
| Total | 0.0638 | 0.0415 | 0.4755 | 1.3300e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 132.5649 | 132.5649 | 3.9900e-003 | | 132.6646 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0709 | 0.0462 | 0.5284 | 1.4800e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 147.2943 | 147.2943 | 4.4300e-003 | | 147.4051 |
| Total | 0.0709 | 0.0462 | 0.5284 | 1.4800e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 147.2943 | 147.2943 | 4.4300e-003 | | 147.4051 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0709 | 0.0462 | 0.5284 | 1.4800e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 147.2943 | 147.2943 | 4.4300e-003 | | 147.4051 |
| Total | 0.0709 | 0.0462 | 0.5284 | 1.4800e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 147.2943 | 147.2943 | 4.4300e-003 | | 147.4051 |

3.4 Grading - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0665 | 0.0416 | 0.4861 | 1.4300e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 142.1207 | 142.1207 | 4.0000e-003 | | 142.2207 |
| Total | 0.0665 | 0.0416 | 0.4861 | 1.4300e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 142.1207 | 142.1207 | 4.0000e-003 | | 142.2207 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| Total | 3.6248 | 38.8435 | 29.0415 | 0.0621 | 8.6733 | 1.6349 | 10.3082 | 3.5965 | 1.5041 | 5.1006 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0665 | 0.0416 | 0.4861 | 1.4300e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 142.1207 | 142.1207 | 4.0000e-003 | | 142.2207 |
| Total | 0.0665 | 0.0416 | 0.4861 | 1.4300e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 142.1207 | 142.1207 | 4.0000e-003 | | 142.2207 |

3.5 Building Construction - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.075 0 | 3,789.075 0 | 0.2381 | | 3,795.028 3 |
| Worker | 2.6620 | 1.6677 | 19.4699 | 0.0571 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 5,691.935 4 | 5,691.935 4 | 0.1602 | | 5,695.940 8 |
| Total | 3.0904 | 14.8350 | 23.2704 | 0.0926 | 7.0087 | 0.0749 | 7.0836 | 1.8799 | 0.0699 | 1.9498 | | 9,481.010 4 | 9,481.010 4 | 0.3984 | | 9,490.969 1 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.075 0 | 3,789.075 0 | 0.2381 | | 3,795.028 3 |
| Worker | 2.6620 | 1.6677 | 19.4699 | 0.0571 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 5,691.935 4 | 5,691.935 4 | 0.1602 | | 5,695.940 8 |
| Total | 3.0904 | 14.8350 | 23.2704 | 0.0926 | 7.0087 | 0.0749 | 7.0836 | 1.8799 | 0.0699 | 1.9498 | | 9,481.010 4 | 9,481.010 4 | 0.3984 | | 9,490.969 1 |

3.5 Building Construction - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.209 9 | 2,555.209 9 | 0.6079 | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.9156 | 0.0122 | 0.9277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.400 7 | 3,671.400 7 | 0.2096 | | | 3,676.641 7 |
| Worker | 2.5029 | 1.5073 | 17.8820 | 0.0550 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,483.797 4 | 5,483.797 4 | 0.1442 | | | 5,487.402 0 |
| Total | 2.8211 | 11.4799 | 21.2591 | 0.0893 | 7.0088 | 0.0601 | 7.0688 | 1.8799 | 0.0557 | 1.9356 | | 9,155.198 1 | 9,155.198 1 | 0.3538 | | | 9,164.043 7 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |
| Total | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.209 9 | 2,555.209 9 | 0.6079 | | | 2,570.406 1 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.9156 | 0.0122 | 0.9277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.4007 | 3,671.4007 | 0.2096 | | 3,676.6417 |
| Worker | 2.5029 | 1.5073 | 17.8820 | 0.0550 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,483.7974 | 5,483.7974 | 0.1442 | | 5,487.4020 |
| Total | 2.8211 | 11.4799 | 21.2591 | 0.0893 | 7.0088 | 0.0601 | 7.0688 | 1.8799 | 0.0557 | 1.9356 | | 9,155.1981 | 9,155.1981 | 0.3538 | | 9,164.0437 |

3.6 Paving - 2023

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0469 | 0.0282 | 0.3349 | 1.0300e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 102.6928 | 102.6928 | 2.7000e-003 | | 102.7603 |
| Total | 0.0469 | 0.0282 | 0.3349 | 1.0300e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 102.6928 | 102.6928 | 2.7000e-003 | | 102.7603 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0469 | 0.0282 | 0.3349 | 1.0300e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 102.6928 | 102.6928 | 2.7000e-003 | | 102.7603 |
| Total | 0.0469 | 0.0282 | 0.3349 | 1.0300e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 102.6928 | 102.6928 | 2.7000e-003 | | 102.7603 |

3.6 Paving - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0444 | 0.0257 | 0.3114 | 1.0000e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 99.5045 | 99.5045 | 2.4700e-003 | | 99.5663 |
| Total | 0.0444 | 0.0257 | 0.3114 | 1.0000e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 99.5045 | 99.5045 | 2.4700e-003 | | 99.5663 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0444 | 0.0257 | 0.3114 | 1.0000e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 99.5045 | 99.5045 | 2.4700e-003 | | 99.5663 |
| Total | 0.0444 | 0.0257 | 0.3114 | 1.0000e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 99.5045 | 99.5045 | 2.4700e-003 | | 99.5663 |

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4734 | 0.2743 | 3.3220 | 0.0107 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,061.3818 | 1,061.3818 | 0.0264 | | 1,062.0410 |
| Total | 0.4734 | 0.2743 | 3.3220 | 0.0107 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,061.3818 | 1,061.3818 | 0.0264 | | 1,062.0410 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| Total | 236.5923 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4734 | 0.2743 | 3.3220 | 0.0107 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,061.3818 | 1,061.3818 | 0.0264 | | 1,062.0410 |
| Total | 0.4734 | 0.2743 | 3.3220 | 0.0107 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,061.3818 | 1,061.3818 | 0.0264 | | 1,062.0410 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|---------|----------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------------|-----------------|--------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.80 05 | 47,917.80 05 | 2.1953 | | 47,972.68 39 |
| Unmitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.80 05 | 47,917.80 05 | 2.1953 | | 47,972.68 39 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down) | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4769.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35.7843 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7599 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| Total | | 0.7660 | 6.7463 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| Total | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Attachment C

| Local Hire Provision Net Change | |
|---|------------|
| Without Local Hire Provision | |
| Total Construction GHG Emissions (MT CO2e) | 3,623 |
| Amortized (MT CO2e/year) | 120.77 |
| With Local Hire Provision | |
| Total Construction GHG Emissions (MT CO2e) | 3,024 |
| Amortized (MT CO2e/year) | 100.80 |
| % Decrease in Construction-related GHG Emissions | 17% |

O14-22

EXHIBIT B



Technical Consultation, Data Analysis and
Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE

2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550

Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Principal Environmental Chemist

Chemical Fate and Transport & Air Dispersion Modeling

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
 UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
 UCLA School of Public Health; 2003 to 2006; Adjunct Professor
 UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
 UCLA Institute of the Environment, 2001-2002; Research Associate
 Komex H₂O Science, 2001 to 2003; Senior Remediation Scientist
 National Groundwater Association, 2002-2004; Lecturer
 San Diego State University, 1999-2001; Adjunct Professor
 Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
 Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
 Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
 King County, Seattle, 1996 – 1999; Scientist
 James River Corp., Washington, 1995-96; Scientist
 Big Creek Lumber, Davenport, California, 1995; Scientist
 Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
 Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermid and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisnoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisnoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisnoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS-6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. *The 23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florida, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

Rosenfeld, P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

Rosenfeld, P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

- In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019
- In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido”
Defendant.
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19
- In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018
- In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017
- In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017
- In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017
- In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018
- In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

- In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017
- In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015
- In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015
- In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015
- In The Iowa District Court For Wapello County
Doug Pauls, et al., et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015
- In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action NO. 14-C-30000
Rosenfeld Deposition, June 2015
- In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward
DeRuyter, Defendants
Rosenfeld Deposition: July 2015
- In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015
- In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014
- In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City
Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas

Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.

Case Number cc-11-01650-E

Rosenfeld Deposition: March and September 2013

Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio

John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*

Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)

Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division

Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs*, vs. BP Products North America, Inc., *Defendant*.

Case 3:10-cv-00622

Rosenfeld Deposition: February 2012

Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland

Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants

Case Number: 03-C-12-012487 OT

Rosenfeld Deposition: September 2013

O14-22
(cont.)

EXHIBIT C



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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

**Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nationwide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

2.3.2.14 Letter O14: Southwest Mountain States Regional Council of Carpenters

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, Comments on the Revised Draft 2045 CAP, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

- O14-1 This comment does not raise significant environmental issues related to the Recirculated Draft PEIR warranting a response pursuant to CEQA Guidelines section 15088(a). However, all comments timely provided and fairly presented by SWMSRCC during the public comment period and before the close of the Project’s public hearing shall be included within the administrative record and presented to the County Board of Supervisors for consideration prior to Project approval.
- O14-2 In response to the comment’s incorporation by reference of comments raising issues regarding the Revised Draft 2045 CAP and its environmental review, this comment does not identify any specific alleged deficiencies in the Recirculated Draft PEIR such that a specific response cannot be provided and does not raise significant environmental issues relating to the Recirculated Draft PEIR warranting a response pursuant to CEQA Guidelines section 15088(a). However, all public comments timely provided and fairly presented to the County shall be included within the administrative record and presented to the County Board of Supervisors for consideration prior to Project approval.
- O14-3 The County will provide notice to the commenter of actions relating to the Revised Draft 2045 CAP as required under CEQA and Planning and Zoning Law. For the notices regarding the Revised Draft 2045 CAP project, interested parties can register for the project listserv to receive email notifications:
<https://planning.lacounty.gov/get-involved/>.
- O14-4 to O14-5 The comment requests the consideration of measures and strategies in addition to increasing densities and diversity of land uses near transit, reducing single-occupancy vehicle trips, and institutionalizing low-carbon transportation. See O14-6 to O14-10 for a response to the specific additional requested measures and strategies.
- O14-6 to O14-10 In regards to the comment’s statement that local hire is helpful to reduce environmental impacts by reducing the length of vendor trips and GHG emissions, ensuring that local workers have employment opportunities on projects situated within their communities has long been a core element of economic development programs at the municipal level. To this end, the County adopted a Local and Targeted Worker Hire Policy that took effect for contracts approved by the Board of Supervisors after October 31, 2016. This policy imposes a 30 percent Local Hire goal and a 10 percent

Targeted Worker hire goal on most major construction projects approved by the Board. A Targeted Worker is defined as a County resident of the County who has indices of career-limiting circumstances such as documented annual income at or below 100 percent of the Federal Poverty Level (FPL). A Local Worker is defined as an individual living within Tier 1 or Tier 2 qualifying Zip Codes. Before employing workers from Tier 2 Zip Codes, the available pool of local residents whose primary place of residence is within Tier 1 Zip Codes must first be exhausted. Tier 1 means a qualifying Zip Code within five miles of the proposed project site and Tier 2 means a qualifying Zip Code beyond five miles of the proposed project site.

The Local and Targeted Worker Hire Policy achieves the following: 1) retain and create jobs in communities that need them most; 2) provide opportunities and life-long skills that can become real careers; 3) provide second chance and hope to those facing barriers of employment; 4) stimulate local economy; and 5) promote small business. Simultaneously, it contributes to the reduction of GHG emissions from this segment of the workforce.

The remainder of this comment regarding local hire effects on economic development does not raise significant environmental issues relating to the Recirculated Draft PEIR warranting a further response pursuant to CEQA Guidelines section 15088(a).

- O14-11 Assembly Bill 2011 focuses on affordable housing on commercially zoned lands and has a list of other specified criteria. The County's Local and Targeted Worker Hire Policy complements Assembly Bill 2011 since it has a broader range of projects than solely affordable housing projects on commercially zoned lands. This comment does not raise significant environmental issues relating to the Recirculated Draft PEIR warranting a further response pursuant to CEQA Guidelines section 15088(a).
- O14-12 to O14-15 See Response O14-6 through O14-10. The County already implements a Local and Targeted Worker Hire Policy that contributes to the environmental benefits stated in the comment, including the reduction of GHG emissions from this segment of the workforce.
- O14-16 This comment provides a recitation of certain general legal standards regarding CEQA compliance, and no response is required for such comments, as it does not raise significant environmental issues relating to the Recirculated Draft PEIR warranting a response pursuant to CEQA Guidelines section 15088(a). The Recirculated Draft PEIR has been prepared in compliance with CEQA. Regarding the comment's discussion regarding preparation of an EIR, as described in Chapter 1, *Introduction*, of the Recirculated Draft PEIR, the Recirculated Draft PEIR is an informational document intended to disclose to the public and decision-makers the environmental impacts of the Revised Draft 2045 CAP. Consistent with CEQA Guidelines section 15081, the County has prepared the Recirculated Draft PEIR to document its analysis of the environmental impacts of the Revised Draft 2045 CAP. All environmental resource areas in the CEQA Guidelines Appendix G Environmental Checklist have

been studied, as shown in Appendix A.1, *Notice of Preparation and Initial Study*, of the Recirculated Draft PEIR. Some environmental resource areas were screened out of detailed review based on substantial evidence that the Revised Draft 2045 CAP would have no impact or a less-than-significant impact on the environment. The Recirculated Draft PEIR provided a more detailed analysis as to whether the Revised Draft 2045 CAP would result in significant environmental impacts to the remaining resources that were not screened out.

- O14-17 The County acknowledges the commenter’s support for the Checklist as a mechanism for general plan-consistent projects to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). See General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects, for additional discussion.
- O14-18 The County acknowledges the commenter’s summary of CEQA Guidelines section 15183.5(b) regarding the requirements of a qualified CAP, and concurrence that the Revised Draft 2045 CAP meets these requirements. See General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects, for additional discussion.
- O14-19 In response to the comment’s request for the Checklist to include a local hire requirement, although a local hire measure has the potential to reduce Countywide VMT and associated mobile source GHG emissions, the Revised Draft 2045 CAP does not include a local hire measure or as a requirement in the Checklist. At this time, the County respectfully declines to include a local hire measure or as a Checklist requirement. However, such a measure could potentially be used as an alternative GHG emission reduction measure pursuant to Checklist Step 4, provided that a project applicant demonstrate how such a measure would reduce GHG emissions equivalent or greater level than to the Checklist requirement that it replaces. (Revised Draft 2045 Appendix F, pp. F-4, F-12 to F-15). See General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects, for additional discussion. As a matter of policy, the County does employ a Local and Targeted Worker Hire Policy on most major construction projects approved by the Board of Supervisors.
- O14-20 See Response O14-10.
- O14-21 The County notes the information contained in Attachment A of the comment letter, consisting of a draft technical report regarding worker trips with respect to the estimation of GHG emissions in support of the substance of the main comment letter. The Recirculated Draft PEIR has adequately analyzed impacts associated with transportation resources and VMT specifically (see Recirculated Draft PEIR p. 3.15-18) and the Revised Draft 2045 CAP includes measures that reduce VMT (see, for example, Measures T1, T4, and T5). The County has reviewed SWAPE’s draft report and determined that the information provided is generic, offers no opinion about

impacts associated with the Revised Draft 2045 CAP, and does not bear on the adequacy or accuracy of the Recirculated Draft PEIR or the conclusions reached in the Recirculated Draft PEIR. The commenter's draft opinions about worker trips and GHG emissions are acknowledged, but in light of substantial evidence cited and relied upon in the Recirculated Draft PEIR, the County disagrees with any suggestion that the opinions expressed should result in revision to or clarification of the Recirculated Draft PEIR. This comment presenting data to support a suggested policy directive does not raise significant environmental issues specifically relating to the adequacy of the Recirculated Draft PEIR such that no response is required pursuant to CEQA Guidelines section 15088(a).

- O14-22 This comment consists of the resumes of Paul Rosenfeld CV and Matt Hagemann CV of SWAPE, which prepared the technical report referenced in Comment O14-21; however, this comment does not raise significant environmental issues relating to the adequacy of the Recirculated Draft PEIR such that no response is required pursuant to CEQA Guidelines section 15088(a).



May 15, 2023

VIA U.S. MAIL:

Los Angeles County Department of Regional Planning
Attn: Thuy Hua
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

VIA EMAIL: climate@planning.lacounty.gov

SUBJECT: Draft 2045 Climate Action Plan (CAP) Comment Period

Dear Ms. Hua:

Tejon Ranch Co., on behalf of itself and its subsidiary/affiliated entities Tejon Ranchcorp and Centennial Founders, LLC (collectively, the “Tejon Ranch”) offers these written comments on the proposed Draft 2045 Climate Action Plan (“CAP”) and the Recirculated Draft Program Environmental Impact Report (“PEIR”), State Clearinghouse #2021120568.

Tejon Ranch applauds Los Angeles County’s pledge to fight global climate change. We believe that State and local climate measures can be feasibly implemented in furtherance of other critical California priorities such as the continued growth of the California economy, the increased equity and upward mobility for our working families and employers, the funding and timely completion of urgently needed transportation, water and other infrastructure, and the implementation of the housing elements approved by our cities and counties to solve our regional housing crisis. Tejon Ranch is committed to being at the forefront of conservation and sustainable development to help lead the charge on protecting California’s resources while creating communities that provide jobs and housing that align with the State’s and County’s goals.

O15-1

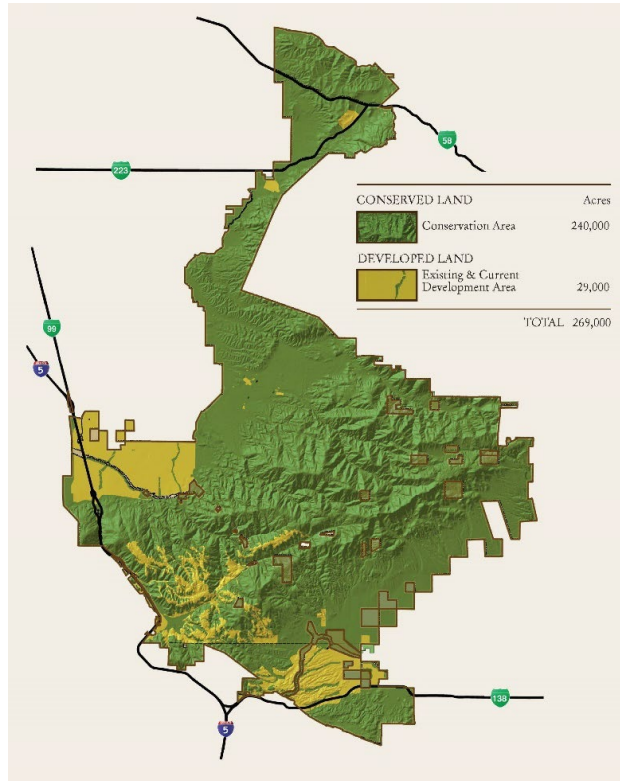
Tejon Ranch – Leading the Way

In 2008, Tejon Ranch entered into the Tejon Ranch Conservation and Land Use Agreement (Ranchwide Agreement), a historic conservation agreement with the state's leading environmental advocacy groups (Natural Resources Defense Council, Sierra Club, Audubon Society, Planning and Conservation League, and Endangered Habitats League) to conserve approximately 240,000 acres (roughly 90 percent) of the Ranch lands, and allow development of four significant new master planned communities on sites scientifically selected as having lower natural resource values, which are located proximate to existing transportation and utility infrastructure on the remaining, approximately 30,000 acres (roughly 10 percent). As a voluntary and proactive conservation agreement by Tejon Ranch, the Ranchwide Agreement is the largest private land conservation commitment in California history and was finalized following many years of detailed project-level scientific analysis and data collection on Tejon Ranch. At 240,000 acres, the open space preservation at Tejon Ranch is larger than any other private conservation commitment in

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under the Ranchwide Agreement contain multitudes of trees and plants which serve as carbon sinks that will fight climate change in perpetuity. These lands capture approximately 3.3 million tons of carbon, which is equivalent to the carbon produced by 2.5 million passenger vehicles (5% of California’s fleet) in a year.

Tejon Ranch is an iconic California property in remarkable condition – but not from being untouched. It is working land that is cared for with intention and principles of good stewardship that inspired the creation of huge conservation areas that conserve hundreds of plant and animal species. Tejon Ranch’s extensive water assets meet our current needs as well as our projected future needs through the full buildout of our master planned communities. The Ranch has led in the adoption of environmentally sensitive practices throughout our enterprise, including water conservation in our ranching, farming, and real estate operations, including water resource recovery facilities (WRRF) incorporated into each of our master plans including Centennial, Tejon Mountain Village, Grapevine, and the Tejon Ranch Commerce Center. Environmental sensitivity and sustainability are



cornerstones of the thoughtful planning, intentional design, and careful development of our master planned communities which will serve to solve California’s housing crisis in an intelligent way. All communities at Tejon Ranch will be built with resiliency features such as permanently maintained defensible space, community water systems incorporating state-of-the-art water conservation measures, reclaimed water for irrigation, stormwater capture, drought-tolerant landscaping, photovoltaic solar, multi-modal transportation, and prolific EV charging stations.

Tejon Ranch has executed upon thoughtful, forward-thinking development at our Tejon Ranch Commerce Center (TRCC), which has created thousands of jobs for the surrounding communities. One such example was the completion of second largest single-roof commercial solar energy system in the State of California in 2011¹ which was the equivalent of “eliminating the emissions of 389 cars or powering 241 homes yearly.” The water used for irrigating the drought tolerant landscaping at TRCC is recycled at Tejon Castac Water District’s water

¹ <https://www.businesswire.com/news/home/20110511005387/en/IKEA-Powers-Up-2nd-Largest-Single-Roof-Commercial-Solar-Energy-System-in-State-at-Distribution-Center-in-Tejon-California>

O15-1
(cont.)

reclamation and recycling facilities. The Commerce Center is also a focal stopping point along the Interstate 5 corridor for electric vehicles. To date, there are over one hundred charging stations built on-site and we are working to deliver many more.

O15-1
(cont.)

Tejon Ranch’s masterplan, Centennial, a future net-zero GHG community² located in Los Angeles County, includes 19,333 homes, of which nearly 3,500 are affordable housing units, and provides a jobs-housing balance through 10.1 million square feet of commercial, industrial and institutional uses. During the many years of planning of Centennial, Tejon meticulously identified achievable GHG reductions and project level mitigation measures that dramatically reduced the GHG impacts of the project. Many of these GHG reduction measures are included within the certified Environmental Impact Report ("EIR") for the Centennial project and the remainder are included in the legally-binding and publicly transparent Climate Resolve Settlement Agreement which has been previously provided to the County. As a result of our commitment to these unrivaled GHG reduction measures, the project has been formally recognized by the state’s leading climate regulatory agency, the California Air Resources Board, as a model for large residential development projects in achieving net-zero GHG emissions³. A few of these measures are listed below and are consistent with the Draft 2045 CAP or exceed what Los Angeles County has envisioned to date.

O15-2

- 50% of the project’s total electric energy demand (i.e. household, business, civic/institutional, recreational, and public facilities) shall be met by onsite renewable energy.
- 100% of project single-family detached homes shall be “solar-ready” or equivalent, based on the latest technology.
- Provide a ride-share program, on demand pick up, shuttle service or similar methods to employment, commercial and residential areas of Centennial.
- Provide “complete streets” throughout the community to provide alternative modes of transport (walking, biking, low-speed vehicles (LSVs) such as neighborhood electric scooters, bikes, and other Neighborhood Electric Vehicles (NEVs).
- Implement a NEV Network – for NEVs (a “low speed vehicle” up to 35 MPH that are electric powered and ideal for short trips up to 30 miles in length). A NEV network includes roadways, parking, charging stations, striping, signs, and educational tools and can double as bicycle routes. NEVs are an alternative to traditional vehicle trips and therefore would reduce vehicle trips.
- Net Zero GHG Emissions: The community commits to net zero GHG emissions by reducing to zero all emissions through significant on-site and off-site commitments. A large component prioritizes disadvantaged communities, followed by other projects within Los Angeles County, and other parts of southern and central California.
- Electric Vehicle Advancement: Advance the EV future through commitments to install almost 30,000 chargers within and outside the community. Provide incentives to support the purchase of 10,500 electric vehicles.

² [Environmental group and Tejon Ranch agree on plan to build 19,300 zero-emission homes](#), Los Angeles Times, December 1, 2021

³ [California Air Resources Board Final 2022 Scoping Plan Update](#), Appendix D, pages 25-26.

- 95 miles of bike/pedestrian trails to encourage walkability and non-motorized transportation for residents to work, live and play within Centennial.
- Wildfire Prevention: Funding for on-site and off-site fire protection and prevention measures, including up to 4 fire stations, comprehensive fire protection plan and emergency response plan, fire-resilient community design, planning, and vegetation management (including fuel modification zones) with benefits to neighboring communities and new buildings that will employ the latest building codes.

O15-2
(cont.)

These are just some of the forward-thinking commitments that Tejon Ranch has made on a project level to minimize and then fully offset remaining GHG emissions as to its Centennial project. These project features are important because they demonstrate feasible, clear, implementable project level mitigations. Tejon Ranch is proud of Centennial and the progressive measures it will implement while providing attainable housing and affordable housing for Los Angeles County residents. Tejon Ranch will continue to support climate crisis goals and is partnering with Los Angeles County to bring cutting edge concepts to address climate change on a project level.

Draft 2045 CAP Should Not be a Component of the General Plan

The Draft 2045 CAP is crafted for an enormous County with vastly different pockets of populations and densities and is trying to address numerous issues in a one-size-fits-all section of the County General Plan. Erroneously, as currently written, the Draft 2045 CAP is contemplated to be adopted as part of the Los Angeles County General Plan. Irreparably, once included in the General Plan, compliance with the Draft 2045 CAP is mandatory: neither elected officials nor staff can authorize deviations from the Draft 2045 CAP without amending the General Plan. Third parties seeking to block funding or approvals of infrastructure, job-creation, and housing projects can also sue the County, alleging failure to fully comply with the Draft 2045 CAP in accepting or disbursing funds, or approving, infrastructure, jobs or housing projects. Both the County and applicants receiving County approvals for such projects will become targets in such opposition lawsuits.

O15-3

Inclusion of the Draft 2045 CAP in the General Plan also creates new County obligations, and expands litigation risks, under the California Environmental Quality Act ("CEQA").¹ As the Draft 2045 CAP itself explains, any project that fails to comply with all applicable requirements (inclusive of the 25 Draft 2045 CAP measures, more than 90 implementation actions, and scores of PEIR mitigation measures, collectively "CAP Measures") would conflict with an environmental component of the General Plan, a significant and unavoidable Land Use impact, and would have a significant GHG impact.² These conflicts would trigger the necessity for an Environmental Impact Report (EIR) and preclude the County or applicants from making use of less costly, less time-consuming, and less litigious CEQA compliance pathways.³ The Draft 2045 CAP specifies that for each non-compliant Draft 2045 CAP Measure, the "infeasibility" of such a measure must be demonstrated with substantial evidence. Each one of these "infeasibility" findings, as well as the sufficiency of any alternative Draft 2045 CAP measure, is also subject to challenge in CEQA and General Plan compliance lawsuits.

O15-4

O15-5

O15-6

O15-7

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| <p>California Governor Newsom has stressed that California needs 2.5 million new homes by 2030⁴, and officials at the California Department of Housing and Community Development are implementing state law to achieve this goal. To meet the demand of the housing crisis, including achieving the goal of 1 million new units of affordable housing, Los Angeles County must dramatically ramp up housing construction. The Southern California Association of Governments (SCAG) 6th Cycle Regional Housing Needs Allocation (RHNA) plan driving the 2021-2029 housing element for Los Angeles County targets the delivery of over 812,000 homes, 90,000 of which are to be delivered in unincorporated Los Angeles County by 2029. These targets include over 330,000 low income and very-low-income homes, over 39,000 of which are allocated to Unincorporated Los Angeles County. If adopted as part of the General Plan, the Draft 2045 CAP will be used to stop development and will be weaponized against achieving</p> | <p>O15-8</p> |
| <p>State goals and thwarting the delivery of desperately needed homes. The Draft 2045 CAP should be revised to include only feasible, clear, implementable Draft 2045 CAP Measures that are aligned with and allow for full implementation and achievement of other critical County infrastructure, economic development, housing, and other needs.</p> | <p>O15-9</p> |
| <p>If adopted as part of the General Plan, the Draft 2045 CAP hinders County elected and appointed officials' ability to implement long-term housing law compliance obligations. Once adopted, the</p> | <p>O15-10</p> |
| <p>Draft 2045 CAP cannot be amended without undergoing further CEQA review inclusive of adoption of "all feasible mitigation" to achieve either the same or a modified GHG reduction</p> | <p>O15-11</p> |
| <p>goal. Evidence of this happening can be found when San Diego County adopted what its Board of Supervisors believed to be an aspirational CAP into its General Plan in 2018. Anti-housing litigants weaponized the CAP, and courts concluded that the County had adopted the CAP as a fully enforceable General Plan and CEQA mandate. Housing opponents have had an unbroken run of successful lawsuits in blocking multiple new housing projects in that county. San Diego attempted unsuccessfully to amend its CAP and allow for example the use of CARB-approved and other GHG offsets to mitigate GHG emissions, only to lose in court – again, and again. Another example is Solano County, in Northern California, which suffered the same fate when its General Plan aspirational CAP also failed to pass muster in a no-growth advocacy CEQA lawsuit challenge. Looking at this woeful record of local agency losses when CAPs were included in General Plans, even the most pro-climate jurisdictions in California, such as San Francisco, have elected not to include their CAPs in their General Plan – while others have very carefully drafted CAPs to assure that they are clear, feasible, implementable, and operate in alignment with and support other approved General Plan elements, as well as other policy priorities, plans and obligations.</p> | <p>O15-12</p> |
| <p>Tejon Ranch supports the currently adopted County CAP, because it is feasible and includes measures that are within the County's jurisdiction and control to feasibly implement. As the County knows, the Centennial project was determined in both our EIR and by the trial court to be fully consistent with the County's current CAP. The Draft 2045 CAP, in contrast, is a massive</p> | <p>O15-13</p> |
| <p>and sprawling set of mandates – some of which are not even defined, and none of which are tailored to quantitatively assign feasible GHG reduction obligations to new projects, proposed retrofits, and existing structures. CAP 2045 also does not include an economic feasibility</p> | <p>O15-14</p> |
| <p>assessment for the vast range of structures and activities that it seeks to regulate, from advanced manufacturing to entertainment and tourism, from every category of infrastructure project, and</p> | <p>O15-15</p> |

⁴ [Governor Newsom's Newly Created Housing Accountability Unit Marks First Year](#), Nov 4, 2022.

from isolated single-family homes to multi-family, mixed-use, and master planned communities.

O15-15
(cont.)

Overview and Examples of Concerning Draft 2045 CAP Measures

Building homes or commercial and retail is a calculated risk in Los Angeles County and comes with a certain level uncertainty because of CEQA and how CEQA allows opponents to litigate all aspects of each project. However, even the tortuous CEQA process lays out the road map for project applicants to follow to demonstrate compliance, including how to analyze and mitigate impacts through a series of measures and performance standards. CEQA Guidelines are analyzed, debated, studied and compared to previously completed projects, and yet litigants are consistently successful in overruling approvals throughout the State. The reason for the success of overturning approvals during the court process is because project level mitigation and impact analysis can be subjective and left to a judge’s interpretation of CEQA. The Draft 2045 CAP and PEIR add more than 50 new General Plan consistency and compliance obligations, and dozens more implementation and other measures, often without any detail and almost always without any GHG quantification metric, which will only add more uncertainty for project applicants.

O15-16

The Draft 2045 CAP and PEIR collectively provide project opponents a vast bucket list of items to weaponize through CEQA challenges arguing that projects did not sufficiently mitigate impacts against poorly defined, unclear measures and performance standards. The following are just some examples of infeasible measures and mitigations that would create uncertainty for future development in Los Angeles County.

O15-17

1. **Land Use to Address Jobs/Housing Balance:** *By 2030 achieve a jobs density of 300 jobs per acre:*

O15-18

The Draft 2045 CAP 300 employee per acre mandate would not have any immediate effect on existing employers; however, employers and applicants proposing new or expanded commercial, manufacturing, infrastructure, tourism, entertainment, and even church and educational uses, that do not have 300 employees per acre, would be inconsistent with the Draft 2045 CAP.

O15-19

These projects would thus have a significant and unavoidable GHG impact triggering the need for an EIR instead of more streamlined CEQA addendum and categorical exemptions for projects that are consistent with the General Plan.

O15-20

These projects would then be subject to a costly CEQA compliance process, the outcome of which would provide opponents with scores of new CEQA deficiency litigation claims about the sufficiency of substantial evidence to support infeasibility determinations as well as whether the substitute measure will indeed achieve the GHG reduction performance target that corresponds to this 300 employee per acre employment target.

O15-21

Since no such GHG calculations are disclosed in the Draft 2045 CAP, prospective employers would not even know how to begin to show compliance with this Draft 2045 CAP mandate, which is proposed to be independently and fully enforceable as part of the General Plan.

O15-22

Imposing this narrowly defined County-wide employment density metric to such a broad array of future projects, thus exposing them all to CEQA litigation while being out of compliance with the General Plan, is not consistent with the State and County goals to create economic growth and bring jobs to the County's many and diverse communities.

The Draft 2045 CAP and associated Program EIR do not, however, analyze or mitigate the consequences of this measure on the economic development plan components of the County's General Plans, Area Plans, and Community Plans. This is both a fatal flaw in the Program EIR, and a violation of General Plan laws requiring internal harmony and consistency within the County's complex General Plan, which also includes multiple Area Plans and Community Plans.

O15-23

O15-24

The County should encourage job creation that will bring employment opportunities to the residents of Los Angeles County, especially higher wage jobs in expanding and innovating industry and business sectors. It is unrealistic to mandate a job creation of 300 jobs per acre that would be hard to meet for even high-density downtown areas. This measure will discourage any small businesses, hospital expansions, medical offices, manufacturers, retail services, church, entertainment, schools and others from building as none of them could meet the employment density standard established by the Draft 2045 CAP and would be considered inconsistent with the General Plan and have an unavoidable CEQA GHG impact. This is particularly unachievable given the expansion of hybrid workforce, where only a portion of employees are present daily, especially in the goods movement sector, entertainment or religious venues, schools or recreational sports facilities, or on college and university campuses, this mandate would not be achievable. Table 1 below includes the average employment densities of common categories of commercial use, none of which come close to the 300 employee per acre Draft 2045 CAP requirement.

O15-25

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O15-27

Table 1: Employment Density per Acre by Sector

O15-28

| Sector (NAICS codes) | Mean | Median | IQR | Sample size |
|---|------|--------|------|-------------|
| Manufacturing (31, 32, 33) | 18.8 | 11.0 | 15.7 | 217 |
| Transportation and Warehousing (48, 49) | 11.2 | 8.0 | 10.8 | 34 |
| Construction (23) | 19.4 | 9.9 | 18.4 | 122 |
| Wholesale Trade (42) | 12.8 | 8.0 | 11.1 | 132 |
| Retail Trade (44, 45) | 13 | 7.1 | 11.6 | 65 |
| Real Estate and Rental and Leasing (53) | 5.7 | 2.2 | 5.8 | 24 |
| Administrative Support and Waste Management and Remediation Services (56) | 22.5 | 20.3 | 22.0 | 25 |

2. Ban on Net Zero Projects Using CARB-Approved Methodologies for Feasibly Achieving Net Zero GHG Projects:

The Draft 2045 CAP correctly relies on other laws and agencies previously completed work product to help Los Angeles County meet their goals. The Draft 2045 CAP heavily touts the California Air Resources Board (CARB), widely considered the state's expert climate agency, adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), "which lays out a path for achieving the statewide goals". The goals and priorities of the Draft 2045 CAP can mirror the 2022 Scoping Plan without being adopted

O15-29

in the General Plan. Instead, the County should consider the Draft 2045 CAP as aspirations for the County to achieve and review each individual project to thoughtfully craft and adopt measures that can be implemented to help off-set emissions.

O15-29
(cont.)

In fact, the County has already done this with their approval of the only two major mixed use master planned communities recognized by CARB to have achieved Net Zero GHG: Centennial and Newhall. Centennial is a model for achieving Net Zero GHG as acknowledged by CARB in their 2022 Scoping Plan “Tejon Ranch Company, the developer for the Centennial Specific Plan located in northern Los Angeles County, also committed its development to result in no net increase of GHG emissions... Mitigation measures employed by these developers include the prohibition of natural gas in residential and commercial properties; the requirement of on-site solar photovoltaic energy systems on residential and commercial properties; the installation of almost 30,000 EV chargers within and outside the plan area; funding incentives for the purchase of 10,500 passenger EVs and electric school buses and trucks; and procuring and retiring carbon offset credits from the voluntary market... they do demonstrate the feasibility of a net-zero approach for other large and complex residential development projects.”

O15-30

The County likewise recognized this achievement and commitment from Centennial with their trial court filing on February 2, 2022, stating, “that Real Parties (*Tejon Ranch Co. et al.*) have reached an accord with Climate Resolve to **achieve a “net zero GHG project” with massive investments in green infrastructure.**”⁵

Centennial's net zero GHG program also complies with the CARB-endorsed geographic hierarchy of GHG mitigation to successfully mitigate GHG emissions: “The State recommends prioritizing GHG mitigation actions according to a geographic hierarchy as follows: on-site opportunities; local, off-site GHG mitigation; and GHG offsets that meet CEQA’s requirements.” “The recent settlement agreement applicable to the Centennial Specific Plan in Los Angeles County also applied a geographic hierarchy for GHG mitigation, specifying that at least 51 percent of mitigated emissions should take place within the project, 69.5 percent within California, 82.25 percent within the United States, and no more than 17.75 percent from international projects. The geographic hierarchy of GHG mitigation is feasible, as demonstrated by these examples.”⁶

O15-31

Despite supporting these Centennial project approvals and supporting CARB’s 2022 Scoping Plan, the Draft 2045 CAP specifically forbids projects from partnering with CARB to achieve carbon neutral goals, rejecting use of the CARB-approved Net Zero GHG compliance pathway employed by the only recognized large residential Net Zero GHG projects in California, by expressly disallowing GHG reductions to be achieved by CARB-approved GHG offsets that are quantified, validated, and meet other criteria including additionality.⁷ Instead, the Draft 2045 CAP allows, but does not provide detail on, a future County-only GHG reduction offset credit program that may potentially be

O15-32

O15-33

⁵ Objections to Petitioners’ [Proposed] Judgment Granting Peremptory Writ of Mandate at p. 6, Center for Biological Diversity et al. v. County of Los Angeles, et al., Case No. 19STCP02100 (Los Angeles County Superior Court, filed Feb. 22, 2022).

⁶ https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp-appendix-d-local-actions_0.pdf Draft 2022 Scoping Plan May 2022

defined, evaluated, adopted, and ultimately implemented at some later date. In fact, there is no information provided about the cost, feasibility, schedule, or scale of any such future offset program. The Draft 2045 CAP states:

“An offsets/credits program is not a 2045 CAP strategy, measure, or action currently proposed for implementation... Further, offset credits are not currently permitted to be used as alternative project emissions reduction measures for new development pursuant to the 2045 CAP Consistency Checklist. The offsets/credits program would be considered for potential implementation later, and only after completion of the feasibility study. The potential offsets/credit program would be designed to be consistent with applicable CEQA case law requirements, including requirements that offsets be enforceable, real, permanent, quantifiable, verifiable, and additional. The potential offsets/credits program would provide clear, objective, and measurable performance standards for all allowable GHG offsets. For any potential future GHG offsets/credits program evaluated by the County, the County would prioritize implementation of offsets generated within or close to Los Angeles County.”

O15-33
(cont.)

¶The Draft 2045 CAP asserts that it will fulfill CARB’s goals and policies, but then expressly forbids the essential GHG offset component that were critical components of the net zero GHG programs in the County's own CARB-recognized master planned communities.

O15-34

¶If the County’s ultimate goal is indeed to achieve carbon neutrality by 2045, while simultaneously fighting climate change, the County should embrace any method that helps reduce GHG for both the County, State and the Globe.

O15-35

¶As mentioned above, the Draft 2045 CAP allows but does not include a County-only GHG reduction offset credit program, but includes zero information about the cost, feasibility, schedule or scale of any such future program. ¶The Draft 2045 CAP does not create any feasible new Net Zero GHG compliance pathway for any new project, undermining the Board’s Resolution endorsing net zero GHG project outcomes similar to those already achieved by Centennial and Newhall. ¶The Draft 2045 CAP currently creates only a net zero GHG compliance pathway for like-kind replacement projects on the same site that emit less GHG. Replacing an old office building or home with a new "like-kind" office building or home easily achieves this net zero GHG outcome given new lower GHG technologies and legal mandates, but the Draft 2045 CAP creates no compliance pathway for projects that would increase land use densities and intensities which are called for under the Housing Element as well as economic development components of the General Plan, or that include new uses beyond those that already exist on the same site. ¶The Draft 2045 CAP makes housing, commercial, and mixed-use master planned community projects – as well as infrastructure and public facility projects - that are in full compliance with the General Plan, Housing Element and every existing GHG reduction mandate, a violation of the County’s General Plan.

O15-36

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3. Severe and Unlawful New Prohibitions Regarding the Use of Existing Water Supplies:

Like much of California, the development of Los Angeles County was and remains dependent on a diverse and resilient water supply that includes imported water. The Draft 2045 CAP demands that 90% of all water consumed within the unincorporated County boundaries, and 80% of agricultural irrigation water, be supplied exclusively by local water sources consisting of reclaimed water, grey water, and potable recycled water by 2045 with no pathway to achieve this. Under this Draft 2045 CAP Measure, no

O15-40

imported water source – including water delivered directly to the County, and water purchased and stored for use in the County, and no de-salinization technology or other technology falling outside the three designated technologies, can supply more than 10% of the County’s total water demand. It is unrealistic and infeasible to demand new projects study and comply with this measure when the technology does not currently exist to do so, regulations do not currently authorize potable use of treated water, and existing development within the County will not be held to the same standards. This will create certain litigation for any project moving forward as a red flag of General Plan inconsistency, and yet the Draft 2045 CAP provides no pathway for new projects to be compliant. Consider the following five concerns if the Draft 2045 CAP moves forward with this measure.

O15-41

O15-42

i. Legally infeasible. The County is party to numerous water infrastructure, supply, and management contracts that govern imported water, which is by far the largest source of water to the County and cities within the County.

O15-43

ii. Technically and scientifically infeasible. While all three of the exclusively sanctioned water treatment technologies (grey water, reclaimed water, and toilet-to-tap water) have already been invented and implemented on a small scale in limited areas (almost none of which supply water to unincorporated Los Angeles County), all of these treatment technologies effectively concentrate nitrate and other residual chemicals in the treated water supply, and for technical, scientific, and regulatory compliance reasons, these treated waters must be blended with fresh water to be usable (for either non-potable or potable uses) over time through multiple treatment cycles. It is not technically feasible, based on both the realities of chemistry and geographic distribution, to supply 90% of the County’s water supply from grey water, recycled water, and potable reclaimed water.

O15-44

O15-45

iii. Conflict with other County General Plan, plan, policy, and state law legal mandates. The County is required by its own General Plan as well as state law to implement its approved Housing Element, calling for delivery of 90,000 new homes in Unincorporated Los Angeles County by 2029, and plan for and approve plan-compliant housing for these many thousands of new homes. New homes cannot be built without adequate water supplies;

O15-46

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| <p>however, the Draft 2045 CAP would cause the County to violate housing laws by disapproving new housing dependent on existing and new water supplies that are not supplied by a minimum of 90% recycled, grey water, and potable recycled water – none of which are currently available or legally sanctioned to meet the potable drinking water needs of multi-family and community-scale housing seeking County approvals today.</p> | O15-47 |
| <p>The County also cannot achieve its economic diversification goals, including for example attracting additional advanced manufacturing, battery and climate-tech, aerospace, research, medical, and technology employers, without providing an adequate, secure, and high-quality water supply.</p> | O15-48 |
| <p>iv. The Draft 2045 CAP, if adopted into the General Plan as proposed, applies most directly and immediately to the County’s own projects, and to the County’s approval of project applications. This means that the legal risks and compliance costs of the legally and technically infeasible water mandate in the Draft 2045 CAP will fall most immediately on challenges to County-funded projects (e.g., infrastructure, arts, parks), as well as County-approved and applicant-proposed housing and job-creation projects that meet other urgent County needs and legal obligations.</p> | O15-49 |
| <p>A new water recycling project that relies on blending treated water with imported water would, for example, fail if it used even 15% of imported water as a blending source for recycled water.</p> | O15-50 |
| <p>v. The One-Size Fits All Technology Mandates in the Draft 2045 CAP (for Water Supplies and Other prescriptions) Are Anti-Innovation and Impede Global GHG Reductions. The Draft 2045 CAP accepts only three water technologies to provide 90% of the County’s total water supply, all of which are technologies that exist today.</p> | O15-51 |
| <p>The Draft 2045 CAP is hostile to innovative technologies, notwithstanding decades of progress in achieving environmental goals through technology innovation. CARB has confirmed that the entire California economy contributes less than 1% to global GHG emissions, and the County’s most significant climate change leadership opportunities are supporting innovation including development and production of new technologies and practices that are desirable and cost-effective, and thus likely to be used by other states and countries. The County’s leadership in technology innovation, capital and company formation, advanced manufacturing, and marketing, are the necessary and appropriate engines of global climate change solutions.</p> | O15-52 |
| <p>The 2045 Draft CAP’s 10% cap on imported water frustrates, rather than furthers, these climate change leadership opportunities and is more likely to shuffle people and jobs to other states and local jurisdictions than result in meaningful global GHG reductions.</p> | O15-53 |

Additional Challenges with the Draft 2045 CAP

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| <p>As documented throughout this letter, the Draft 2045 CAP does not quantify the amount of GHG reductions the various measures would bring to the County if implemented, and yet each project applicant will be left trying to calculate reduction numbers to try and comply with the measures.</p> | <p>O15-54</p> |
| <p>The Draft 2045 CAP indicates that to show consistency through an alternative measure, a project must show how it can quantitatively achieve the same reductions as the listed measure (Page F-5 of Appendix F). However, for many of these measures the Draft 2045 CAP does not quantify the emissions associated with the measure (e.g., ES4, ES5, T5, E3, W2, A2, and emission reductions within sub-measures listed in Appendix E for each measure are not broken out individually</p> | <p>O15-55</p> |
| <p>either) and thus, there is 1) no basis in the Draft 2045 CAP how these measures are achieving GHG reductions,</p> | <p>O15-56</p> |
| <p>and 2) no basis for a Project to demonstrate consistency with the Draft 2045 CAP or for alternatives to these measures.</p> | <p>O15-57</p> |
| <p>The Draft 2045 CAP Checklist also includes aspirational requirements (i.e., EV trucks [Measure T8] and construction electric equipment [Measure T9]) which no project can currently be consistent with given the lack of technology to meet these requirements.</p> | <p>O15-58</p> |
| <p>However, when included in the General Plan as proposed for the Draft 2045 CAP, the County has ensured that projects will be inconsistent with the General Plan by not being able to comply with technology that doesn't exist.</p> | <p>O15-59</p> |
| <p>In addition, the Draft 2045 CAP includes many plans (e.g., Zero Emission Vehicle Master Plan, Building Performance Standards, Carbon Intensity Limits, ZNE Ordinance, All-Electric New Buildings Ordinance, and Net Zero Water Ordinance) that are cited in Appendix E and F, but have not even been developed yet. Without knowing the content of these undeveloped plans, neither housing and job-creating applicants, nor supporters of public facilities or infrastructure improvement projects proposed by other County departments or public agencies, can confidently assess project consistency with the Draft 2045 CAP, nor could a project demonstrate that it meets the requirements of the Draft 2045 CAP checklist. This is another example of why the Draft 2045 CAP should not be substantially revised, as well as excluded from the General Plan.</p> | <p>O15-60</p> |
| <p>Furthermore, the performance criteria listed in Appendix E are mostly established on a county-wide basis, yet they are connected to the checklist items in Appendix F for specific projects (e.g. Measure T6 lists County-wide goals for EV sales and number of EVCS installed but does not indicate project-specific goals for this measure).</p> | <p>O15-61</p> |
| <p>In this way, the Draft 2045 CAP does not present a viable basis for a project to demonstrate consistency with the Draft 2045 CAP.</p> | <p>O15-62</p> |
| <p>As discussed at length, the County should consider projects on an individual basis, fully consider foreseeable GHG project-level impacts based on core state law GHG reduction mandates that comprise the vast majority of the quantified GHG reductions as documented in the Draft 2045 CAP, and then identify feasible additional GHG reductions and mitigation measures based on specific project information as well as ever-evolving technologies and practices.</p> | <p>O15-63</p> |
| <p>Only this modified Draft 2045 CAP General Plan approach can be implemented consistent with, and in furtherance of, the many other housing, jobs, conservation, infrastructure, and other priorities included in existing, approved General Plan, Area Plans, and Community Plans.</p> | <p>O15-64</p> |
| <p>The many infeasible, one-size-fits-all measures in the Draft 2045 CAP should be removed from the General</p> | <p>O15-65</p> |

Plan, but can potentially be maintained as a list, outside the General Plan, of potentially feasible GHG reduction measures for consideration on project-by-project basis, and in the context of evaluating potential future ordinances as state law and feasible technologies and practices continue to evolve.

O15-65
(cont.)

Considerations

In closing, Tejon Ranch Company thanks the County for providing the opportunity for us to share our deep and broad concerns regarding the Draft 2045 Climate Action Plan. The Company takes seriously its responsibility to lead in addressing the critical climate and housing crises facing our County. We have consistently demonstrated through our substantial and voluntary land conservation efforts, the employment of best practices in environmentally sensitive and sustainable community planning and design and our entering the legally-binding, publicly transparent Climate Resolve Agreement, the Company's unrivaled commitment to achieving Net Zero GHG emissions for our Centennial project and enabling the County to successfully address the dire housing crisis in a safe, resilient, and sustainable way. We respectfully submit that the County should recognize Centennial as a model for achieving net zero GHG emissions, just as CARB has, and not impede or otherwise take action to add costs, uncertainties, or new or inconsistent GHG reduction obligations for the project. We further ask that the County give serious and thoughtful consideration to addressing the following problematic core elements of the Draft 2045 CAP, and that the County stay on track to provide for the housing and economic growth that is consistent with the approved General Plan, as carefully determined by the Board of Supervisors to best serve all Angelinos.

O15-66

O15-67

O15-68

O15-69

- The Draft 2045 CAP should be substantially revised into an aspirational document that focuses solely on feasible GHG reduction measures which are within the jurisdiction of the County to implement, operate in full alignment and support of the County's economic development, housing, and infrastructure goals, and do not increase the cost, time, or litigation risks for the County or applicants.
- The Draft 2045 CAP should separately quantify GHG reductions from the successful implementation of statewide laws and mandates, and calculate what additional measures, if any, should be undertaken by the County, while allowing projects to reduce their GHG emissions through CARB-approved offsets and other mitigation approaches.
- The Draft 2045 CAP inventory and GHG reduction methodology should pivot into recognition that retaining County residents and jobs, and providing the necessary expansions of housing, economic development and infrastructure needed to restore economic opportunity and upward mobility to County residents, is a more effective GHG strategy than exporting jobs to states and countries with lower standards and practices for reducing GHG impacts.

O15-70

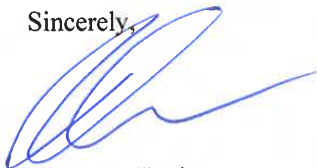
O15-71

O15-72

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| <p>community planning and design and our entering the legally-binding, publicly transparent Climate Resolve Agreement, the Company's unrivaled commitment to achieving Net Zero GHG emissions for our Centennial project and enabling the County to successfully address the dire housing crisis in a safe, resilient, and sustainable way.</p> | <p>O15-66 (dupl.)</p> |
| <p>We respectfully submit that the County should recognize Centennial as a model for achieving net zero GHG emissions, just as CARB has, and not impede or otherwise take action to add costs, uncertainties, or new or inconsistent GHG reduction obligations for the project.</p> | <p>O15-67 (dupl.)</p> |
| <p>We further ask that the County give serious and thoughtful consideration to addressing the following problematic core elements of the Draft 2045 CAP, and that the County stay on track to provide for the housing and economic growth that is consistent with the approved General Plan, as carefully determined by the Board of Supervisors to best serve all Angelinos.</p> | <p>O15-68 (dupl.)</p> |
| <ul style="list-style-type: none"> The Draft 2045 CAP should be substantially revised into an aspirational document that focuses solely on feasible GHG reduction measures which are within the jurisdiction of the County to implement, operate in full alignment and support of the County's economic development, housing, and infrastructure goals, and do not increase the cost, time, or litigation risks for the County or applicants. | <p>O15-70 (dupl.)</p> |
| <ul style="list-style-type: none"> The Draft 2045 CAP should separately quantify GHG reductions from the successful implementation of statewide laws and mandates, and calculate what additional measures, if any, should be undertaken by the County, while allowing projects to reduce their GHG emissions through CARB-approved offsets and other mitigation approaches. | <p>O15-71 (dupl.)</p> |
| <ul style="list-style-type: none"> The Draft 2045 CAP inventory and GHG reduction methodology should pivot into recognition that retaining County residents and jobs, and providing the necessary expansions of housing, economic development and infrastructure needed to restore economic opportunity and upward mobility to County residents, is a more effective GHG strategy than exporting jobs to states and countries with lower standards and practices for reducing GHG impacts. | <p>O15-72 (dupl.)</p> |

Thank you for your consideration of these important items.

Sincerely,



Marc W. Hardy
Senior Vice President and General Counsel

2.3.2.15 Letter O15: Tejon Ranch Company

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. Recirculated Draft PEIR-focused comments are addressed below.

- O15-1 The comment discusses the Tejon Ranch development but does not raise any significant environmental issues or inadequacies associated with the Recirculated Draft PEIR; no response is required pursuant to CEQA Guidelines section 15088(a).
- O15-2 The comment discusses the Tejon Ranch development and its project-level mitigation measures but does not raise any significant environmental issues or inadequacies associated with the Recirculated Draft PEIR; no response is required pursuant to CEQA Guidelines section 15088(a).
- O15-3 In response to the comment’s statement regarding the General Plan, please refer to General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. The County has chosen to prepare and utilize the Revised Draft 2045 CAP as an implementation program for the Air Quality Element of the General Plan and would adopt the Revised Draft 2045 CAP by General Plan amendment together with proposed revisions to the Air quality Element. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP.

As an implementation program for the Air Quality Element, the Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement; General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in order to achieve Countywide strategies, goals, and actions to reach emissions reductions targets of the Revised Draft 2045 CAP. A subcomponent of the Revised Draft 2045 CAP implementation program is the Checklist, Appendix F, which the County will only utilize to determine the consistency of future project applicants who wish to streamline the GHG impact analysis of their project with the Revised Draft 2045 CAP pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). If a project is consistent with the General Plan and can demonstrate consistency with the Revised Draft 2045 CAP by completing the Checklist, the project would be considered consistent with the Revised Draft 2045 CAP and eligible for CEQA streamlining of its project-level GHG analysis. (Recirculated Draft PEIR, p. 2-40.)

However, demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis. The Checklist provides a list of Tier 1 measures, which are required for all discretionary private development projects to demonstrate consistency with the Revised Draft 2045 CAP unless alternative measures are proposed. Nothing beyond the Tier 1 measures is required for project applicants to streamline their CEQA GHG impacts analysis. Projects that do not intend to streamline their GHG impact analysis do not need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Please refer to General Response 3 for further discussion regarding the Revised Draft 2045 CAP processes applicable to various project applicants.

Responding to the comment's point about amendments to the General Plan, the Revised Draft 2045 CAP is a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with the state's GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.) The Revised Draft 2045 CAP recognizes that future amendments to CAP measures may be needed to address future federal and state regulations. (Revised Draft 2045 CAP, p. 1-7.) Amendments to the Revised Draft 2045 CAP would represent a change to the County's General Plan implementation program and would be a discretionary action subject to CEQA compliance.

In response to the comment's concern regarding potential litigants, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O15-4 It is true the Revised Draft 2045 CAP would create new County obligations – which include specific County policies, programs, or tools to support long-range planning – necessary to achieve the emissions reduction targets consistent with AB 1279 and the 2022 Scoping Plan. The Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan Amendment together with proposed revisions to the Air Quality Element. Please refer to General Response 2 for further discussion on the relationship between the Revised Draft 2045 CAP and the County's General Plan.

Regarding the comment's allegation that the Revised Draft 2045 CAP would expand litigation risks under CEQA, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be

imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O15-5 The comment incorrectly asserts that any project that fails to comply with all CAP measures and actions would conflict with an environmental component of the General Plan, a significant and unavoidable land use impact, and would have a significant GHG impact. As stated above, since the Revised Draft 2045 CAP is an implementation program for the Air Quality Element of the General Plan and would be adopted by General Plan Amendment together with proposed revisions to the Air Quality Element, General Plan consistency would be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP.

Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis with the Revised Draft 2045 CAP pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Projects that do not intend to streamline their GHG impact analysis do not need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

Please refer to General Response 3 for further discussion regarding the Revised Draft 2045 CAP processes applicable to various project applicants.

- O15-6 Regarding the comment's point about alternative CEQA compliance pathways, please see Response to Comment O15-3, explaining the processes applicable to project applicants. To reiterate, projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Such project applicants may utilize an appropriate CEQA compliance pathway tailored to their projects. Please refer to General Response 2 regarding General Plan conflict issues, and General Response 3 for more discussion regarding implementation of the Revised Draft 2045 CAP's measures and actions and the processes applicable to various project applicants.

- O15-7 The Revised Draft 2045 CAP has been revised such that project applicants do not need to demonstrate compliance with the Revised Draft 2045 CAP measures and complete "infeasibility" findings if they do not intend to streamline their CEQA GHG impacts analysis. Projects that do not intend to streamline their GHG impact analysis do not need to demonstrate consistency with the Checklist. Such projects would be

required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.

Only project applicants that wish to streamline their GHG impact analysis with the Revised Draft 2045 CAP pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b) must complete the Checklist to demonstrate consistency with the Revised Draft 2045 CAP. The Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis. (See Appendix F, p. F-5 et seq.) The Checklist provides a list of Tier 1 measures, which are required for all discretionary private development projects unless alternative measures are proposed to demonstrate consistency with the Revised Draft 2045 CAP. Nothing beyond the Tier 1 measures is required for project applicants to streamline their CEQA GHG impacts analysis. Please refer to General Response 3 for further discussion as to the required elements of the Revised Draft 2045 CAP for certain projects.

Regarding the comment's concern about future CEQA and General Plan compliance lawsuits, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O15-8 The Housing Element serves as a policy guide to address the comprehensive housing needs of the County. Its focus is to ensure decent, safe, sanitary, and affordable housing for current and future residents. It also focuses on equitable development to counter historical residential segregation and environmental injustice. The Housing Element sets forth implementing actions that encourage the private sector to build and improve housing. To that end, a climate action plan was identified as a program of the Housing Element. The Revised Draft 2045 CAP includes a streamlined procedure for environmental clearance for certain projects, which could include individual housing projects, thereby reducing the time and expense needed for individual environmental clearances. Qualifying projects will be able to rely on the Revised Draft 2045 CAP for their GHG emissions analysis under CEQA. Housing projects have been able to successfully integrate climate action as identified in the CARB's 2022 Scoping Plan. In response to the comment's concern about the Revised Draft 2045 CAP's relationship in the General Plan and alleged use of the Revised Draft 2045 CAP to stop housing development, please refer to General Response 2.
- O15-9 The Revised Draft 2045 CAP includes feasible, clear, and implementable measures that allow for implementation of County goals related to infrastructure, economic development, and housing. The Revised Draft 2045 CAP's measures and actions support the County's goals related to economic development, housing, and

infrastructure: general goals and policies relevant to the Revised Draft 2045 CAP include those related to infill development (Goal LU 4), vibrant, livable and healthy communities that contain a mix of community-serving uses (Goal LU 5), and land use patterns and community infrastructure that promote health and wellness for all neighborhoods (Goal LU 10). For further discussion regarding the Revised Draft 2045 CAP measures and how they would achieve Countywide GHG reduction targets consistent with the state's GHG reduction targets and related legislative actions, including AB 1279 and the 2022 Scoping Plan, please refer to General Response 5.

See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. Also see General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects.

O15-10 Implementation of the Revised Draft 2045 CAP into the General Plan would not hinder the ability to implement long-term housing law compliance obligations. The Revised Draft 2045 CAP is a policy document that would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP.

In fact, the Revised Draft 2045 CAP focuses on the importance of housing availability and seeks to balance encouragement for increased housing supply with GHG reductions. The County prioritizes strategies that both invest in and support frontline communities, which include providing specific incentives and subsidies for affordable housing developments and implementing other initiatives that integrate equity in ways that help reverse the trends of discrimination and disinvestment. For example, Action ES5.1 requires identification of new requirements for new development to reduce GHG emissions from energy use, transportation, and other sources that includes affordable housing considerations in these requirements and supporting measures to maintain housing affordability. Measure T1 seeks to increase housing opportunities that are affordable and near high-quality transit areas to reduce VMT. Action T1.2 directs the County to develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. As such, the Revised Draft 2045 CAP implements measures and actions that would help fulfill the County's housing law compliance obligations.

O15-11 The Revised Draft 2045 CAP, once finalized and approved, would require an amendment to the Los Angeles County General Plan 2035 to replace the existing implementation strategy of the Air Quality Element, known as the Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP). The Revised Draft 2045 CAP builds on previous climate action work from the 2020 CCAP, adopted in October 2015 as a subcomponent of the Air Quality Element of the Los Angeles County General Plan 2035 and includes new emissions reduction targets consistent with AB 1279 and the 2022 Scoping Plan.

In addition to the proposed Revised Draft 2045 CAP, the proposed project evaluated in the Recirculated Draft PEIR includes proposed revisions to the General Plan's Air Quality Element. The revisions to the General Plan's Air Quality Element are set forth in Table 2-1, *Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element*, and Table 2-2, *Proposed Updates to the Los Angeles County General Plan 2035 Implementation Program*, in Chapter 2, Project Description. The Revised Draft 2045 CAP is consistent with these revisions and helps implement them.

Future amendments to the Revised Draft 2045 CAP would represent a change to the County's General Plan implementation program and would be a discretionary action subject to CEQA compliance. For further discussion regarding the relationship between the Revised Draft 2045 CAP and the County's General Plan, please refer to General Response 2.

- O15-12 The County notes the comment's examples of other jurisdictions' actions in adopting their own climate action plans. For a specific response regarding the County of San Diego's Climate Action Plan and how it differs from the County's 2045 CAP, please refer to Response to Comment O5b-36. The Revised Draft 2045 CAP is an implementation program of the Air Quality Element of the County's General Plan and will be adopted by General Plan Amendment together with proposed revisions to the Air Quality Element. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP. Please refer to General Response 2 for further discussion of the relationship between the Revised Draft 2045 CAP and the County's General Plan.

Regarding the comment's concerns regarding future litigation, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O15-13 This comment does not raise significant environmental issues regarding the Recirculated DEIR and no further response is required pursuant to CEQA Guidelines section 15088(a). Also, please note that the "currently adopted CAP" is no longer in effect.

O15-14 Regarding the comment’s claim that the Revised Draft 2045 CAP would impose mandates on development and new projects, the comment fails to recognize the difference between Revised Draft 2045 CAP performance goals (as identified in the Revised Draft 2045 CAP strategies, measures, and actions) and the Checklist’s requirements for new projects. First, the performance goals in the Revised Draft 2045 CAP are *Countywide goals*, not requirements or mandates for individual projects. All project-level requirements for CEQA streamlining are identified in the Checklist itself. There are no additional streamlining requirements for new projects that are not included in the Checklist. Please see General Response 3 for additional discussion. Second, as explained in the Checklist instructions (Appendix F, p. F-5 to F-15), the Checklist is clear about what is required of projects that choose to streamline their CEQA GHG impact analysis. (See Appendix F, p. F-10 to F-12.) The Checklist provides a list of “Tier 1” measures, which are required for all discretionary projects in order to use CEQA streamlining for GHG impacts, and “Tier 2” measures, which are not mandatory, but encouraged for all discretionary projects to implement.

Implementation of the Revised Draft 2045 CAP into the General Plan would not hinder the ability to implement long-term housing law compliance obligations. The Revised Draft 2045 CAP is a policy document that would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP.

In fact, the Revised Draft 2045 CAP focuses on the importance of housing availability and seeks to balance encouragement for increased housing supply with GHG reductions. The County prioritizes strategies that both invest in and support frontline communities, which include providing specific incentives and subsidies for affordable housing developments and implementing other initiatives that integrate equity in ways that help reverse the trends of discrimination and disinvestment. For example, Action ES5.1 requires identification of new requirements for new development to reduce GHG emissions from energy use, transportation, and other sources that includes affordable housing considerations in these requirements and supporting measures to maintain housing affordability. Measure T1 seeks to increase housing opportunities that are affordable and near high-quality transit areas to reduce VMT. Action T1.2 directs the County to develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. As such, the Revised Draft 2045 CAP implements measures and actions that would help fulfill the County’s housing law compliance obligations.

O15-15 Regarding the comment’s concern about the alleged mandates of the Revised Draft 2045 CAP and their quantification, please refer to General Response 2 for discussion regarding the Revised Draft 2045 CAP’s relation to the General Plan and General Response 3 for a discussion regarding the application of the Checklist to project applicants. Quantification of the Revised Draft 2045 CAP strategies, measures and actions are discussed in detail in General Response 5.

- O15-16 Please refer to General Response 3 for a discussion regarding the application of the Checklist to project applicants. See General Response 5, which addresses the obligation of the Revised Draft 2045 CAP to quantify GHG emission reductions for strategies, measures, and actions. The comment’s concern regarding potential litigation challenging future projects is speculative at this time and there is no evidence presented by the comment suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged.
- O15-17 The Revised Draft 2045 CAP does not present poorly defined, unclear measures and performance standards; please refer to General Response 3 regarding the application of the Checklist to project applicants and which addresses the Revised Draft 2045 CAP’s GHG reduction measures. Regarding the comment’s concerns regarding future litigation, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. Any project approval is subject to legal challenge and there is no evidence presented by the commenters suggesting that it is more likely that future projects implementing the Revised Draft 2045 CAP would be challenged. The comment raising potential legal challenges does not raise significant environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).
- O15-18 Regarding the commenter’s claim that all future projects must meet a job density of 300 jobs per acre and that projects that do not achieve this standard would be inconsistent with the Revised Draft 2045 CAP, this is not a mandate for individual projects. A job density of 300 jobs per acre is not a requirement of the Checklist or the Revised Draft 2045 CAP for new projects. As discussed in General Response 3, Draft 2045 CAP measure T2 (Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use) includes a *Countywide* performance goal of 300 jobs per acre by 2030; this is a goal for the entire County to meet by 2030 and represents an average value for Countywide job density. For projects that wish to streamline their GHG impacts evaluation under CEQA, the Checklist requires nothing in the way of job density for new projects and Measure T2 is also not a requirement for demonstrating consistency with the Revised Draft 2045 CAP. See General Response 3 for additional discussion.
- O15-19 The comment incorrectly asserts that a project’s failure to meet a job density of 300 jobs per acre would be deemed to conflict with an Recirculated Draft PEIR sufficiently analyzes and mitigates the environmental component of the General Plan, and that such projects would have significant and unavoidable GHG impacts that would trigger the need for an EIR. As discussed in response to comment O15-18 above and in General Response 3, the Checklist does not mandate that all new projects achieve 300 jobs per acre. Checklist item #12, *TIER 2: Achieve a High Jobs/Housing Balance*, is a voluntary Tier 2 item that encourages projects with nonresidential development to “*support the County’s goal to achieve a job density of 300 jobs per acre*” (emphasis

added). A project that could not meet this metric could still use the Checklist to streamline its GHG impact analysis under CEQA.

Further, the Checklist would *not* be used as a tool for evaluating a project's consistency with the County's General Plan. General Plan consistency will be determined by comparing a future project to the Air Quality Element goals and policies rather than with the detailed implementation programs identified in the Revised Draft 2045 CAP. Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. These projects can demonstrate CEQA compliance in the most appropriate way tailored to the project, which may not necessitate a full EIR. Please see General Response 3 for further discussion regarding the process for project applicants.

- O15-20 Regarding the commenter's claim that all future projects must meet a job density of 300 jobs per acre and that projects that do not achieve this standard would be inconsistent with the Revised Draft 2045 CAP, a job density of 300 jobs per acre is not a requirement of the Checklist or the Revised Draft 2045 CAP for new projects. Please refer to responses to comments O15-18 and O15-19 above, which explain that projects that do not intend to streamline their GHG impact analysis need not demonstrate consistency with the Checklist. Such projects can demonstrate CEQA compliance in the most appropriate way tailored to the project, which may not necessitate what the comment calls "a costly CEQA compliance process." Also see General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects.

With regard to the commenter's concerns regarding CEQA litigation, while potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. measures and actions. Also see General Response 2, which addresses concerns regarding third parties initiating lawsuits against the County and future project applicants. This comment raising potential litigation concerns does not raise environmental issues and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

- O15-21 Regarding the comment's concern regarding GHG calculations, see General Response 5, which addresses quantification, estimated costs, and sources of funding for the Revised Draft 2045 CAP measures. Regarding the commenter's claim that all future projects must meet a job density of 300 jobs per acre and that projects that do not achieve this standard would be inconsistent with the Revised Draft 2045 CAP, a job density of 300 jobs per acre is not a requirement of the Checklist or the Revised Draft 2045 CAP for new projects. Please refer to responses to comments O15-18 and O15-19 above, along with General Response 3, which addresses how the Revised Draft

2045 CAP and 2045 Checklist applies to development projects. See also General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. Also, the County has added a new subsection in Revised Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, “Guidance for Quantifying GHG Reductions from Alternative Measures” to help project applicants choose this pathway. This new section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative project emissions reduction measure must achieve. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail.

O15-22 Regarding the commenter’s claim that all future projects must meet a job density of 300 jobs per acre and that projects that do not achieve this standard would be inconsistent with the Revised Draft 2045 CAP, a job density of 300 jobs per acre is not a requirement of the Checklist or the Revised Draft 2045 CAP for new projects. Please refer to responses to comments O15-18 and O15-19 above, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects. Refer to General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. Also see General Response 2, which addresses concerns regarding potential lawsuits against the County and future project applicants. The comment regarding economic growth and jobs does not raise significant environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).

O15-23 The Recirculated Draft PEIR sufficiently analyzes and mitigates the environmental consequences of the Revised Draft 2045 CAP measures and actions. In response to the comment’s concern related to consequences of the Revised Draft 2045 CAP associated with the County’s General Plan, community plans, area plans, and specific plans, the comment does not allege any specific conflicts. Section 3.12, *Land Use and Planning*, of the Recirculated Draft PEIR evaluates land use and planning issues to determine whether the Revised Draft 2045 CAP would result in a significant impact related to a physical division of an established community or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. As described in Section 3.12.2.3, the Revised Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP. The Recirculated Draft PEIR concluded that projects facilitated by the Revised Draft 2045 CAP would have less-than-significant impacts related to a conflicting with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.

- O15-24 See Response O15-23 and General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.
- O15-25 Regarding the commenter’s claim that all future projects must meet a job density of 300 jobs per acre and that projects that do not achieve this standard would be inconsistent with the Revised Draft 2045 CAP, a job density of 300 jobs per acre is not a requirement of the Checklist or the Revised Draft 2045 CAP for new projects. Please refer to responses to comments O15-18 and O15-19 above, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects.
- O15-26 As explained in General Response 3, project applicants that do not intend to streamline their GHG impact analysis need no longer demonstrate consistency with the Checklist, which would *not* be used as a tool for evaluating a project’s consistency with the County’s General Plan. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist.
- The comment incorrectly asserts that a project’s failure to meet a job density of 300 jobs per acre would be deemed to conflict with the General Plan, and that such projects would have significant and unavoidable GHG impacts. As discussed, the Checklist does not mandate that all new projects achieve 300 jobs per acre. Please refer to responses to comments O15-18 and O15-19 above, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.
- O15-27 Please refer to responses to comments O15-18 and O15-19 above, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.
- O15-28 Please refer to responses to comments O15-18 and O15-19 above, along with General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. See response to comment O15-26 above.
- O15-29 In response to the comment’s point about the aspirational nature of the Revised Draft 2045 CAP and relation to the General Plan, the Revised Draft 2045 CAP is an implementation program of the Air Quality Element of the County’s General Plan. In California, local governments regulate many activities that contribute to GHG emissions and air pollutants, including land use and transportation planning, zoning and urban growth decisions, implementation of building codes and other standards, and control of municipal operations. Local governments have typically addressed climate change either in policies in the general plan itself, or through adoption of a CAP.

Project applicants that do not intend to streamline their GHG impact analysis need no longer demonstrate consistency with the Checklist, which would *not* be used as a tool for evaluating a project's consistency with the County's General Plan. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Project applicants that do not wish to streamline their project would be required to thoughtfully craft and adopt measures that must be implemented to mitigate project-specific GHG emissions impacts.

Please refer to General Response 2 for further discussion of the relationship between the Revised Draft 2045 CAP and the County's General Plan and to General Response 3 for further discussion regarding the Revised Draft 2045 CAP processes applicable to various project applicants. Please also refer to General Response 4 for further discussion about the voluntary GHG offset credits (GHG offsets) as a strategy for achieving the County's GHG reduction targets.

- O15-30 In response to the comment's point about project-level measures to mitigate GHG emissions impacts, the County has developed the Checklist, Appendix F, as a subcomponent of the implementation program. Per Revised Draft 2045 CAP revisions, the Checklist would *not* be used as a tool for evaluating a project's consistency with the County's General Plan. Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. This tailored, project-specific CEQA analysis would be required to include feasible mitigation measures to lessen the project's significant GHG impacts.

Please refer to General Response 3 for further discussion regarding the Revised Draft 2045 CAP processes applicable to various project applicants.

- O15-31 Please refer to General Response 3 for further discussion regarding the Revised Draft 2045 CAP processes applicable to various project applicants. This comment does not raise significant environmental issues regarding the Revised Draft 2045 CAP Recirculated DEIR and no further response is required pursuant to CEQA Guidelines section 15088(a).
- O15-32 The Revised Draft 2045 CAP does not preclude a project from using GHG offsets to demonstrate net zero emissions (or carbon neutrality) or to attain any other CEQA significance threshold. In other words, a project can undergo its own CEQA review of GHG impacts and determine such impacts would be less than significant based on substantial evidence and valid CEQA mitigation, which (as previous projects have demonstrated) may include the use of voluntary GHG offset credits. The Revised Draft 2045 CAP does not prohibit this approach. See Revised Draft 2045 CAP

Appendix F, page F-13 for more discussion. However, for projects intending to use the Revised Draft 2045 CAP CEQA Streamlining Checklist to streamline CEQA review of their GHG impacts, the use of GHG offsets is not an option. For further discussion, see General Response 4, which addresses concerns regarding the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist for streamlining CEQA review of a project's GHG impacts.

O15-33 See General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program.

O15-34 and O15-35 As discussed above in Response to Comment O15-32, the Revised Draft 2045 CAP does not preclude a project from using GHG offsets to demonstrate net zero emissions (or carbon neutrality) or to attain any other CEQA significance threshold. See General Response 4, which addresses concerns regarding the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure Checklist for streamlining CEQA review of a project's GHG impacts.

O15-36 See General Response 5, which addresses quantification, estimated costs, and sources of funding for the Revised Draft 2045 CAP measures. Also see General Response 6, which addresses concerns regarding the proposed Offsite GHG Emissions Reduction Program. As stated, the Revised Draft 2045 CAP presents a *framework* for the Offsite GHG Reduction Program and does not represent the program itself. As stated on page F-35, the actual program will be developed after the Revised Draft 2045 CAP is adopted. Given that the program itself has not been developed, it would be speculative to estimate the implementation costs of such a program at this point. Further, the Offsite GHG Reduction Program itself is not a Revised Draft 2045 CAP measure that is quantified for GHG reductions and it is not relied upon to achieve the Revised Draft 2045 CAP's GHG emission reduction targets. Use of the Offsite GHG Reduction Program is not mandatory for project applicants wishing to streamline environmental review of their project's GHG impacts using the Revised Draft 2045 CAP's Recirculated Draft PEIR pursuant to CEQA Guidelines section 15183.5(b).

O15-37 The Revised Draft 2045 CAP does not undermine the County Board of Supervisors' resolution endorsing net zero project outcomes. See General Response 4, which addresses concerns regarding the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist for streamlining CEQA review of a project's GHG impacts.

O15-38 In response to this comment, the County has revised the Checklist to change the "net-zero" GHG requirement with a "zero GHG" requirement as follows.

2045 CAP Checklist Screening Criteria: Projects may skip the Demonstrate Compliance with the CEQA Streamlining 2045 CAP Measure and Action

Consistency Requirements section of Table F-1 below if they meet the following criteria:

- *If the project would achieve **net-zero GHG emissions** compared to existing on-site development at the project site, provided that existing on-site development is similar to the proposed project and that GHG emissions from existing on-site development are not substantially larger than emissions from the proposed project, the project is considered consistent with the 2045 CAP and the analysis is complete.*

Net-zero GHG emissions means that the project's GHG emissions from construction and operational activities occurring at full buildout would result in zero total GHG emissions on an annual basis. In other words, all GHGs emitted to the atmosphere during construction and operation by a project are balanced completely by GHG sequestration and removal over each calendar year period. Construction GHG emissions should be amortized for the project (typically 30 or 40 years) and added to the annual full buildout operational emissions to determine total annual emissions. Net zero GHG emissions for a project does not consider the difference in GHG emissions from between existing conditions or existing uses at the project site and the emissions from construction and operation of the proposed project is zero. For example, if a project emits 1,500 MTCO₂e per year for both construction and operation, but includes the planting of enough new trees to sequester 1,500 MTCO₂e per year, the project would achieve net zero GHG emissions. existing on-site uses at the project site are 3,000 metric tons of carbon dioxide equivalent (MTCO₂e) per year, and if the project emits fewer than 3,000 MTCO₂e per year through both construction and operations, it would achieve net zero GHG emissions. Existing conditions constitute the project's CEQA baseline for GHG impacts.

The net zero criterion can only be applied if existing on-site development is similar to the proposed project. This means that the existing land use type and the project's land use type(s) are reasonably similar, subject to the County's discretion. For example, a mixed-use project replacing an office land use would be considered similar. However, a mixed-use project replacing an industrial facility or a distribution center would not be considered similar.

Additionally, this criterion can only be applied if emissions from existing on-site development are not substantially larger than emissions from the proposed project, subject to the County's discretion. For example, a retail project with low emissions replacing a large office building with high emissions could not use the net zero criterion, producing as many emissions as the large office building; such a project would have to produce lower emissions than the large office building to be consistent with the 2045 CAP. Although the 2045 CAP intends to replace high-emitting land use types (such as oil and gas facilities) with low-emissions land use types (such as mixed-use transit-oriented development) to

~~reduce emissions overall, it does not intend to make such replacements without reducing emissions compared to existing uses, which a net-zero emissions criterion would not necessarily facilitate.~~

~~To demonstrate that the project achieves net-zero GHG emissions compared to existing on-site development at the project site, that the existing land use type and the project's land use type(s) are reasonably similar, and that emissions from existing on-site development are not substantially larger than emissions from the proposed project, the applicant must submit a comprehensive quantitative project-specific analysis of all GHG emissions, sinks, and removals from construction and full buildout operations, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for projects. If the project meets this criterion these criteria, the project does not need to complete Table F-1 below and the analysis is complete. (Revised Draft 2045 CAP Appendix F, p. F-8).~~

The commenter's claim that the Checklist does not create a compliance pathway for projects which increase land use densities as called for in the 2021-2029 Housing Element is incorrect. To the contrary, a proposed mixed-use project which achieves zero GHG emissions for operations would indeed qualify for the zero GHG screening criterion. The existing use is not part of this zero GHG screening criterion. The reason for this is that the current use may choose to relocate to another place in the County and continue to emit GHGs; the new mixed-use project would therefore not actually "remove" the GHG emissions produced by the existing building from the County entirely. This approach is consistent with the CARB 2022 Scoping Plan, which states, "Lead agencies should consider whether there is substantial evidence that the GHG emissions generated by existing uses of the project site will cease to exist as a direct result of the proposed project and will not merely occur at a different location after the proposed project is developed."³⁴

See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. See General Response 4, which addresses concerns regarding the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist for streamlining CEQA review of a project's GHG impacts. This comment does not raise significant environmental issues regarding the Recirculated Draft PEIR and no further response is required pursuant to CEQA Guidelines section 15088(a).

- O15-39 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. The Revised Draft 2045 CAP is not a regulatory document but is rather a plan-level framework for the County to implement to achieve Countywide GHG reduction targets for 2030, 2035, and 2045 that are consistent with

³⁴ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Pages 24. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed July 2023.

the state's GHG reduction targets and related legislative actions. (Recirculated Draft PEIR, p. 2-8.) Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis.

Also see General Response 3, which addresses how the Revised Draft 2045 CAP and 2045 Checklist applies to development projects, as well as the feasibility of Revised Draft 2045 CAP measures and actions. The comment does not provide specific evidence as to why the Revised Draft 2045 CAP would make master planned community projects and infrastructure/public projects inconsistent with the County's General Plan, such that a specific response cannot be provided.

- O15-40 The performance goals of Measure E5 are to increase the use of alternative water sources such that 25 percent of Unincorporated Los Angeles County demand is met by recycled water, graywater, or potable reuse by 2030, 50 percent by 2035, and 90 percent by 2045. The commenter is incorrect that the Revised Draft 2045 CAP does not provide a pathway to achieve these goals. Actions E5.1 through E5.5 are identified to achieve these goals. For example, Action E5.1 requires dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems. Action E5.3 requires the use of recycled water and graywater for industrial purposes where recycled water is available. Action E5.5 requires partnering with the County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects.

The comment does not provide specific evidence as to why this measure is infeasible, such that a specific response cannot be provided.

- O15-41 As discussed in General Response 3, the Checklist does not mandate that all new projects ensure that 90 percent of their water demand is met by alternative water sources or that 80 percent of agricultural irrigation uses be supplied exclusively by local water sources. Draft 2045 CAP Measure E5 includes a *Countywide* performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. Checklist item #21, *TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture*, is a voluntary Tier 2 item that encourages projects to implement water reuse strategies on-site through certain design elements such as using reclaimed water for outdoor uses and installing residential graywater systems. A project that could not meet this metric could still use the Checklist to streamline its GHG impact evaluation under CEQA.

Further, as discussed in General Response 3, in response to comments received, the County has revised the Checklist to clarify that the Checklist will be used only for projects that voluntarily wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b).

Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis under CEQA. Please refer to General Response 3, which addresses how the Revised Draft 2045 CAP and Checklist applies to development projects.

The comment does not provide specific evidence as to why this measure is unrealistic or technically infeasible and the examples given do not support the claim that these goals are legally or technically infeasible such that a specific response cannot be provided.

- O15-42 As discussed in General Response 3 and responses to comments O15-40 and O15-41 above, Revised Draft 2045 CAP Measure E5 includes a performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. For projects that wish to streamline their GHG impacts evaluation under CEQA, the Checklist requires nothing regarding water source types. While potential litigation challenging future projects is always a possibility, it is speculative at this time to presume that there would be imminent lawsuits challenging future projects. The comment raising potential legal challenges does not raise environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a).
- O15-43 The 2045 goal of Measure E5 is progressive and forward looking. This goal originally came from *OurCounty: Los Angeles Countywide Sustainability Plan* Goal 2, which has a target of sourcing 80 percent of Countywide water use locally (inclusive of all 88 cities). Measure E5 is legally feasible for the County to implement and the comment does not provide specific explanation or evidence as to why this measure is legally infeasible such that a specific response cannot be provided.
- O15-44 As discussed above, Measure E5 is technically and scientifically feasible for the County to implement. The comment does not provide specific evidence as to why this measure is technically or scientifically infeasible and the examples given do not support the claim that these goals are technically or scientifically infeasible. The comment does not specify what technical, scientific and regulatory compliance reasons or evidence that the technologies needed to achieve the goals of Measure E5 would concentrate nitrate and other residual chemicals in the treated water supply, such that a specific response cannot be provided. However, see Response O2-5, explaining that all dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems would meet regulatory standards for nitrate concentrations in septic system effluent.
- O15-45 As discussed above, Measure E5 is feasible for the County to implement. The comment does not provide specific evidence as to why this measure is technically or

scientifically infeasible and the examples given do not support the claim that the goals of Measure E5 are technically infeasible, such that a specific response cannot be provided.

- O15-46 As discussed in General Response 3 and responses to comments O15-40 and O15-41 above, Revised Draft 2045 CAP Measure E5 includes a performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. For projects that wish to streamline their GHG impacts evaluation under CEQA, the Checklist requires nothing regarding water source types. Further, the County has revised the Checklist to clarify that the Checklist will be used only for projects that voluntarily wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis under CEQA. As such, there is nothing in Measure E5 that would conflict with the County's Housing Element. Also see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan.
- O15-47 As discussed in General Response 3 and responses to comments O15-40 and O15-41 above, Revised Draft 2045 CAP Measure E5 includes a *Countywide* performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. Checklist item #21, *TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture*, is a voluntary Tier 2 item that encourages projects to implement water reuse strategies on-site through certain design elements such as using reclaimed water for outdoor uses and installing residential graywater systems. A project that could not meet this metric could still use the Checklist to streamline its GHG impact evaluation under CEQA. Contrary to the comment's claim, the County would not disapprove new housing that doesn't meet a 90 percent alternative water source target, and no housing laws would be violated. Please refer to General Response 3, which addresses how the Revised Draft 2045 CAP and Checklist applies to development projects.
- O15-48 As discussed in General Response 3 and responses to comments O15-40 and O15-41 above, Revised Draft 2045 CAP Measure E5 includes no project-level mandates. Checklist item #21, *TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture*, is a voluntary Tier 2 item that encourages projects to implement water reuse strategies on-site through certain design elements such as using reclaimed water for outdoor uses and installing residential graywater systems. Further, the County has revised the Checklist to clarify that the Checklist will be used only for projects that voluntarily wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new

development projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis under CEQA.

As discussed above, Measure E5 is legally feasible for the County to implement and the comment does not provide specific evidence as to why this measure would preclude the County from achieving its economic diversification goals, such that a specific response cannot be provided.

O15-49 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. As discussed above, Measure E5 is legally feasible for the County to implement and the comment does not provide specific evidence as to why this measure is legally and technically infeasible and the examples given do not support the claim that these goals are legally infeasible, such that a specific response cannot be provided.

O15-50 As discussed in General Response 3 and responses to comments O15-40 and O15-41 above, Revised Draft 2045 CAP Measure E5 includes a performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). This is not a project-level mandate. For projects that wish to streamline their GHG impacts evaluation under CEQA, the Checklist requires nothing regarding water source types. This would include a new water recycling project that would blend imported water with recycled water.

Further, the County has revised the Checklist to clarify that the Checklist will be used only for projects that voluntarily wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Demonstrating consistency with the Checklist is no longer mandatory for new projects but is rather a voluntary option that project applicants can use to streamline their project's GHG impact analysis under CEQA. As such, there is nothing in Measure E5 that would preclude a water recycling project from proceeding.

O15-51 As discussed in General Response 3 and responses to comments O15-40 and O15-41 above, Revised Draft 2045 CAP Measure E5 includes a performance goal that 90 percent of total Countywide water demand is met by recycled water graywater, or potable reuse by the year 2045 (25 percent by 2030 and 50 percent by 2035) (Revised Draft 2045 CAP Chapter 3, p. 3-54). The comment is incorrect that Measure E5 only accepts three alternative water source technologies. The three technologies cited in the comment; recycled water, graywater, and indirect potable reuse; are examples of technologies that could be used to achieve the performance goals of Measure E5. There is no requirement in the Revised Draft 2045 CAP to use only these three strategies, and no prohibition on other strategies. For reference, the full text of measure E5 is provided below:

Increase Use of Recycled Water and Graywater Systems: Increasing the use of alternative water sources (e.g., recycled water, graywater, indirect potable reuse)

reduces the demand for water sources with higher energy and carbon intensities (e.g., imported water, groundwater). (Emphasis added.) (Revised Draft 2045 CAP p. 3-57.)

- O15-52 The comment is correct that innovative new technologies will be required to achieve California’s long-term goal of carbon neutrality by 2045, as identified by CARB in the 2022 Scoping Plan.³⁵ However, the comment is incorrect that the Revised Draft 2045 CAP is hostile to new technologies. To the contrary, the Revised Draft 2045 CAP encourages new technologies, such as by incorporating new technologies that become more commercially available over the next 20–25 years to further reduce the County’s residual emissions, like zero-emission engine technologies for off-road equipment and heavy-duty on-road trucks (Revised Draft 2045 CAP pp. 3-11 to 3-12). Within the context of Measure E5’s performance goals for alternative water supply, the three technologies listed in Measure E5 (recycled water, graywater, and indirect potable reuse) are example technologies that could be used to achieve the performance goals of Measure E5. There is no requirement in the Revised Draft 2045 CAP to use only these three strategies, and no prohibition on other strategies or new technologies.

The County agrees with the comment that the County must take a leadership role in technology innovation, capital and company formation, advanced manufacturing, and marketing, to achieve its GHG reduction targets and its long-term GHG reduction goal of carbon neutrality by 2045. The Revised Draft 2045 CAP serves as a key leadership roadmap to achieve these targets, and supports the development and use of innovative new technologies to reduce GHG emissions.

- O15-53 As discussed above, Measure E5 is feasible for the County to implement. The comment does not provide specific evidence as to why this measure would frustrate the County’s climate change leadership opportunities or why the measure would cause people and jobs to move to other states and local jurisdictions..

- O15-54 to O15-57 See General Response 3, which addresses concerns regarding quantification of GHG emission reductions for each CAP measure and action included in the Checklist, or for each CEQA streamlining requirement in the Checklist (General Response 3, Section 2.2.3.2), and an adequate basis or guidance for demonstrating GHG reduction equivalency for Alternative Project Emissions Reduction Measures (General Response 3, Section 2.2.3.4). Regarding Alternative Project Emissions Reduction Measures, the County has added a new subsection in Revised Draft 2045 CAP Appendix F in Section F.2 under Step 4 titled, “Guidance for Quantifying GHG Reductions from Alternative Measures” to help project applicants choose this pathway. This new section provides guidance for how applicants can quantify the GHG reduction benefits of a Checklist streamlining requirement for an individual project to determine the amount of GHG emissions reduction that an alternative

³⁵ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Pages 5 and 9. Available at <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed July 2023.

project emissions reduction measure must achieve. See Revised Draft 2045 CAP Appendix F, pages F-13 to F-15 for more detail. Also see General Response 5, which addresses the obligation of the Revised Draft 2045 CAP to quantify GHG emission reductions for strategies, measures, and actions.

- O15-58 The commenter is incorrect by claiming that no project could be consistent with Checklist streamlining requirements #9, *Decarbonize Trucks*, or #10, *Incorporate Zero-Emission Technologies for Off-Road Vehicles & Equipment*, because the technology needed to comply with these requirements does not exist. The commenter provides no evidence to support the claims that there is a lack of technology prohibiting projects from meeting these requirements.

Checklist streamlining requirement #9 requires that projects: comply with any CALGreen Code requirement, County ordinance, Building Code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness for goods movement facilities and trucks; provide EVCSs at all new warehouse loading docks; and implement freight decarbonization technologies along highway corridors, among other things. EV charging infrastructure for trucks is readily available and commercially scalable.³⁶

According to CARB, as of July 2022, there are currently 148 models of zero emission vehicle (ZEV) trucks in North America available for order or pre-order and 135 models are actively being produced and delivered to customers.³⁷ According to the Global Drive to Zero Zero-Emission Technology Inventory (ZETI) tool, a database for ZEVs, there are 20 manufacturers with over 50 models of medium-duty trucks currently available and 17 manufacturers with over 30 models of heavy-duty trucks currently available in the U.S. and Canada as of July 2023.³⁸ CARB's adopted Advanced Clean Trucks (ACT) regulation requires manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035.³⁹ By 2035, zero-emission truck/chassis sales would need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales. The ACT rule also requires large employers including retailers, manufacturers, brokers and others are to report information about shipments and shuttle services to help identify future strategies to ensure that fleets purchase

³⁶ California Public Utilities Commission, 2022. CPUC Adopts Transportation Electrification Program To Help Accelerate Electric Vehicle Adoption. November 17. Available at <https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-adopts-transportation-electrification-program-to-help-accelerate-electric-vehicle-adoption>. Accessed July 2023.

³⁷ California Air Resources Board, 2023. Advanced Clean Fleets Regulation Summary: Accelerating Zero-Emission Truck Markets. Updated May 17, 2023. Available at <https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-summary>. Accessed July 2023.

³⁸ Global Drive to Zero, 2023. ZETI (Zero-Emission Technology Inventory). Available at <https://globaldrivetozero.org/tools/zeti/>. Accessed July 2023.

³⁹ California Air Resources Board, 2021. Advanced Clean Trucks Fact Sheet: Accelerating Zero-Emission Truck Markets. August 20. Available at https://ww2.arb.ca.gov/sites/default/files/2021-08/200625factsheet_ADA.pdf. Accessed July 2023.

available zero-emission trucks and place them in service where suitable to meet their needs.

CARB's new proposed Advanced Clean Fleets regulation would require several things including: 1) manufacturers sell only zero-emission medium- and heavy-duty vehicles starting in 2036; 2) beginning January 1, 2024, only zero-emission drayage trucks may register in the CARB Online System and all drayage trucks entering seaports and intermodal railyards would be required to be zero-emission by 2035; 3) high-priority fleets must purchase only ZEVs beginning 2024 and, starting January 1, 2025, must remove internal combustion engine vehicles at the end of their useful life as specified in the regulation; and 4) state and local government fleets, including city, county, special district, and State agency fleets, are required to ensure 50 percent of vehicle purchases are zero-emission beginning in 2024 and 100 percent of vehicle purchases are zero-emission by 2027.⁴⁰

According to the South Coast Air Quality Management District, the zero emission truck market is beginning to grow rapidly with many models entering the commercial market today and many major manufacturers announcing plans for future commercialization of battery-electric and hydrogen fuel cell electric trucks.⁴¹ Some notable manufacturer announcements include: Daimler Class 8 eCascadia, Navistar battery-electric Class 8, Volvo battery-electric VNR Class 8, Tesla's long range battery-electric tractor, BYD's battery-electric Class 6 and 8, Nikola's and Kenworth (in conjunction with Toyota) hydrogen fuel cell tractors, Sea Electric Class 4-8 battery-electric trucks, Lion Electric's Class 6-8 battery-electric trucks, Amazon's order of 100,000 Rivian's battery electric trucks, etc. NZE engines are currently available in two sizes: 11.9 liter and 8.9 liter. Major truck manufacturers offer these engines in different truck classes, including for class 8 regional haul and/or drayage truck operations.

Also see General Response 5, which addresses the obligation of the Revised Draft 2045 CAP to quantify GHG emission reductions for strategies, measures, and actions.

Regarding streamlining requirement #10, there are numerous pieces of electric and zero-emission construction equipment currently commercially available, including for

⁴⁰ California Air Resources Board, 2023. Advanced Clean Fleets Regulation Summary: Accelerating Zero-Emission Truck Markets. Updated May 17, 2023. Available at <https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-summary>. Accessed July 2023.

⁴¹ South Coast Air Quality Management District, 2021. WAIRE Implementation Guidelines: Rule 2305 – Warehouse Indirect Source Rule - Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program Rule 316 – Fees for Rule 2305. Available at <http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12>. Accessed July 2023.

generators, pumps, welders, forklifts, skid steer loaders, dumpers, cranes, air compressors, saws, excavators, rollers, front loaders, and others.⁴²⁻⁴³

Consequently, the technology is currently available for projects to comply with streamlining requirement #9 and #10, and available technologies will expand in response to CARB's rules and regulations in addition to market demand.

O15-59 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. The Revised Draft 2045 CAP will be revisited every five years after adoption to adjust policies and programs, where needed, to account for changes in technology and evolving federal and state regulations.

O15-60 The commenter is correct that the Revised Draft 2045 CAP includes several Checklist streamlining requirements that point to future regulations and ordinances that would implement the Revised Draft 2045 CAP measures and actions, such as the Zero Emission Vehicle Master Plan and future decarbonization ordinances. Before such regulations and ordinances are developed and adopted by the County, there is nothing with which projects intending to streamline their CEQA GHG impact analysis must comply. Therefore, in these instances, projects using the Checklist must only comply with currently adopted ordinances and requirements at the time of project approval. See General Response 3 for additional discussion.

In response to the comment's statement regarding demonstrating consistency with the Revised Draft 2045 CAP and Checklist, the Checklist would *not* be used as a tool for evaluating a project's consistency with the County's General Plan.

Demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project's GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist. Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Please see General Response 3 for further discussion regarding the process for project applicants and General Response 2 for discussion regarding the Revised Draft 2045 CAP's relation to the General Plan.

O15-61 The Revised Draft 2045 CAP's measures and actions do, as the commenter accurately observes, include Countywide performance goals. For example, Measure T6 has a Countywide goal of installing 37,000 new public and shared private EV chargers by 2030 to support a fleetwide light-duty ZEV market share of 30 percent. However, contrary to the comment's claim, the Checklist does identify those specific project

⁴² California Air Resources Board, 2023. \$125M in Incentives for Off-Road Zero-Emission Equipment Available through California's CORE Project. Available at <https://ww2.arb.ca.gov/news/125m-incentives-road-zero-emission-equipment-available-through-californias-core-project> Accessed July 2023.

⁴³ California Clean Off-Road Equipment Voucher Incentive Project, 2023. California CORE - Equipment. Available at <https://californiacore.org/equipment-category/construction/>. Accessed July 2023.

requirements needed to demonstrate consistency with each applicable measure and action for new projects opting to streamline their GHG impacts analysis under CEQA, as required by CEQA Guidelines section 15183.5(b)(1)(D) (“Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level”). Using the comment’s same example, the project-specific requirements to support implementation of Measure T6 in Checklist include several things such as complying with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness (such as minimum requirements for EV charging stations, EV-capable parking spaces, and EV-ready parking spaces) and include electric options for promoting active transportation, such as electric scooters and e-bikes. This is the same for all Tier 1 streamlining requirements. Consequently, the commenter’s claim that the Checklist does not indicate project-specific goals for measure T6 is incorrect.

O15-62 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. See General Response 3, the Checklist is a valid basis for determining consistency with the Revised Draft 2045 CAP as which addresses project-level requirements for CEQA streamlining mechanism for GHG impacts as identified in the Checklist.

O15-63 As discussed in General Response 3, demonstrating consistency with the Checklist is no longer mandatory for new development projects, but is rather a voluntary option that project applicants can utilize to streamline their project’s GHG impact analysis. Projects that do not intend to streamline their GHG impact analysis no longer need to demonstrate consistency with the Checklist.

Such projects would be required to prepare a project-specific impact analysis under CEQA, separate and apart from use of the Checklist. Such an analysis would be tailored to the specific project and could include state law GHG reduction mandates and feasible additional GHG reductions and mitigation measures based on specific project information and new technologies and practices, as the comment requests. Please see General Response 3 for further discussion regarding the process for project applicants.

O15-64 In response to the comment’s statement that consideration of projects on an individual basis is the only way the Revised Draft 2045 CAP can be consistent with and in furtherance of other County plans, see General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan, and General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist.

Please see General Response 3 for further discussion regarding the process for project applicants and General Response 2 for discussion regarding the Revised Draft 2045 CAP's relation to the General Plan.

- O15-65 See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. See General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist.
- O15-66 The County acknowledges the legally binding agreement of the commenter; however, this comment does not raise significant environmental issues or raise inadequacies associated with the Recirculated Draft PEIR such that no response is required pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b). Please also refer to response to comment O15-61 above.
- O15-67 This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP.
- O15-68 The comment raises general concerns about the Revised Draft 2045 CAP core elements, which are individually addressed in the responses below. See General Response 2, which addresses the relationship between the Revised Draft 2045 CAP and the General Plan. See General Response 3, which addresses project-level requirements for CEQA streamlining as identified in the Checklist.
- O15-69 The County intends to stay on track with the implementation of the Housing Element. The Housing Element sets forth implementing actions that encourage the private sector to build and improve housing. To that end, a climate action plan was identified as a program of the Housing Element. The Revised Draft 2045 CAP includes a streamlined voluntary procedure for environmental clearance for individual housing projects, thereby reducing the time and expense needed for individual environmental clearances. Such an analysis would be tailored to the specific project and could include state law GHG reduction mandates and feasible additional GHG reductions and mitigation measures based on specific project information and new technologies and practices, as the comment requests. Please see General Response 3 for further discussion regarding the process for project applicants.
- O15-70 Regarding this comment's suggestion that the Revised Draft 2045 CAP be revised into an aspirational document, please refer to General Response 2, which addresses this suggestion by clarifying the relationship between the Revised Draft 2045 CAP and the County's General Plan.
- O15-71 In response to the comment's suggestion that the Revised Draft 2045 CAP should quantify GHG reductions from statewide laws and mandates, and from measures that will be undertaken by the County and should allow projects to reduce emissions

through offsets and other approaches, the Revised Draft 2045 CAP does account for reductions from statewide laws and mandates, such as California’s Advanced Clean Car Standards, starting on page 2-7, and from forthcoming County measures in Chapter 3. See General Response 4, which addresses concerns regarding the use of voluntary GHG offset credits in the Revised Draft 2045 CAP and as an alternative GHG reduction measure in the Checklist for streamlining CEQA review of a project’s GHG impacts. See also General Response 3, which addresses concerns regarding the CEQA Streamlining Checklist and the use of alternative project emissions reduction measures, as well as General Response 5, which addresses the quantification of GHG emission reductions for the Revised Draft 2045 CAP strategies, measures, and actions.

O15-72 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP.



May 15, 2023

Los Angeles County Department of Regional Planning
Attn: Thuy Hua
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

RE: Comments on the Revised Draft 2045 Climate Action Plan

Dear Ms.Hua,

Thank you for the opportunity to help shape the County's [Revised Draft 2045 Climate Action Plan \(CAP\)](#).¹ The Greenlining Institute is a policy advocacy organization that works toward a future where communities of color can build wealth, live in healthy places filled with economic opportunity, and are ready to meet the challenges posed by climate change. Our organization has worked extensively to research and advocate for key strategies to make equity real in climate adaptation and resilience in California. In Los Angeles County, we work directly with communities of the San Gabriel and Pomona Valleys who are at the frontlines and have been identified by the LA County Climate Vulnerability Assessment as having a higher likelihood of increased exposure to climate hazards.² Our partners have also identified the following key priorities for local climate action in the region: mobility and transportation justice, food justice and urban agriculture, and extreme heat. However, the communities we serve face significant barriers such as the necessary capacity building and resources needed to address climate impacts. To overcome these challenges, our shared vision for the region is to:

- Connect leaders to build collective people power, and develop a common language to pursue climate opportunities;
- Center organizations and bring together stakeholders who have not been traditionally part of the climate conversation;
- Increase community ownership over climate solutions, including language justice to effectively engage in participatory planning and policy making at the local and state level;
- Support community stakeholders with the capacity, resources and partnerships needed to realize community visions for climate resilience and equity.

¹ *Revised Draft 2045 Climate Action Plan*, Los Angeles County Department of Regional Planning, Mar. 2023. https://planning.lacounty.gov/wp-content/uploads/2023/03/LA_County_2045-CAP_Rev_Public_Draft_March_2023_Chapters.pdf. Accessed 17 Apr. 2023.

² *LA County Climate Vulnerability Assessment*, Oct 2021. <https://ceo.lacounty.gov/wp-content/uploads/2021/10/LA-County-Climate-Vulnerability-Assessment-1.pdf>. Accessed 17 Apr. 2023.

We look forward to shaping the development of the CAP by applying our experience in climate resilience, capacity building and learnings from our local partners. There are numerous aspects of the the current draft that we appreciate:

- First, we support the newly added section on *Climate Equity* in Chapter 1 from the first iteration of the CAP, which includes a list of climate equity guiding principles and a proposed equity approach for implementation (pages 51-57).
- We also agree that investments should be prioritized in frontline communities of unincorporated regions of LA County, and alignment with existing resources and tools such as the County's Climate Vulnerability Assessment, Healthy Places Index and CalEnvironScreen 4.0 to identify frontline communities (page 54).
- Lastly, we appreciate that capacity building in frontline communities and partnerships with community-based organizations (CBOs) is prioritized to ensure meaningful engagement throughout the CAP implementation and evaluation process (page 55).

We appreciate the opportunity to provide feedback on the current draft and offer the following CAP recommendations to ensure equitable outcomes and meaningful benefits in frontline communities across unincorporated areas of Los Angeles County.

Recommendations

Communities of color, indigenous communities, and low-income neighborhoods have been shaped by deliberate and exclusionary public policies. As a result, under-resourced communities have borne the brunt of generational disparities in socioeconomic and health outcomes, and suffer first and worst from escalating climate impacts. Moreover, these communities have long been excluded from the decision-making processes that impact their lives and neighborhoods, despite the deep expertise and solutions that they hold.

To achieve full potential, we must dismantle the systemic barriers for communities to have full access and opportunity to participate in local climate action. In our experience, under-resourced communities face the following key structural challenges to addressing climate impacts:

- *Ecosystem Gaps*: Decades of disinvestment have resulted in gaps across local ecosystems. Local organizations often require additional support for specific issue-area, content, or technical expertise. Another challenge is staffing and overall administrative capacity to meaningfully engage in the development, implementation and evaluation of local climate plans. In LA County, unincorporated regions face additional challenges to fully and actively participate in local climate action without local city governments in place.

- *Need for More Robust Multi-Sector Partnerships:* Even where neighborhoods may have strong community-based or institutional anchors, those actors may not be working constructively together to achieve greater collective impact. Communities may be siloed by issue areas, sectors, or a lack of trust, and require more meaningful opportunities to work together towards a shared climate vision grounded in equity.
- *Funding:* Under-resourced communities have been systematically starved of funding and investments, both public and private. Communities lack the resources needed to meaningfully engage residents, build collective visions, share their expertise, and work with local governments to implement projects and policies set forth by climate action plans.
- *Access to Structural Power:* Under-resourced communities lack the access or influence needed to advance community priorities. Implementing projects and changing policies to meet the needs of residents often requires access to structural power as embodied by local and regional governments.

In order to address these structural challenges, DRP must support under-resourced communities to fully take ownership over the decisions and proposed actions from the CAP that will shape their neighborhoods for years to come.

1. Support Capacity Building from the Bottom Up

To support equitable opportunity and access to tools for community-driven climate action, DRP should actively support capacity building activities in under-resourced communities from the bottom up. This involves centering community engagement, leadership, and governance, and supporting the ecosystem of change. Our organization defines capacity building as the process of strengthening local leadership, skills, expertise, and resources to enable communities to meet their needs and achieve self-determination:

a. Center Community Engagement, Leadership, and Governance

Centering community engagement and leadership in local climate action is foundational. No one knows better than community members themselves what is needed in their neighborhoods, yet rarely are community voices centered in the decision-making processes that impact their daily lives. An example of a process that centered meaningful engagement is the community engagement model used in the development of the LA County Sustainability Plan (OurCounty).³ The development of OurCounty employed a number of best practices including multi-stakeholder workshops, language-accessible outreach materials, and anchor community-based organizations to facilitate workshops and uplift equity strategies. Through local multi-stakeholder partnerships with philanthropy, the county was also able to provide anchor community-based organizations with grants and participation stipends for stakeholder engagement.

³ *OurCounty Stakeholder Engagement Summary*, LA County Chief Sustainability Office. https://ourcountyla.lacounty.gov/wp-content/uploads/2019/07/OurCounty-Stakeholder-Engagement-Summary_For-Web.pdf. Accessed 17 Apr. 2023.

The Transformative Climate Communities (TCC) program, administered by the Strategic Growth Council, also provides a strong design model for both community engagement and collaborative governance that can be applied in the implementation of local climate action plans.⁴ TCC requires the development of Community Engagement Plans, supports community-led decision-making that builds towards collective impact and requires collaborative governance between a diverse range of organizations. This creates a platform where community organizations and residents not only have a seat at the table, but also have meaningful decision-making power in developing strategies and actions for climate resilience in their communities.

b. Support the Ecosystem of Change

Across local ecosystems, we have found that successful collective impact depends on the resourcing of several key stakeholder types (a strong community anchor, supportive local government, and community-facing technical assistance or a third-party entity) so they can effectively collaborate to conduct community engagement efforts.

- i. Community anchors are community-based organizations or coalitions which organize or engage directly with residents and have a history of strong relationships, trust, and cultural competency with impacted communities. Community anchors ground the effort in community-identified priorities and leadership, but may lack the technical or administrative capacity. Through using an intersectional approach, community anchors can also bring together stakeholders who have not traditionally been part of the climate conversation but whose communities are at the frontlines of climate impacts such as immigrant rights, worker centers and tenant rights organizations.
- ii. Government partners may include local governments, regional governments, and other public agencies that can offer significant administrative and fiscal capacity. However, for local governments to be strong community-aligned partners, it is crucial that key political decision-makers and implementing staff support the community-led effort.

⁴ *Transformative Climate Communities Program Final Round 5 Guidelines*, California Strategic Growth Council, 15 Feb. 2023. https://sgc.ca.gov/programs/tcc/docs/20230308-TCC_R5_Guidelines.pdf. Accessed 17 Apr. 2023.

- iii. Technical assistance providers can be a vital component in advancing community-led visions for climate resilience. TA providers should tailor their services to fill capacity gaps of community partners including partnership-building support, funding, community engagement, project pre-development, building community capacity, and more. Furthermore, many community-based organizations have developed community-driven climate resilience plans and potential projects ideas. Therefore, the DRP should prioritize aligning the CAP with existing community visions for climate resilience, and provide TA support to build their capacity. Doing so will ensure communities' visions of climate resilience and adaptation become an integral component of the CAP.

2. Operationalize Equity from Project Goals through Evaluation

Including a commitment to equity is not enough to ensure that equity will occur. Operationalizing equity requires embedding equity into all stages of a climate action plan. We strongly encourage DRP to embed equity into the proposed strategies, measures and actions of the CAP and in the creation of any new local grant programs to support frontline communities. The Greenlining Institute's "Making Equity Real in Climate Adaptation and Community Resilience Guidebook" provides a framework for how to embed equity in policies, projects or programs using the following four steps.⁵

a. *Embed Equity in the Mission, Vision, & Values*

Equitable outcomes and a strong equity evaluation flow directly from the goals and targets established at the outset. The CAP should explicitly state a commitment to equity, clearly define equity, establish specific measurable equity targets, and identify the frontline communities they seek to benefit upfront. An example of equity-centered goals is the LA County's Sustainability Plan where equity is embedded in the twelve sustainability goals of the plan. Existing county resources such as the Climate Vulnerability Assessment can also be used for targeted benefits in communities most vulnerable to the impacts of climate change.⁶ Such efforts will allow the county to tackle the climate impacts faced by frontline communities. The effort must also aim to create comprehensive climate strategies for communities that go beyond building the resilience of physical environments to address other health and economic injustices that climate impacts exacerbate.

b. *Build Equity into the Process*

⁵ Mohnot, Sona, et al. The Greenlining Institute, 2019, *Making Equity Real in Climate Adaptation and Community Resilience Policies and Programs*, <https://greenlining.org/wp-content/uploads/2019/08/Making-Equity-Real-in-Climate-Adaption-and-Community-Resilience-Policies-and-Programs-A-Guidebook-1.pdf>. Accessed 17 Apr. 2023.

⁶ *LA County Climate Vulnerability Assessment*, Oct 2021. <https://ceo.lacounty.gov/wp-content/uploads/2021/10/LA-County-Climate-Vulnerability-Assessment-1.pdf>. Accessed 17 Apr. 2023.

DRP should deeply engage community members to learn about and respond to their priorities, needs, and challenges in adapting to climate impacts in order to inform the development and implementation of the CAP. This includes building partnerships with diverse organizations such as immigrant rights organizations and worker centers that are increasingly advocating for measures to address extreme heat.

In addition, DRP Equity Guiding Principles can be improved upon. Figure 4-1: Equity Guiding Principles notes the engagement process as Step 6. Rather, engagement should be woven throughout. Communities should be actively part of the decision-making process in implementation (Step 5), when conducting evaluation (Step 8), and so on (pgs. 39-43). DRP should include securing funding sources for CBO grants and stipends to support participants throughout the engagement process as well. Through this, DRP will be able to better identify how proposed actions may generate burdens (e.g. time/capacity, displacement, and increased costs), either directly or indirectly to frontline communities and an accompanying plan to address and mitigate those burdens.

c. Ensure Equity Outcomes

The CAP must lead to equity outcomes that respond to community needs, reduce climate vulnerabilities, and increase community resilience. Outcomes can include improved public health and safety, workforce and economic development, and more in ways that reduce historical and current disparities. As one example, the Santa Cruz Climate Action Plan developed an Equity Screening Tool to screen all proposed actions to ensure equitable and just transition outcomes for communities. Some of the equity criteria used in the tool included community health and safety, affordability, and green job facilitation and creation.⁷

d. Measure & Analyze for Equity

The CAP should apply clear equity metrics in Chapter 4: Implementation and Monitoring (pages 139-143) and in tracking metrics proposed in Table 4-1 (page 144) to evaluate its successes and challenges in prioritizing frontline communities. DRP can partner with CBOs to establish reporting criteria and metrics to achieve this. Additionally, DRP should establish accountability checkpoints to measure the outcomes of actions to ensure equitable benefits to frontline communities and avoid disproportionate harm. Course correction checkpoints, and a transparent process for communicating progress to community stakeholders should also be put in place.

3. Assess Grant Administration and Potential Funding Opportunities

⁷*Climate Action Plan Appendices*, City of Santa Cruz, Jun. 2023.
<https://www.cityofsantacruz.com/home/showpublisheddocument/90694/637983259399030000>. Accessed 17 April. 2023.

DRP must assess and improve its internal practices to simplify program administration, reduce barriers in the development of new grant programs and prioritize potential funding opportunities that invest in frontline communities.

a. Administrative Assessments

Communities working through local grants and other government processes often encounter a labyrinth of complicated rules and regulations. To reduce barriers for entry in the development of new grant programs for individuals for energy retrofits (page 57) and grants for local CBOs to conduct community engagement (page 142), we encourage DRP to conduct internal evaluations of their own grant management processes and requirements. Such an evaluation would help DRP assess how their internal administrative processes could be streamlined to improve public access. For example, such an assessment could distinguish which administrative requirements are statutorily required, and which requirements are in fact just custom or accepted practice. This would help to reduce the number of administrative specifications and increase overall accessibility of grants especially for under-resourced communities of LA County.

b. Remove Needless Funding Barriers

As DRP carries out its own internal assessments, funding barriers immediately stand out for limiting the ability of communities to participate in local climate action plans. As DRP acknowledges, many incentive programs present barriers to fully engage in local climate action (pg 57). The reimbursement model creates significant cash flow challenges for individuals as they may not have available extra resources to cover upfront costs. In the creation of any new programs targeted at frontline communities, DRP should offer advance pay to allow full equitable participation in climate resilience. Small and/or under-resourced community-based organizations seeking to partner with local governments to engage in climate action plans also have similar barriers when accessing local grants. When partnering with community-based organizations to support community engagement activities DRP should offer advance payment to reduce financial barriers.

c. Prioritize Funding Sources that Invest in Frontline Communities

Many of the funding sources identified in Table 3-3 (page 76) do not prioritize investments in frontline communities. DRP should identify a list of potential funding sources that invest in and outline clear benefits to frontline communities. When partnering with community-based organizations to seek state and federal grant opportunities, DRP should prioritize grant opportunities that also have the least administrative barriers and provide advance pay for partner organizations. For instance, the California Air Resources Board Sustainable

Transportation Equity Program (STEP)⁸ uses an advance pay regulation to grant the majority of funds up front for planning and implementation grants⁹. Doing so will ensure DRP's commitment to “*prioritize funding and action in frontline communities*” and support diverse multi-stakeholder partnerships to implement actions from the CAP (pg 140).

Conclusion

Thank you for the opportunity to offer comments for the proposed LA County 2045 Climate Action Plan. We urge the LA County Department of Regional Planning to incorporate the recommendations outlined above into the final CAP and continue engaging frontline communities so the CAP is reflective of their visions for climate resilience.

Sincerely,

Katherine Cabrera
Program Manager of Capacity Building, *The Greenlining Institute*

⁸ *Sustainable Transportation Equity Project Implementation Grant Solicitation*, 4 June 2020. https://ww2.arb.ca.gov/sites/default/files/classic/msprog/step/step_implementation_grant_solicitation.pdf. Accessed 17 Apr. 2023.

⁹ *Proposed Additional Requirement for Advance Payment of Certain Funds Regulation*. California Air Resources Board, 3 Sept. 2019, <https://ww2.arb.ca.gov/rulemaking/2019/advancedpayment2019>. Accessed 17 Apr. 2023.

2.3.2.16 Letter O16: The Greenlining Institute

This letter provides input on the Revised Draft 2045 CAP only. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*.

2.3.3 Responses to Comments from Individuals

Comment Letter I1

From: [Chelsea Katan](#)
To: [DRP EPS Climate](#)
Subject: 2045 Climate Action Plan Comments
Date: Monday, April 10, 2023 10:21:02 PM

CAUTION: External Email. Proceed Responsibly.

Hello,

I live in Pasadena, CA in LA County. I've focused my review on the transportation segments of the document as they are the greatest contributors to climate change by the numbers. There should be more of a focus on dense development and transit infrastructure and the intersection of land use and VMT than I currently see in this document. Is there a way to be alerted to revisions of this document, or meetings reviewing this document?

I1-1

- Measure T1, p. 99: Please remove the maximum DU cap (quoted below). There should be no limitation to how many dwelling units are built surrounding transit. Increased transit access helps decrease single occupant trips and decrease vehicle miles traveled.
 - "Achieve a minimum of 20 dwelling units (DU) per acre (~~maximum of 30-150 DU per acre~~) for HQTAs. :

I1-2

- Measure T1: I appreciated the focus on access to public amenities like parks!

- Measure T2, p. 100: This seems to not account for remote work and work from home lives. We're already seeing other downtowns struggle to fill office spaces. It would make more sense to emphasize housing combined with jobs. This also reduces VMT.

I1-3

- Measure T3: What percentage of bike lanes will be physically protected? Paint is not protection. These need to be safe enough for children to ride to truly increase biking safety.

I1-4

- Measure T4 - that's an awesome goal to increase transit hours! Short headways make transit way easier to take!
- Measure T4.6 - I love this measure! Increasing affordability of transit helps people use it!
- Measure T4.8 - can't wait to see it here!

- Measure T4.10 - don't let this one become a blocker to making transportation abundant and reliable. Something is better than nothing, even if it's not perfect.

I1-5

- Measure T5 - love this, let's get rid of parking minimums! Especially near transit!

- I think there's an overfocus on EV's as a solution to climate change.

I1-6

- Is the grid system ready and changing to support that load in parallel?

I1-7

- How will that grid support EV during extreme temperatures?

I1-8

- Studies are starting to show that vehicle tires produce quite a bit of pollution too: <https://www.theguardian.com/environment/2022/jun/03/car-tyres-produce-more-particle-pollution-than-exhausts-tests-show>

I1-9

Thank you,

Chelsea Katan
she/her/hers
chelseakatan@gmail.com
[linkedin.com/in/chelseakatan/](https://www.linkedin.com/in/chelseakatan/)

2.3.3.1 Letter I1: Chelsea Katan

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

I1-1 For the notices regarding the Revised Draft 2045 CAP Measure T1, Measure T2, Measure T3, Measure T4, Measure T5, and other areas of the Revised Draft 2045 CAP are acknowledged and have been included in the record and they will be considered by decision-makers. Regarding housing density and land use decisions the project, interested parties can register for the project listserv to receive email notifications: <https://planning.lacounty.gov/get-involved/>.

The Revised Draft 2045 CAP is a policy document that is intended to reduce community-wide GHG emissions and would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or specific projects are proposed as part of the Revised Draft 2045 CAP. However, the Housing Element developed the Rezoning Program as one of the first steps to facilitate sustainable housing production. The rezoning is being implemented through the Area Plan and is named as Programs 7 (East San Gabriel Valley Area Plan), 8 (Metro Area Plan), 18 (South Bay Area Plan), 19 (West San Gabriel Valley Area Plan), and 20 (Westside Area Plan) in the Housing Element. The Rezoning Program will increase housing densities in areas with existing infrastructure.

The Revised Draft 2045 CAP includes Measure T1, which seeks to increase housing opportunities that are affordable and near high-quality transit areas to reduce VMT. Implementation of the Revised Draft 2045 CAP's measures and actions would reduce overall Countywide vehicle trips and VMT. The Revised Draft 2045 CAP would encourage mixed-use development (Measure T2) and place residential density near transit (Measure T1), which would reduce VMT within the County.

I1-2 to I1-5 These comments on the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on these issues pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP.

I1-6 Responding to the comment's opinion that the Revised Draft 2045 CAP includes too much focus on EVs as a solution to climate change, transportation represents over 50 percent of the County's total GHG inventory and it is notoriously difficult to reduce GHG emissions in the transportation sector. Increasing the Countywide market share of zero emission vehicles is a cornerstone of the Revised Draft 2045 CAP's

program to achieve the County’s 2030, 2035, and 2045 GHG emission reduction targets. This aligns with CARB’s 2022 Scoping Plan, which also heavily relies on ZEVs to achieve California’s statutory GHG emission reduction targets.

The County has limited control over individual behaviors when it comes to transportation. The Revised Draft 2045 CAP includes Strategy 2, *Increase Densities and Diversity of Land Uses Near Transit*, which focuses on coordinating land use development that leads to outcomes associated with reduced VMT, such as increased densities near transit, jobs-housing balance, and strategically located land uses that can reduce travel distances for many trip purposes. Strategy 3, *Reduce Single-Occupancy Vehicle Trips*, focuses on development of transportation networks that increase the accessibility, comfort, and convenience of active travel modes to help reduce trips made in single-occupancy vehicles. The measures and actions listed under these two strategies aim to reduce the amount of time and miles traveled in vehicles throughout the County.

- I1-7 In response to the commenter’s concern that the electric grid is not ready to support the new electricity demand resulting from the new EVs in the vehicle fleet as called for by Draft 2045 CAP Measure T6, please refer to Draft PEIR Chapter 3.7, *Energy*, for a discussion of the capacity of the grid to support implementation of the Revised Draft 2045 CAP’s electrification measures and actions. (Recirculated Draft PEIR, Chapter 3.7, pp. 3.7-13 to 3.7-14.)
- I1-8 Please refer to Draft PEIR Chapter 3.7, *Energy*, for a discussion of the capacity of the grid to support implementation of the Revised Draft 2045 CAP’s electrification measures and actions. (Recirculated Draft PEIR, Chapter 3.7, pp. 3.7-13 to 3.7-14.)
- I1-9 The County has reviewed the Guardian article on car tires and air pollution (URL provided by the commenter). Tire wear is a known source of particulate matter and this is acknowledged in Recirculated Draft PEIR Chapter 3.4, *Air Quality*. (Recirculated Draft PEIR, Chapter 3.4, pp. 3.4-33.) Reducing particulate matter is a co-benefit of reducing VMT. However, the County has determined that the information provided in this article does not raise environmental issues related to the Recirculated Draft PEIR and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the information has been included in the administrative record where it will be considered as part of the decision-making process.

Comment Letter I2

From: [Emmanuel Alcantar](#)
To: [DRP EPS Climate](#)
Subject: Climate Action Plan
Date: Thursday, May 11, 2023 1:17:07 PM

CAUTION: External Email. Proceed Responsibly.

Hello,

My name is Emmanuel Alcantar and I wanted to provide feedback on the County's climate action plan.

Right now, LA County's current plan is to cap housing density near high quality transit at as low as 30 homes/acre. CARB's own scoping plan says that we need 25% reduction in per capita VMT in order for the state to reach its own climate goals and building densely — especially in our transit corridors — is one of the most significant ways we can make progress on that. I do not believe we should be putting any limits on density, height, or floor area near public transit.

I2-1

I also think we need to re-zone areas near our community colleges (many of which are high quality transit areas) and ensure that they are being used for dense housing, especially since we have so many students who are either severely rent burdened or are unhoused.

I2-2

Lastly, in a similar vein, I believe the County should reform its parking requirements to allow for easier implementation of SB 9.

I2-3

Thank you so much for your time.

Best regards,
Emmanuel Alcantar

2.3.3.2 Letter I2: Emmanuel Alcantar

This letter provides input on the Revised Draft 2045 CAP as well as CEQA comments on the Recirculated Draft PEIR. Comments specific to the Revised Draft 2045 CAP do not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, the County has received and reviewed comments on the Revised Draft 2045 CAP and common topics are discussed in Section 1.4, *Comments on the Revised Draft 2045 CAP*, in Chapter 1, *Introduction*. PEIR-focused comments are addressed below.

- I2-1 The commenter is correct that the 2022 Scoping Plan has a statewide goal of reducing per-capita VMT 25 percent below 2019 levels by 2030. As discussed in Revised Draft 2045 CAP Appendix H, *2022 Scoping Plan Recommendations Consistency*, the Revised Draft 2045 CAP does not achieve the same levels of per-capita VMT reduction as the Scoping Plan Scenario for 2045. Compared to estimated 2019 levels, the Revised Draft 2045 CAP achieves a 10 percent reduction in per-capita VMT by 2030, a 12 percent reduction by 2035, and a 16 percent reduction by 2045, which is extremely aggressive for the land use profile of unincorporated Los Angeles County. Note that CARB's 30 percent reduction goal is a statewide target and not a mandate for individual jurisdictions, including cities and counties. Therefore, the Revised Draft 2045 CAP is consistent with the 2022 Scoping Plan. For additional discussion, see Revised Draft 2045 CAP Appendix H.
- I2-2 Regarding the comment's recommendations related to increasing housing density near transit corridors and community colleges, as discussed in General Response 2, the Revised Draft 2045 CAP is a policy document that would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Revised Draft 2045 CAP. Specifically, the 30 dwelling units per acre minimum within HQTAs is directly from the County's 2021-2029 Housing Element, and is not a new component of the Revised Draft 2045 CAP.
- I2-3 Assembly Bill 2097 removed parking minimums for projects located within one half mile of public transit. The County is currently working toward codifying AB 2097 regulations into the County Code.

CHAPTER 3

Revisions to the Recirculated Draft PEIR

3.1 Introduction

The following changes have been made to the previously published text of the Recirculated Draft Program Environmental Impact Report (PEIR). Changes to the Recirculated Draft PEIR include minor corrections: improving writing clarity, grammar, and consistency; making clarifications, additions, or deletions resulting from specific responses to comments; and showing changes to update information in the Recirculated Draft PEIR. These text revisions are organized by the chapter and page number (provided on the left-hand side of the page, below) that appear in the Recirculated Draft PEIR. An explanation of the change, including identification of where it would be made, is presented in italics. The specific additions and deletions use the following conventions:

- Text deleted from the EIR is shown in ~~strike out text~~.
- Text added to the EIR is shown in underline text.

These revisions are provided to clarify, refine, and provide supplemental information to the Recirculated Draft PEIR and are incorporated as part of this Final PEIR. These changes do not constitute substantial new information that requires recirculation of the Recirculated Draft PEIR pursuant to CEQA Guidelines section 15088.5. Recirculation is not required when new information is added that “merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.” (CEQA Guidelines, § 15088.5(b).) The new information added to the EIR through these modifications clarifies or amplifies information already provided or makes insignificant modifications to the already adequate Recirculated Draft PEIR. While these additions to the Recirculated Draft PEIR provide valuable information by which to evaluate the environmental impacts of the Project, and include clarification and insignificant modifications to the Recirculated Draft PEIR, they do not trigger recirculation under the standard articulated in the Guidelines. The information added to the EIR does not reveal any potentially new significant impacts which had not been previously analyzed. Recirculation is not required here.

3.2 Text Changes to the Recirculated Draft PEIR

3.2.1 Executive Summary

Page ES-4 Table ES-1: Action ES1.1 has been revised as follows:

Action ES1.1 – Collaborate with other local jurisdictions and utilities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. ~~Develop an ordinance.~~

Page ES-4 Table ES-1: Action ES1.2 has been revised as follows:

Action ES1.2 – Develop a policy that requires the examination of ~~all active, idle, and abandoned~~ oil wells for fugitive emissions of GHGs to develop and implement a closure plan. Coordinate with federal and state agencies ~~conducting~~ collecting fugitive emissions data.

Page ES-4 Table ES-1: Action ES 5.3 has been revised as follows:

~~Action ES5.3 – Evaluate a program for reducing GHG emissions for new development that require General Plan amendments.~~

Page ES-4 Table ES-1: Action ES 5.4 has been modified and revised as follows:

Action ES5.4~~3~~ - Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment.

Page ES-5 Table ES-1: Action ES 5.2 has been modified and revised as follows:

Action ES5.2 - Implement the 2045 CAP ~~consistency review~~ CEQA streamlining checklist for new development to demonstrate consistency with the 2045 CAP's strategies, measures, and actions for purposes of streamlining environmental review of GHG impacts using the 2045 CAP's PEIR pursuant to CEQA Guidelines Section 15183.5(b).

Page ES-5 Table ES-1: Action ES 5.3 has been revised as follows:

~~Action ES5.3 – Evaluate a program for reducing GHG emissions for new development that require General Plan amendments.~~

Page ES-5 Table ES-1: Action ES 5.4 has been modified and revised as follows:

Action ES5.4~~3~~ - Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP

compliance and to fund programs for reducing GHG emissions in the built environment.

Page ES-10 Table ES-1: Measure E1 has been modified and revised as follows:

Measure E1: ~~Transition~~ Decarbonize Existing Buildings to All Electric

Page ES-10 Table ES-1: Action E 1.1 has been modified and revised as follows:

Action E1.1 - Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require zero-GHG emission appliances, electric water and space heating. ~~Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale.~~

Page ES-10 Table ES-1: Action E 1.2 has been modified as follows:

Action E1.2 - Increase alternatives to fossil natural gas uses, such as for cooking, in existing buildings. Establish carbon and GHG intensity limits for existing nonresidential and residential buildings over a certain size.

Page ES-11 Table ES-1: Action E 1.1 has been modified and revised as follows:

Action E1.1 - Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require zero-GHG emission appliances, electric water and space heating. ~~Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale.~~

Page ES-11 Table ES-1: Measure E2 has been modified and revised as follows:

Measure E2: ~~Standardize~~ Decarbonize All Electric-New Development

Page ES-11 Table ES-1: Action E2.1 has been modified and revised as follows:

Action E2.1 - Adopt an ordinance requiring all applicable new buildings to be zero-GHG emission fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. Require all new development to be electric-ready.

Page ES-12 Table ES-1: Action E4.1 has been modified and revised as follows:

Action E4.1 – Adopt Building Performance Standards for energy efficiency in existing buildings. Require buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the

Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements, and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters.

Page ES-14 Table ES-1: Action W 1.2 has been modified and revised as follows:

Action W1.2 - Implement, enforce, and expand to the maximum extent feasible the single-use plastics ~~ordinance~~ and expanded polystyrene ban ordinance.

Page ES-14 Table ES-1: Action W 2.3 has been modified as follows:

Action W2.3 - Collaborate with the Los Angeles County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel and other beneficial uses (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste.

Page ES-16 Section ES 2.1 Project Overview has been modified and revised as follows:

- A new development review CEQA streamlining consistency checklist to allow projects to streamline CEQA compliance by using the Draft 2045 CAP, per CEQA Guidelines Section 15183.5.

Page ES-17 Section ES 2.2 Project Objectives has been modified and revised as follows:

(5) Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a “qualified CAP”) via a Draft 2045 Climate Action Plan CEQA Streamlining CAP Consistency Checklist.

Page ES-54 Section 4.2.1 has been modified and revised as follows:

In this case, the No Project Alternative examines a scenario in which the County would not approve the Draft 2045 CAP for implementation in the unincorporated areas, and none of the GHG emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented ~~and none of the benefits and co-benefits identified in the 2045 CAP would be realized.~~

Page ES-58 Section 4.2.4 has been revised and modified as follows:

For example, Measure T6, Increase ZEV Market Share, has a 2030 performance goal of a 30 percent ZEV fleetwide percentage for light-duty vehicles in the

County; under Alternative 3, this performance objective ~~could~~ would likely be reduced to a 10 percent ZEV market share (or lower).

Pages ES-59 to ES-60 Section 4.4 has been revised and modified as follows:

~~The CEQA Guidelines define the *environmentally superior alternative* as that alternative with the least adverse impacts on the project area and its surrounding environment. For this Project, the No Project Alternative is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project even though air quality and GHG emissions would be the worst among all alternatives under the No Project Alternative. However, the No Project Alternative would fail to meet the basic objectives of the Project. Additionally, selection of the No Project Alternative would result in realization of none of the benefits identified in the Draft 2045 CAP. Because the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. (CEQA Guidelines Section 15126.6(e)(2).)~~

An EIR’s discussion of alternatives to the proposed project must include a “no project alternative” to allow a comparison of the environmental impacts of approving the proposed project with the effects of not approving it. (CEQA Guidelines, § 15126.6(e)(1).). CEQA requires an EIR to identify the “environmentally superior alternative” if the no project alternative is environmentally superior. (CEQA Guidelines, § 15126.6 (e)(2).).

The EIR No Project Alternative evaluates the scenario where the County would not approve the Revised Draft 2045 CAP for implementation such that no GHG emissions reduction strategies, measures, or actions identified by the Revised Draft 2045 CAP would be implemented. This would avoid adverse impacts caused by projects facilitated by the Revised Draft 2045 CAP, as compared to impacts under the Revised Draft 2045 CAP. Because the No Project Alternative would not facilitate projects, there would be no project-related impacts when compared to implementation of the Revised Draft 2045 CAP (see Table 4-6, which provides a comparative summary), and thus, the No Project Alternative is identified as the environmentally superior alternative.

However, in the long-term, the No Project Alternative would result in substantially fewer environmental benefits to the County overall for several reasons. First, air pollutant (criteria pollutants and toxic air contaminants) and GHG emissions would be much higher under the No Project Alternative than air pollutant and GHG emissions under with all other alternatives and the Project such that impacts to human health would be higher. This is because the Project would substantially reduce countywide GHG emissions, and many of these emission reductions would produce parallel reductions in criteria pollutants and toxic air contaminants primarily by reducing fuel combustion. The No Project

Alternative would result in greater human health risks associated with exposure to toxic air contaminants than all other alternatives and the Project, because all other alternatives and the Project would substantially reduce TAC emissions in the County. The No Project Alternative would neither realize the long-term GHG emission reduction benefits associated with implementation of the Revised Draft 2045 CAP (and all the co-benefits that would also occur, such as reduced criteria pollutant and TAC emissions), nor provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet and exceed the 2045 direct emission reduction target and carbon neutrality goal established by AB 1279. Significantly, the No Project Alternative would not meet any of the Project objectives and the County is not obligated to select the environmentally superior alternative for implementation if it would not accomplish the basic project objectives. (CEQA Guidelines, § 15126.6(a), (c), (f).)

CEQA Guidelines Section 15126.6(e)(2) states, “[i]f the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

For purposes of this EIR, Of Alternatives 1-3, Alternative 3 would reduce adverse environmental impacts compared to the Project to the greatest extent because it would result in fewer facilitated projects compared with the Revised Draft 2045 CAP. Alternative 3 is considered the environmentally superior alternative for CEQA purposes because it would result in similar but lesser impacts than 11 resource areas relative to the Project in the following resource areas: (i.e., aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, utilities and service systems, and wildfire.) and However, Alternative 3 would result in greater impacts than the Project in two resource areas (i.e., for energy, and GHG emissions, air quality, and utilities and service systems). Alternative 3 would facilitate fewer projects that would reduce Countywide energy use compared to the Project, resulting in greater energy consumption than the Project. Alternative 3 would result in greater GHG emissions impacts than the Project because Alternative 3 would not reduce Countywide GHG emissions as much as the Project through 2030 and 2035, producing much greater GHG emissions than the Project. Additionally, implementation of Alternative 3 would result in greater air quality impacts than the Project for operational impacts because Alternative 3 would facilitate fewer projects through 2030 and 2035, resulting in much greater emissions of criteria pollutants and TACs throughout the county for these years, resulting in greater human health risks as compared to the Project. Finally, Alternative 3 would result in greater utilities and service systems because projects facilitated by Alternative 3 would lead to increased use of recycled and gray water systems compared to the Project, increasing the amount of wastewater requiring treatment by wastewater treatment providers, and thus, would require the development of new water recycling and direct potable reuse facilities.

Alternative 3 would have same impacts as the Project with respect to the remaining resources. See Table 4-6 for details.

However, ~~it should be noted that~~ Alternative 3 would likely only delay these impacts as compared to the Project ~~versus rather than lessening these impacts or eliminate ing these m impacts entirely.~~ This is because Alternative 3 has lower GHG emissions reduction targets only for the years 2030 and 2035 compared to the Project; (it has the same targets for the year 2045). This means that Alternative 3 would likely facilitate fewer projects through 2030 and 2035 to achieve the lower lesser targets, resulting in reduced adverse environmental impacts for these years. ~~But However,~~ Alternative 3 would likely facilitate the same number of projects through 2045, resulting in the same environmental impacts through 2045 compared to the Project. However, Alternative 3 would more likely facilitate a greater number of projects in the 2035 to 2045 period than the Project, worsening environmental impacts during the 2035 to 2045 timeframe compared to the Project. Consequently, Alternative 3 would delay the realization of its environmental potential impacts but would not completely lessen or eliminate or permanently lessen these adverse environmental impacts entirely, and could increase or create certain environmental impacts compared to the Project.

~~Additionally, it should be noted that~~ Alternative 3 ~~has does have~~ some drawbacks compared to the Project. As discussed previously in the description of Alternative 3 (Section 4.4.4), its ability to ~~it would not meet Project Objectives 1, 2, and 5 would be limited compared to the Project.~~ Alternative 3 would not meet Project Objective 1 (identify detailed programs, actions, and performance goals to achieve the climate policies of the General Plan) because implementation would result in an inconsistency with the County’s General Plan Policy AQ 3.9 (“Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.”). Additionally, the 2030 target of 40 percent below 1990 levels is ~~quite~~ far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which ~~may~~ likely means that Alternative 3 does not align with either County or state emissions reduction goals.

Alternative 3 does not align with County or state goals, including AB 1279, which establishes the state policy to achieve net zero GHG emissions as soon as possible but no later than 2045 and to achieve and maintain net negative GHG emissions thereafter. AB 1279 also mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels. Implementation of Alternative 3 may would likely exclude several recommended priority local GHG emissions reduction strategies recommended by the 2022 Scoping Plan to ensure alignment with State climate goals.

Alternative 3 would also not meet Project Objective 5 (demonstrate a level of GHG emissions below which the County would have less than cumulatively

considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects via the Checklist) because Alternative 3’s lower targets would not meet CEQA standards for a level of GHG emissions that would not be cumulatively considerable for future environmental review of projects, given that Alternative 3’s targets do not align with state goals and consistency with state goals is the criteria for whether the targets represent a level of GHG emissions that would have a less than cumulatively considerable GHG impact for future environmental review projects. Nevertheless, in balancing both Alternative 3’s reduction in adverse environmental impacts and long-term beneficial effects compared to the Project, the County has determined that Alternative 3 is the environmentally superior alternative.

3.2.2 Chapter 1, Introduction

Pag 1-1 Section 1.1 has been revised as follows:

- A new CEQA streamlining development review consistency checklist to allow future projects to streamline GHG emissions analyses pursuant to the California Environmental Quality Act (CEQA)¹ as anticipated by CEQA Guidelines Section 15183.5 by using the Draft 2045 CAP.

3.2.3 Chapter 2, Project Description

Page 2-4 Table 2-1: Policy AQ 3.5 has been revised and modified as follows:

Policy AQ 3.5: Encourage energy conservation in new development and municipal operations. Require the full electrification decarbonization of new development. Encourage the retrofit of existing development to achieve full electrification decarbonization.

Pages 2-5 to 2-6 Table 2-2 has been revised and modified as follows:

| Program No. | Program Description | General Plan Goals and Policies | Lead and Partner Agencies | Time Frame |
|-------------|--|---|---------------------------|------------|
| AQ-1 | PACE Financing Program Pursuant to AB 811, establish a countywide property assessed clean energy (PACE) financing program to provide municipal financing for energy and water efficiency and renewable energy projects on private property. | Air Quality Element: Policies AQ 3.2, AQ 3.3 Public Services and Facilities Element: Policy 6.5 Economic Development Element: Policy ED 1.2 | Lead: ISD | Years 1-2 |
| AQ-2 | Climate Change Adaptation Program <ul style="list-style-type: none"> • Develop strategies to address the impacts of climate change related but not limited to agriculture, public health, ecosystems and natural resources, energy, infrastructure, and emergency management. | Air Quality Element: Policy AQ 3.8 | Lead: CEO | Years 1-2 |

¹ This analysis is being prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.) and its implementing regulations, the CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.).

| | | | | |
|----------------------------|--|--|---|--------------------|
| | <ul style="list-style-type: none"> Climate change adaptation strategies may be conducted sequentially, starting with the evaluation of threats, vulnerability and risk assessments, identification of mitigation actions, and implementation. Investigate short and long term funding mechanisms. Amend the General Plan accordingly to incorporate proposed climate change adaptation actions. | | | |
| <u>AQ-1</u> | <p>Climate Action Plan Implementation</p> <ul style="list-style-type: none"> Implement the actions identified in the Los Angeles County Climate Action Plan to reduce greenhouse gas emissions. | Air Quality Element: Goal AQ 2, AQ 3 | Lead: Chief Executive Office, Department of Public Health, Department of Parks and Recreation, Department of Regional Planning, Fire, Internal Services Department, Public Works | Ongoing |
| <u>AQ-2</u> | <p>Alternative Renewable Energy Program</p> <ul style="list-style-type: none"> Coordinate with the LADWP to identify potential alternative energy projects or facility types for the unincorporated areas. | Air Quality Element: Goals AQ2, AQ3 | Lead: CSO, DPH, DPR, DRP, Fire, ISD, PW | Ongoing |
| <u>AQ-3</u> | <p>Travel Demand Management</p> <ul style="list-style-type: none"> Encourage ride sharing programs and a permanent transportation management association membership Implement marketing strategies to reduce commute trips. Encourage market based bike sharing programs that support bicycle use around and between transit stations/hubs. | Air Quality Element: Policy AQ 2.6 | Lead: CSO | Ongoing |
| <u>AQ-4</u> | <p>Car Sharing Program</p> <ul style="list-style-type: none"> Conduct a feasibility study to identify priority residential and nonresidential areas for implementation. Explore incentives to encourage employer based and private car sharing programs. | Air Quality Element: Policies AQ 2.6, 2.7 | Lead: CSO | Ongoing |
| <u>AQ-5</u> <u>AQ-1</u> | <p>Efficient Goods Movement</p> <ul style="list-style-type: none"> Coordinate with SCAG to facilitate implementation of a region-wide goods movement strategy. Support SCAG and LA Metro on the evaluation of truck routes throughout the County to identify and target areas for improvement. | Air Quality Element: Goal AQ 2 | Lead: PW Partner: DRP | Ongoing |
| <u>AQ-6</u> | <p>Electrify Construction and Landscaping Equipment</p> <ul style="list-style-type: none"> Develop an outreach and education program. Identify incentives for equipment electrification. Collaborate with regulatory agencies such as South Coast Air Quality Management District (SCAQMD) to identify potential customers. Coordinate with SCAQMD to implement an incentive program and/or lawnmower exchange program. Develop an outreach and education program. | Air Quality Element: Goal AQ4 | Lead: PW Partner: DRP, DPR, BH | Ongoing |

| | | | | |
|-------------|---|---|--|--------------------|
| <u>AQ-7</u> | <p>Water Supply Improvement Program</p> <ul style="list-style-type: none"> • Coordinate with water agencies to identify opportunities to expand groundwater management and begin development of groundwater management plans. • Expand the Low Impact Development (LID) stormwater catchment to more facilities, if feasible. • Identify partnership opportunities with regional entities or opportunities to expand regional programs. | <p>Air Quality Element: Goal AQ3</p> <p>Safety Element: Goal S6</p> | <p>Lead: PW</p> <p>Partner: DPR, DRP, ISD</p> | Ongoing |
| <u>AQ-8</u> | <p>Create New Vegetated Open Space</p> <ul style="list-style-type: none"> • Identify restoration projects. • Consider funding and program options. • Promote community based restoration programs. | <p>Air Quality Element: Policy AQ 2-3</p> | <p>Lead: Fire</p> <p>Partner: DRP, DPR, PW</p> | Ongoing |

NOTES:

1. The PACE Financing Program (existing program number AQ-1) is being deleted because the County of Los Angeles's contracts with Renovate America and Renew Financial expired on April 3, 2020. The County stopped approving new assessment contracts through PACE Funding Group on May 13, 2020. The County continues to work with its PACE administrators to manage existing assessment contracts and provide appropriate consumer protection.
2. The Climate Change Adaptation Program (existing program number AQ-2) is being deleted because the Safety Element Update developed adaptation strategies to address climate change impacts and because the OurCounty Sustainability Plan strategically addressed this directive.
3. ~~The Climate Action Plan Implementation Program proposed as a part of the Air Quality Element amendment is being deleted to eliminate redundancies within the General Plan given that the Climate Action Plan is an implementing subcomponent of the General Plan that has been drafted and no further direction is needed to guide its development.~~
4. ~~The Alternative Renewable Energy Program, Travel Demand Management, Car-Sharing Program, Electrify Construction and Landscaping Equipment, Water Supply Improvement Program, and Create New Vegetated Open Space proposed as a part of the Air Quality Element are being deleted to eliminate redundancies since they are incorporated, in its current or modified form, into the 2045 CAP.~~

Page 2-9 Section 2.3.2 has been revised as follows:

5. Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide California Environmental Quality Act (CEQA) streamlining for development projects (serve as a “qualified CAP”) via the 2045 Climate Action Plan ~~Consistency Review~~ CEQA Streamlining Checklist (2045 CAP Checklist).

Page 2-12 Section 2.3.3 has been revised as follows:

The Draft 2045 CAP is consistent with the requirements for a qualified GHG emissions reduction plan pursuant to CEQA as identified in Table 2-4 for the years 2030, ~~and 2035, and 2045.~~

Page 2-13 Section 2.3.3 has been revised as follows:

Appendix F—2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist: This appendix includes the ~~consistency review~~ CEQA streamlining checklist for new development ~~that elect to streamline~~ environmental review of GHG impacts using the 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b).

Page 2-23 Section 2.6.2.1 Measure ES5 has been revised as follows:

The performance objective for Measure ES5 is to require that all new development choosing to streamline their GHG impacts analysis under CEQA is consistent with the Draft 2045 CAP's goals and GHG emissions reduction targets and to develop reach codes, ordinances, and conditions of approval as needed to achieve this objective. ~~All new development not requiring General Plan amendments shall be consistent with the Draft 2045 CAP.~~

Page 2-26 Section 2.6.2.5 Measure E1 has been revised as follows:

Measure E1: ~~Transition~~ Decarbonize Existing Buildings to all Electric.

The primary performance objectives for Measure E1 are to: (1) ~~electrify~~ decarbonize 25 percent of the existing residential buildings by 2030, 40 percent by 2035, and 80 percent by 2045; (2) ~~electrify~~ decarbonize 15 percent of the existing nonresidential buildings by 2030, 25 percent by 2035, and 60 percent by 2045; and (3) require zero net energy (ZNE)² for 50 percent of all major renovations by 2030, 75 percent by 2035, and 100 percent by 2045.

Page 2-26 Section 2.6.2.5 Measure E2 has been revised as follows:

Measure E2: Decarbonize Standardize All Electric New Development.

The performance objectives for Measure E2 are to: (1) require that all applicable new buildings to be zero GHG emissions ~~are all electric~~ (taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face), such that 90 percent of new residential and nonresidential buildings are zero-GHG emission buildings ~~all electric~~ by 2030, 95 percent by 2035, and 100 percent by 2045; and (2) require that all applicable new residential and nonresidential buildings are ZNE, such that 90 percent of new residential and nonresidential are ZNE by in 2030.

Page 2-30 Section 2.6.3 has been revised as follows:

As shown in the table, in 2030, nearly half (46 percent) of the anticipated reductions would be attributed to energy-related measures, including zero-carbon electricity, the sunset strategy for oil and gas operations, ~~electrification~~ decarbonization of the existing building stock, local renewable energy generation, decarbonization of new development, and energy efficiency.

Page 2-30 Table 2-10: Measure E1 has been revised and modified as follows:

E1 ~~Transition~~ Decarbonize Existing Buildings to All Electric

Page 2-30 Table 2-10: Measure E2 has been revised and modified as follows:

² Zero net energy is defined by the U.S. Department of Energy as follows: "An energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy" (U.S. Department of Energy 2015).

E2 Decarbonize ~~Standardize All-Electric~~ New Development

Page 2-31 to 2-31 Section 2.7 has been revised and modified as follows:

- **Phase 1: Short-Term Actions (2024–2030)**—Short-term actions that are high-priority with large emissions reductions that would lay the foundation for longer term actions. The short-term target of the Draft 2045 CAP is to reduce GHG emissions in the County by 40 percent below 2015 levels by 2030.
- **Phase 2: Medium-Term Actions (2030+–2035)**—Actions needed to achieve the 2030 or 2035 GHG emissions reduction targets that may need additional time, funding, or new technology to implement. The medium-term target of the Draft 2045 CAP is to reduce GHG emissions in the County by 50 percent below 2015 levels by 2035.
- **Phase 3: Long-Term Actions (2035+–2045)**—Actions needed to achieve the 2045 GHG emissions reduction target that may need substantial time, funding, or new technology to implement. The long-term target of the Draft 2045 CAP is to reduce GHG emissions in the County by 83 percent below 2015 levels by 2045. The long-term aspirational goal of the Draft 2045 CAP is to achieve carbon neutrality in the County by 2045.

Page 2-32 to 2-33 Table 2-11: Strategy 1—Measure ES4.3 and ES5 have been revised and modified as follows:

| Strategy 1: Decarbonize the Energy Supply (cont.) | | | |
|---|---|--------------|--------------|
| ES4.3 Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency. | X | X | X |
| ES5 Establish GHG Requirements for New Development: Develop and implement requirements <u>for new projects choosing to streamline their GHG impacts analysis under CEQA</u> to ensure that <u>such</u> new development is consistent with the 2045 CAP goals as well as its milestone targets for 2030, 2035, and 2045. These requirements include applicant completion of a <u>2045 CAP CEQA streamlining project review consistency</u> checklist for non-CEQA exempt new development requiring discretionary approvals to demonstrate consistency with the 2045 CAP <u>and thereby streamline environmental review of their GHG impacts using the 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b).</u> To demonstrate <u>consistency compliance</u> with the 2045 CAP <u>CEQA streamlining</u> requirements, all projects that do not screen out of the 2045 CAP consistency review process must implement either: 1) all feasible applicable checklist measures, or 2) for infeasible checklist measures, alternative project emission reduction measures. The project review checklist will be used <u>in one two ways:</u> 1) for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for streamlined project-specific CEQA GHG analysis, <u>or 2) for projects required or electing to prepare project-specific CEQA GHG analyses, to demonstrate that all feasible applicable checklist measures or alternative project emission reduction measures have nevertheless have been implemented, either as project features or GHG mitigation measures. Projects that do not implement all feasible applicable checklist measures or alternative project emission reduction measures may have</u> | X | X | X |

| | | | |
|--|--------------|--|--|
| significant GHG impacts because they could conflict with an applicable GHG reduction plan per Guidelines Appendix G Section VII. They may also be inconsistent with the General Plan because the Cap is a component of the Air Quality Element. In addition, the County will assess the feasibility of developing a GHG offsets/credit program to create a pathway toward achieving the aspirational 2045 goal of carbon neutrality. | | | |
| ES5.2 Implement the 2045 CAP CEQA streamlining consistency review checklist for new development to demonstrate consistency with the 2045 CAP’s strategies, measures, and actions for purposes of streamlining environmental review of GHG impacts using the 2045 CAP’s PEIR pursuant to CEQA Guidelines Section 15183.5(b). | X | | |
| ES5.3 Evaluate a program for reducing GHG emissions for new development that require General Plan amendments | X | | |
| ES5.4 3 Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. | X | | |

Page 2-36 Table 2-11: Strategy 5—Measure E1 & E2 has been revised and modified as follows:

| Strategy 5: Decarbonize Buildings | | | |
|--|---|---|---|
| E1 (Core) Transition <u>Decarbonize Existing Buildings to all electric</u>: As the carbon intensity of grid-supplied energy <u>electricity</u> decreases, decarbonization must be combined with building <u>decarbonization electrification</u> , shifting <u>the energy more</u> load from fossil fuels to carbon-free energy sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to <u>decarbonize electrify</u> applicable existing buildings. <u>A primary alternative to fossil natural fuel is renewable electricity supplied by CPA</u> . Biomethane is another preferred alternative to fossil natural gas; however, the existing opportunities for widespread use of biomethane are limited. Consider the use of other zero-GHG-emission fuel sources for buildings <u>will also be considered</u> . | X | X | X |
| E1.1 Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require <u>zero-GHG emission appliances electric water and space heating</u> . Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. | X | X | |
| E1.2 Increase alternatives to <u>fossil</u> natural gas uses, such as for cooking, in existing buildings. Establish carbon <u>and GHG</u> intensity limits for existing nonresidential and residential buildings over a certain size. | X | X | |
| E2 Standardize All Electric <u>Decarbonize New Development</u>: This measure aims to <u>electrify decarbonize</u> all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. | X | | |

| | | | |
|--|---|--|--|
| <p>E2.1 Adopt an ordinance requiring all applicable new buildings to be <u>zero-GHG emission fully electric with no natural gas hookups</u>. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. <u>Require all new development to be electric-ready.</u></p> | X | | |
|--|---|--|--|

Page 2-37 Table 2-11: Strategy 6 – Action 4.1 has been revised and modified as follows:

Action E4.1 – Adopt Building Performance Standards for energy efficiency in existing buildings. Require buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements, and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters.

Page 2-38 Table 2-11: Strategy 8—Measure W1.2 and W2.3 has been revised and modified as follows:

| | | | |
|--|----------|--------------|--------------|
| <p>W1.2 Implement, enforce, and expand to the maximum extent feasible the single-use plastics ordinance and <u>expanded polystyrene ordinance ban</u>.</p> | | | |
| <p>W2.2 Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all County operations; establish a contamination monitoring plan for organic waste programs.</p> | X | X | |
| <p>W2.3 Collaborate with the Los Angeles County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel <u>and other beneficial uses</u> (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste.</p> | <u>X</u> | X | X |

Page 2-40 Section 2.7.1 has been revised and modified as follows:

2.7.1 2045 Climate Action Plan CEQA Streamlining Consistency-Checklist

As discussed in Section 2.3.3, *Qualified Greenhouse Gas Emissions Reduction Plan*, projects in the County can demonstrate consistency with the Draft 2045 CAP (as a qualified GHG emissions reduction plan) if they are consistent with the 2045 CAP’s future growth projections and with the CEQA streamlining requirements identified in the 2045 CAP Checklist its GHG emission reduction measures.

The County has developed the 2045 CAP Checklist to assist with determining the consistency of projects with the Draft 2045 CAP for purposes of CEQA streamlining. The 2045 CAP Checklist provides individual projects the opportunity to demonstrate that they are reducing GHG emissions; it also ensures that future projects would achieve their proportion of emissions reductions consistent with the assumptions of the Draft 2045 CAP. A project would demonstrate consistency with the Draft 2045 CAP by complying with the CEQA streamlining requirements incorporating the GHG emission reduction measures included in the ~~Draft 2045 CAP Checklist that apply to new projects~~.

- If a project would be consistent with the General Plan growth projections and Housing Element and complies with all CEQA streamlining requirements ~~could demonstrate consistency with the Draft 2045 CAP~~ by completing the 2045 CAP Checklist, then the project would be considered consistent with the Draft 2045 CAP and would be eligible for CEQA streamlining of its project-level GHG analysis.

Page 2-41

Section 2.7.1 has been revised and modified as follows:

- If a project would be inconsistent with the General Plan growth projections Housing Element and require a General Plan amendment, then it would not be able to use this the 2045 CAP Checklist for CEQA streamlining. Such a project would have to undergo its own project-level analysis of GHG impacts pursuant to CEQA.
- If a project could not comply with all CEQA streamlining requirements demonstrate consistency with the Draft 2045 CAP by completing the 2045 CAP Checklist, by implementing equivalent replacement strategies, or by implementing a qualified off-site GHG emission reduction project, as provided for in the 2045 CAP Checklist, then a project-specific GHG analysis would be required. In this case, it is encouraged that the project incorporate all the CEQA streamlining requirements in the 2045 CAP Checklist, though this is not required ~~implementation of applicable CAP Checklist items that are feasible would still be required.~~

Consistency with General Plan Growth Projections ~~Land Use Assumptions~~.

Projects consistent with the demographic forecasts and land use projection assumptions used in the Draft 2045 CAP can use the 2045 CAP Checklist to demonstrate compliance with the CEQA streamlining requirements consistency with the 2045 CAP. If consistent, these projects could rely on the programmatic environmental review contained in the certified PEIR for the 2045 CAP.

If a project would not be consistent with the General Plan's growth projections land use designations, then it would not be eligible for CEQA streamlining by using the 2045 CAP Checklist. Projects inconsistent with the General Plan's growth projections land use designations would prepare a project-specific analysis of GHG emissions. Such an analysis would quantify existing and projected GHG emissions for the project and is encouraged to incorporate applicable items from the 2045 CAP Checklist to the maximum extent feasible (though this is not required), along with any identified project-specific mitigation measures.

Offsite GHG Emission Reduction Projects. As part of the 2045 CAP Checklist, the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all CEQA streamlining requirements in the required 2045 CAP Checklist items, would have the option to participate in the offsite GHG emissions reduction program.

3.2.4 Chapter 3, Environmental Analysis

3.2.4.1 Section 3.1 Introduction to Environmental Analysis

No text changes have been made to Section 3.1, *Introduction to Environmental Analysis*.

3.2.4.2 Section 3.2 Aesthetics

Page 3.2-8 Section 3.2.2.3 has been revised as follows:

These and other relevant measures and actions include Action T3.3 (which would facilitate the use of shading [shadow] and shade structures); measures and actions associated with Strategy 1, Decarbonize the Energy Supply; Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; Measures T6, T7, T8, and T9, each regarding the ~~electrification~~ decarbonization of vehicles; and Strategy 5, regarding the ~~electrification~~ decarbonization of buildings. These measures and actions could facilitate renewable energy generation and infrastructure projects, the development of which could affect aesthetics.

Page 3.2-9 Section 3.2.2.3 has been revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

Page 3.2-12 Impact 3.2-2 has been revised as follows:

Draft 2045 CAP strategies such as Strategy 5, Strategy 6, and Strategy 7 would include measures that would require retrofits to existing buildings to electrify appliances, increase energy efficiency, and reduce water consumption. For example, Measure E1 would ~~Transition~~ Decarbonize Existing Buildings to all ~~electric~~ and Measure E4 would improve the energy efficiency of existing buildings.

3.2.4.3 Section 3.3 Agricultural and Forestry Resources

Page 3.3-12 Section 3.3.2.3 has been revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review

Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will be developing an offsite GHG emissions reduction program.

3.2.4.4 Section 3.4 Air Quality

Page 3.4-35 Section 3.4.2.3 has been revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will be developing an offsite GHG emissions reduction program.

Page 3.4-36 Impact 3.4-1 has been revised as follows:

The Draft 2045 CAP would be implemented through future projects facilitated by the proposed Draft 2045 CAP measures and actions, as well as through the application of the Draft 2045 CAP CEQA Streamlining Consistency Checklist (Appendix F) to allow for streamlining of GHG impacts under CEQA. Additional analysis would be needed to determine the impacts of implementation of these measures at specific locations, and future projects would be analyzed at the project level and would be subject to CEQA.

For future projects seeking to use the Draft 2045 CAP CEQA Streamlining Consistency Checklist for CEQA GHG streamlining, the County would determine whether the future project would be consistent with the Draft 2045 CAP. As described above, projects implementing Draft 2045 CAP measures and actions that are deemed consistent with local land use plans would also be consistent with the AQMP, and this applies to each horizon year.

Page 3.4-43 Impact 3.4-1 has been revised as follows:

The Draft 2045 CAP would be implemented through future projects facilitated by the proposed Draft 2045 CAP measures and actions, as well as through the application of the Draft 2045 CAP CEQA Streamlining Consistency Checklist (Appendix F) to allow for streamlining of GHG impacts under CEQA.

Page 3.4-44 Impact 3.4-1 has been revised as follows:

For future projects seeking to use the Draft 2045 CAP CEQA Streamlining Consistency Checklist for CEQA GHG streamlining, the County would determine whether the future project would be consistent with the Draft 2045 CAP.

Page 3.4-56 Impact 3.4-2 has been revised as follows:

However, Draft 2045 CAP measures and actions may facilitate new facilities and projects such as decarbonize existing buildings and new development electrification (Measures E1 and E2), new renewable energy facilities (Measure ES3), energy storage facilities (Measure ES4), building retrofits for energy efficiency (Measure E4), new or expanded recycled water facilities (Measure

E5), new electric vehicle charging station infrastructure (Measure T6), new or expanded waste processing facilities (Measures W1 and W2), and demolition of impervious surfaces and planting trees (Measure A3).

Page 3.4-58 Impact 3.4-2 has been revised as follows:

Operational emissions from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County would be further reduced as electric vehicles (Measures T6, T7, and T8), renewable energy use (Measures ES2 and ES3), decarbonize existing buildings and new development electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) become more widespread.

Page 3.4-65 Impact 3.4-3a has been revised as follows:

Operational emissions from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County would be further reduced as renewable energy use (Measures ES2 and ES3), decarbonize existing buildings and new development electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) are implemented.

Page 3.4-67 Impact 3.4-3a has been revised as follows:

However, implementation of the Draft 2045 the CAP would substantially reduce fossil fuel use and associated TAC emissions from operational activities as a result of renewable energy use (Measures ES2 and ES3), decarbonize existing buildings and new development electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) are implemented, with greater reduction in fossil fuel use across horizon years 2030, 2035, and 2045.

Page 3.4-77 Impact 3.4-7 has been revised as follows:

Implementation of the Draft 2045 CAP would substantially reduce fossil fuel use and regional emissions from operational activities as a result of decarbonize existing buildings and new development electrification (Measures E1 and E2) and other decarbonization actions (Measure E3) are implemented.

3.2.4.5 Section 3.5 Biological Resources

Page 3.5-16 to 3.5-17 Section 3.5.2.3 has been revised as follows:

Renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward decarbonization of the energy supply (e.g., Measure ES2: Procure Zero-Carbon Electricity, Measure ES3: Increase Renewable Energy Production, and Measure ES4: Increase Energy Resilience), the electrification of vehicles (e.g., Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales, Measure T7: Electrify County Fleet Vehicles, Measure T8: Accelerate Freight Decarbonization, and Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment) and ~~the electrification of~~ decarbonize existing buildings (Strategy 5, Decarbonize Buildings) are particularly relevant to the analysis of impacts to

biological resources because related development could affect special-status species and habitats, sensitive natural communities, state or federally protected wetlands, interference with species movement or impediment of the use of native wildlife nursery sites, or the conversion of oak woodlands or other unique native woodlands.

Page 3.5-17 Section 3.5.2.3 has been revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will be developing an offsite GHG emissions reduction program.

Page 3.5-29 Section 3.5.2.4 has been revised as follows:

The Draft 2045 CAP would contribute a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.5-1 and 3.5-3 3.5-4.

3.2.4.6 Section 3.6 Cultural Resources

Page 3.6-22 Section 3.6.2.3 has been revised as follows:

These and other relevant measures and actions include the renewable energy and related infrastructure projects that would be facilitated by Draft 2045 CAP measures and actions toward the following categories of strategies: (1) Decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) The electrification of vehicles (e.g., Measure T6, Increase Zero-Emission Vehicle Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) The electrification of decarbonize existing buildings (Strategy 5, Decarbonize Buildings).

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

3.2.4.7 Section 3.7 Energy

Page 3.7-10 Section 3.7.2.3 has been revised as follows:

- (8) Measure E1 and associated Actions E1.1, E1.2, E1.3, E1.4 (which would result in the electrification decarbonization of applicable existing buildings and achieve zero net energy for certain buildings, while taking into

consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face);

- (9) Measure E2 and associated Actions E2.1 and E2.2 (which would require ~~all electric and~~ zero net GHG emissions energy for all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face);

Page 3.7-11 Section 3.7.2.3 has been revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

Page 3.7-12 to 3.7-13 Impact 3.7-1 has been revised as follows:

Further the Draft 2045 CAP would promote adoption of renewable energy production in both new and existing residential and commercial development (Measure ES3), which would decrease grid energy demand and advance the County toward its ~~electrification~~ decarbonization and zero net energy targets (Measures ES2, E1, and E2), all of which would support the state’s energy efficiency and renewable energy goals.

Implementation of CAP Measure E1 and associated Actions E1.1, E1.2, E1.3, and E1.4 would result in the ~~electrification~~ decarbonization of applicable existing buildings and achieve zero net energy for certain new buildings. This aligns with building ~~electrification~~ decarbonization as a major focal point of state agencies and electric utilities in reaching the state’s renewable energy and GHG reduction goals. According to SCE, approximately one-third of space and water heating in all buildings within SCE’s service territory must be electric by 2030 and three-quarters must be electric by 2045 to meet state goals (SCE 2019). Pursuant to SB 1477, the combined CPUC–approved and proposed funding for building ~~electrification~~ decarbonization projects and developments is approximately \$435 million through 2024 (CPUC 2020). One of the CPA’s three major program measure categories to build and strengthen future local programs is ~~electrification~~ decarbonization, which includes public charging of electric vehicles, building ~~electrification~~ decarbonization code incentives, all-electric post-fire rebuilding, and natural gas appliance replacement (CPA 2020). Therefore, the Draft 2045 CAP would facilitate building ~~electrification~~ decarbonization to support these state goals.

~~electrification~~ Decarbonization may put additional strain on the electricity grid as the demand for electricity increases, including in rural communities and other parts of the County that are already facing grid capacity problems such as blackouts and brownouts. Although the maintenance and improvement of the electricity grid is outside of the jurisdiction of the County, state agencies and electric utilities are working to strengthen and enhance the electricity grid to

increase the supply of renewable electricity along with grid reliability and resilience.

To achieve growth and reliability in the electricity grid, SCE is planning grid investments of up to \$75 billion. These investments will be used for multiple purposes: (1) integrate bulk renewable generation and storage and serve the load growth associated with transportation and building ~~electrification~~ decarbonization; (2) provide transmission upgrades for generation interconnections within the state; (3) increase utility-scale storage to balance load and resources and to minimize transmission and distribution upgrades; (4) provide grid upgrades to meet increased demand and peak loads; and (5) modernize the grid to harness the full potential of Distributed Energy Resources (DERs) (SCE 2019). The CPA plans for \$200 million in local investment in customer programs and community priorities centered around resiliency and grid management, building and transportation ~~electrification~~ decarbonization, and local renewable energy procurement (CPA 2020).

Page 3.7-14 Impact 3.7-1 has been revised as follows:

In summary, the Draft 2045 CAP's measures and actions regarding building and vehicle ~~electrification~~ decarbonization were developed with the understanding that state agencies and utilities have implementation strategies in place to increase the capacity of the grid and improve its reliability as electricity demand throughout the County increases. Therefore, the Draft 2045 CAP would not result in the inefficient consumption of energy resources related to ~~electrification~~ decarbonization and grid capacity.

The Draft 2045 CAP would also include strategies, with corresponding implementation measures and actions, that would reduce vehicle miles traveled, emissions, and transportation fuel consumption. The CAP includes transportation strategies, measures and actions that would reduce fuel consumption such as: locating development within High Quality Transit Areas; emphasizing non-motorized travel through the County's Pedestrian Action Plan, Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan; expanding the electric vehicle charging infrastructure; and partnering with transit agencies to electrify the County bus and shuttle fleets. For example, the Draft 2045 CAP aims to electrify 100 percent of the County bus fleet by 2035 (Measure T7), in line with Metro's goal of electrification for its fleet.

3.2.4.8 Section 3.8 Geology and Soils

Page 3.8-15 Section 3.8.2.3 has been revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

3.2.4.9 Section 3.9 Greenhouse Gas Emissions

Page 3.9-36 Section 3.9.2.3 is revised as follows:

Measure E1: ~~Transition~~ Decarbonize Existing Buildings to all Electric.

This measure aims to ~~electrify~~ decarbonize applicable existing buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.

Measure E2: Decarbonize Standardize All Electric New Development. This measure aims to ~~electrify~~ decarbonize all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.

Page 3.9-37 Section 3.9.2.3 has been revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an off-site GHG emissions reduction program.

Page 3.9-45 Impact 3.9-2 has been revised as follows:

Further, the County has developed the Draft 2045 CAP CEQA Streamlining Consistency-Checklist to assist with determining project consistency with the Draft 2045 CAP for purposes of CEQA streamlining. The Draft 2045 CAP CEQA Streamlining Consistency Checklist provides individual projects the opportunity to demonstrate that they are reducing GHG emissions; it also helps ensure that projects facilitated by the Draft 2045 CAP would achieve their proportion of emissions reductions consistent with the assumptions of the Draft 2045 CAP.

3.2.4.10 Section 3.10 Hazards and Hazardous Materials

Page 3.10-19 Section 3.10.2.3 is revised as follows:

Renewable energy generation and infrastructure projects could also be facilitated by measures and actions associated with Strategy 1, Decarbonize the Energy Supply; Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; Measures T7, T8, and T9, regarding the electrification of vehicles; and Strategy 5, regarding the ~~electrification~~ decarbonization of buildings.

Page 3.10-20 Section 3.10.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review

Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

3.2.4.11 Section 3.11 Hydrology and Water Quality

Page 3.11-23 Section 3.11.2.3 has been revised as follows:

These and other relevant measures and actions include: Action T6.7, which could facilitate increased use of green hydrogen vehicles throughout the County (hydrogen fuel generation is a water-intensive process [see, for example, Beswick et al. 2021]); and the renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward (a) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (b) the electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (c) ~~the electrification of~~ decarbonization buildings (Strategy 5, Decarbonize Buildings).

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

Page 3.11-26 Impact 3.11-2 has been revised as follows:

Water demand could be affected by projects facilitated by Draft 2045 CAP measures and actions toward (a) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (b) the electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (c) ~~the electrification of~~ decarbonization of buildings (Strategy 5, Decarbonize Buildings)—for example, for periodic solar PV panel washing.

Page 3.11-27 Impact 3.11-2 has been revised as follows:

Some projects facilitated by Draft 2045 CAP measures and actions (including those facilitated by Measure E1, ~~Transition~~ Decarbonize Existing Buildings to all Electric, and Measure E4, Improve Energy Efficiency of Existing Buildings) would be limited to redevelopments and reuses of currently developed areas, and so would result in relatively minor increases in impervious areas.

3.2.4.12 Section 3.12 Land Use and Planning

Page 3.12-16 Section 3.12.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

Page 3.12-19 Impact 3.12-1 is revised as follows:

These relevant measures and actions include Measure ES2, Standardize All-Electric New Development; Measure T7, Electrify County Fleet Vehicles; and Measure E1, ~~Transition~~ Decarbonize Existing Buildings to all Electric.

One potential outcome of the ~~electrification~~ decarbonization of residential buildings, as encouraged by Measure E1 under Strategy 5, could be the increased use of candles, generators, grills, hibachis, barbeques, fireplaces, charcoal lighters, and chimneys in rural areas subject to power outages.

Page 3.12-20 to 3.12-29 Table 3.12-2 all mentions of Policy AQ3.5 have been revised as follows:

Policy AQ 3.5: ~~Encourage energy conservation in new development and municipal operations. Require the full electrification-decarbonization of new development. Encourage the retrofit of existing development to achieve full electrification~~ decarbonization.

Page 3.12-21 Table 3.12-2 Measure ES5 has been revised as follows:

All new development choosing to streamline their GHG impacts analysis under CEQA is consistent with the Draft 2045 CAP's goals and GHG emissions reduction targets and to develop reach codes, ordinances, and conditions of approval as needed to achieve this objective. ~~All new development not requiring General Plan amendments shall be consistent with the Draft 2045 CAP.~~

Page 3.12-27 Table 3.12-2 Measure E1 has been revised as follows:

Measure E1: ~~Transition~~ Decarbonize Existing Buildings to all Electric.

Page 3.12-28 Table 3.12-2 Measure E2 has been revised as follows:

Measure E2: Decarbonize ~~Standardize All Electric~~ New Development.

3.2.4.13 Section 3.13 Noise

Page 3.13-16 Section 3.13.2.3 is revised as follows:

Further, measures and actions associated with Strategy 1, *Decarbonize the Energy Supply*; Measure ES2, *Procure Zero-Carbon Electricity*; Measure ES3,

Increase Renewable Energy Production; Strategy 4, Institutionalize Low-Carbon Transportation; Measure T6, Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales, Measure T8, Accelerate Freight Decarbonization, and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment, each regarding the electrification of vehicles; and Strategy 5, Decarbonize Buildings, regarding the ~~electrification~~ decarbonization of buildings, could facilitate renewable energy generation and infrastructure projects, the development of which could cause noise.

Page 3.13-17 Section 3.13.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

Page 3.13-18 Impact 3.13-1 is revised as follows:

Measures that would result in construction activities that would require heavy equipment and cause an increase in temporary noise levels in the vicinity of future project sites include expansion of bicycle and pedestrian networks, building ~~electrification~~ decarbonization for existing buildings, new renewable energy facilities, expansion of energy storage, building retrofits for energy efficiency, new or expanded water treatment facilities, new or expanded waste processing facilities, and demolition of impervious surfaces and planting trees.

Page 3.13-21 Impact 3.13-2 is revised as follows:

Measures that would result in construction activities that would require heavy equipment and generate groundborne vibration and groundborne noise include expansion of bicycle and pedestrian networks, building ~~electrification~~ decarbonization for existing buildings, new renewable energy facilities, expansion of energy storage, building retrofits for energy efficiency, new or expanded water treatment facilities, new or expanded waste processing facilities, and demolition of impervious surfaces and planting trees.

3.2.4.14 Section 3.14 Population and Housing

Page 3.14-7 Section 3.14.2.3 is revised as follows:

Decarbonization of energy section measures in the Draft 2045 CAP include: Measure ES2: Procure Zero-Carbon Electricity; Measure ES3: Increase Renewable Energy Production; and Measure ES4: Increase Energy Resilience. Measures that could facilitate the electrification of vehicles include: Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales; Measure T7: Electrify County Fleet Vehicles; Measure T8: Accelerate Freight Decarbonization; and Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles & Equipment. In addition, Strategy 5, Decarbonize Buildings, could facilitate the ~~electrification~~ decarbonization of buildings.

Page 3.14-8 Section 3.14.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

3.2.4.15 Section 3.15 Transportation

Page 3.15-20 Section 3.15.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

3.2.4.16 Section 3.16 Tribal Cultural Resources

Page 3.16-8 Section 3.16.2.3 is revised as follows:

These and other relevant measures and actions include the renewable energy and related infrastructure projects that would be facilitated by Draft 2045 CAP measures and actions toward the following categories of strategies: (1) Decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) The electrification of vehicles (e.g., Measure T6, Increase Zero-Emission Vehicle Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) The electrification decarbonization of buildings (Strategy 5, Decarbonize Buildings).

Page 3.16-9 Section 3.16.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

3.2.4.17 Section 3.17 Utilities and Service Systems

Page 3.17-13 Section 3.17.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), LA County will develop an offsite GHG emissions reduction program.

3.2.4.18 Section 3.18 Wildfire

Page 3.18-16 Section 3.18.2.3 is revised as follows:

These and other relevant measures and actions include: Measure ES2, Procure Zero-Electricity; Measure ES3, Increase Renewable Energy Production; Measure T1, Increase Density Near High-Quality Transit Areas; Measure T2, Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use; Measure T3, Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips; Measure T4, Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation; Measure T6, Increase Zero-Emissions Vehicle Market Share and Reduce Gasoline and Diesel Fuel Sales; Measure T7, Electrify County Fleet Vehicles; Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment; Measure E1, ~~Transition~~ Decarbonize Existing Buildings to all Electric; and Measure A1, Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands.

Page 3.18-17 Section 3.18.2.3 is revised as follows:

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan CEQA Streamlining Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program.

Page 3.18-19 Impact 3.18-2 is revised as follows:

One potential outcome of residential building ~~electrification~~ decarbonization, as encouraged by Measure E1 under Strategy 5, could be the increased use of candles, generators, grills, hibachis, barbeques, fireplaces, charcoal lighters, and chimneys in areas subject to frequent power outages.

Page 3.18-20 Impact 3.18-2 is revised as follows:

Additionally, Measure E1 calls for ~~Transition~~ Decarbonization of existing buildings to all Electric energy while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.

3.2.5 Chapter 4, Alternatives

Page 4.9 Section 4.3.6 is revised and modified as follows:

At the time of RDEIR preparation, the County was conducting an amortization study to determine the fastest possible phase-out timeline for all existing oil wells and production facilities. This study will consider the legal, environmental, political, and cost considerations of the phase-out. The amortization study will guide the strategy to phase out oil and gas extractions and facilities. Without having the results of the amortization study in hand, it is not possible to know

when the earliest complete phase-out could occur, or even whether it is feasible to achieve complete phaseout by 2045. ~~Achieving a complete phase-out by 2045 would be a daunting challenge.~~

The Complete Phase-Out of Oil and Gas Operations by 2030 Alternative was not carried forward for more detailed review for several reasons. First, this alternative would not clearly avoid or substantially lessen any of the potential significant impacts of the Project. It is possible that this alternative could worsen or increase the Project’s potential significant impacts, such as short-term localized construction-related air quality and health risk impacts from decommissioning of oil and gas wells and remediation activities at contaminated sites.

Page 4-11 Section 4.4.1 is revised and modified as follows:

~~CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate the impacts of a no project alternative to enable a comparison of the potential environmental consequences that would result with and without the proposed project. In this case, An EIR’s discussion of alternatives to the proposed project must include a “no project alternative” to allow a comparison of the environmental impacts of approving the proposed project with the effects of not approving it. (CEQA Guidelines, § 15126.6(e)(1).) †The No Project Alternative examines a scenario in which the County would not approve the 2045 CAP for implementation in the unincorporated areas. Under such a scenario, none of the GHG emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented and none of the benefits and co-benefits identified would be realized.~~

Page 4-12 to 4-13 Section 4.4.1 is revised and modified as follows:

~~CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate the impacts of a no project alternative to enable a comparison of the potential environmental consequences that would result with and without the proposed project. In this case, the No Project Alternative examines a scenario in which the County would not implement the Project’s GHG emission approve the 2045 CAP for implementation in the unincorporated areas. Under such a scenario, none of the emissions reduction strategies, measures, or actions, which would facilitate fewer projects compared with implementation of the Revised Draft outlined in the 2045 CAP. Because the No Project Alternative would facilitate fewer projects, the No Project Alternative would result in fewer adverse physical environmental impacts on the project area and its surrounding environment in comparison to the impacts associated with implementation of the Revised Draft 2045 CAP strategies, measures, and actions. However, in the long-term, the No Project Alternative would result in fewer environmental would be implemented and none of the benefits and co-benefits to the County overall because air pollutant and GHG emissions would be much higher than emissions levels associated with all other alternatives and the Project - The No Project Alternative would result in greater human health risks associated with exposure to toxic air contaminants than all other alternatives and the Project,~~

because all other alternatives and the Project would substantially reduce toxic air contaminant (TAC) emissions in the County. The No Project Alternative would neither realize the long-term GHG emission reduction benefits associated with implementation of the Revised Draft 2045 CAP (and all the co-benefits that would also occur, such as reduced criteria pollutant and TAC emissions), nor provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet and exceed the 2045 direct emission reduction target and carbon neutrality goal established by AB 1279.

Further, the GHG emissions reduction strategies included in the Air Quality Element of the General Plan—known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020*—expired in 2020. Accordingly, the County would not continue to implement those strategies, which addressed emissions from land use, transportation, building energy, water consumption, and waste generation. The No Project Alternative would not further many County goals and policies. Specifically, the No Project Alternative would not achieve or support the County Board of Supervisors’ motions pertaining to supporting the Paris Agreement, equitable energy grid resiliency, zero-emissions medium- and heavy-duty vehicles, climate resilient communities, and equitable decarbonization of buildings.

The No Project Alternative would also include continued implementation of other plans and programs that would have the result of reducing GHG emissions to the extent that such plans and programs were adopted before January 3, 2022, when the Notice of Preparation was published. The No Project Alternative is essentially captured in the 2045 CAP’s Adjusted business-as-usual forecast, which accounts for future growth under business-as-usual conditions³ but adjusts for federal, state, and County legislation and regulations that were implemented before development of the Draft 2045 CAP.⁴ Further, efforts to reduce GHG emissions would continue outside the study area—for example, in incorporated areas of Los Angeles County, in adjacent jurisdictions, and in other locations outside the County where land use and related activities are governed by regional, state, or federal agencies, such as the Southern California Association of Governments, California Air Resources Board, U.S. Forest Service, and National Park Service. This alternative would not provide a clear pathway for the County to meet and exceed the statewide 2030 GHG emissions reduction goal identified in Senate Bill (SB) 32 or to meet the 2045 carbon neutrality goal established by Assembly Bill (AB) 1279.

³ The “business-as-usual” forecast assumes no action is taken to reduce GHG emissions in the County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

⁴ These adjustments include implementation of the California Energy Commission’s 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (Executive Order S-01-07).

~~In addition~~ Importantly, the No Project Alternative would not ~~meet-achieve~~ any of the Project's basic objectives. ~~For example~~ Specifically, the No Project Alternative would not implement the climate action policies of the General Plan (Objective 1); would not identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals (Objective 2); would not provide a road map to achieve GHG reductions to meet the GHG emission reduction targets (Objective 3); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects ("qualified CAP") (Objective 5). Nonetheless, as required by CEQA, the No Project Alternative has been carried forward for more detailed review. See **Table 4-1, Screening Summary: No Project Alternative.**

Page 4-14

Section 4.4.2 has been revised and modified as follows:

Implementation of Alternative 1 would generally result in the same environmental impacts as the Project but would result in greater environmental impacts associated with hazards and hazardous materials as well as utilities and service systems. Implementation of Alternative 1 would facilitate projects that include wind projects with wind turbines that could result in a safety hazard for people residing or working in the project area due to collision risk, interference with radar or other air navigation tools, and other hazards related to air navigation. Additionally, implementation of this alternative would facilitate projects that would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on the purchase of carbon offsets. As such, some of the adverse impacts caused by projects facilitated by Alternative 1, as compared to impacts under the Revised Draft 2045 CAP, would occur outside the County and so would not be subject to the same local thresholds that apply to the Project, such as thresholds established in the County General Plan or by the South Coast Air Quality Management District. Alternative 1 would result in fewer environmental benefits to the County overall because the reductions in air pollutant and GHG emissions could be realized elsewhere in Southern California, the State, or the Pacific Southwest, and because greater environmental impacts could result from wind projects facilitated by the purchase of carbon offsets.

Importantly, Alternative 1 would not provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet the 2045 direct emission reduction target established by AB 1279. This is because CARB's statewide targets are to reduce direct emissions occurring within state boundaries, and do not allow for carbon offsets occurring outside of the state to contribute to these targets (for example, AB 1279 states that it is "the policy of the state... to ensure that by 2045, statewide anthropogenic greenhouse

gas emissions are reduced to at least 85% below the 1990 levels”). Only the state’s 2045 net zero GHG emissions target appears to allow offsets. Similarly, Alternative 1 would not provide a clear pathway for the County to meet the County’s local GHG reduction targets identified in the Revised Draft 2045 CAP. Specifically, the Revised Draft 2045 CAP’s GHG reduction targets for 2030, 2035, and 2045 are to reduce direct, in-boundary county emissions to specific levels below 2015 emissions. Carbon offsets would likely not produce emission reductions within unincorporated county boundaries because there likely aren’t enough offsets within the County to achieve these GHG targets. As such, Alternative 1 may not achieve Project Objective 2.

Alternative 1 would also likely not achieve Project Objective 5 to allow CEQA streamlining for future development projects because the Revised Draft 2045 CAP’s GHG emission reduction targets apply to GHG emissions associated with activities occurring within unincorporated county boundaries, reducing emissions outside of county boundaries for activities not covered by the plan through the use of carbon offsets would not contribute toward meeting the represent Revised Draft 2045 CAP’s GHG emission reduction targets.

Page 4-15 Section 4.4.3 has been revised and modified as follows:

Implementation of Alternative 2 would also result in greater transportation impacts compared with the Project, as construction of ZNE buildings would increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways. Alternative 2 would create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities and result in a greater impact than the Project. This alternative would also contribute to a greater impact on utilities and service systems because projects facilitated by Alternative 2 would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on water and energy efficiencies.

Page 4-17 Section 4.4.4 has been revised and modified as follows:

For example, Measure T6, Increase ZEV Market Share, has a 2030 performance goal of a 30 percent ZEV fleetwide percentage for light-duty vehicles in the County; under Alternative 3, this performance objective ~~could~~ would likely be reduced to a 10 percent ZEV market share (or lower)

Page 4-18 Section 4.4.4 has been revised and modified as follows:

For example, many of the Draft EIR’s potential significant and unavoidable impacts arise from the construction and operation of utility-scale solar projects

that may be facilitated by Measure ES2, *Procure Zero Carbon Electricity*.⁵ However, reducing the performance objectives of Measure ES2 toward reducing indirect impacts of utility-scale solar projects facilitated by the Draft 2045 CAP would, for purposes of the analysis, conflict with General Plan Policy AQ 3.9 to “Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.” Inconsistency with General Plan Policy AQ 3.9 would mean that Alternative 3 would not meet Objective 1 of the Project. Measure ES2 is one of the five core measures necessary to meet the Project’s targets for 2030 and 2035. Reducing Measure ES2’s performance objectives would inhibit the County’s ability to exceed the 2030 target by more than 160,000 MTCO₂e and the 2035 target by more than 230,000 MTCO₂e, which would occur under implementation of the Project. Thus, the County would need to reduce Alternative 3 performance goals for other measures and actions for the alternative to be consistent with most of the basic Project objectives.

While Alternative 3’s reduced performance objectives would facilitate fewer projects in the short-term for years 2030 through 2035 compared to the Project, it would likely facilitate the same number of projects through 2045, resulting in the same environmental impacts through 2045 compared to the Project. However, implementation of Alternative 3 would more likely facilitate a greater number of projects in the 2035 to 2045 period than the Project. Consequently, Alternative 3 would delay the realization of its environmental impacts but would not lessen or eliminate these adverse environmental impacts entirely and would likely worsen environmental impacts during the 2035 to 2045 timeframe compared to the Project.

Alternative 3 would result in similar but lesser impacts than the Project on the following resource areas: aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, transportation, and wildfire. However, Alternative 3 would result in greater impacts than the Project for energy, GHG emissions, air quality, and utilities and service systems. Alternative 3 would result in greater energy impacts than the Project because Alternative 3 would facilitate fewer projects that would reduce Countywide energy use compared to the Project, resulting in greater energy consumption than the Project. Alternative 3 would result in greater GHG emissions impacts than the Project because Alternative 3 would not reduce Countywide GHG emissions as compared to the Project through 2030 and 2035, producing much greater GHG emissions than the Project. Additionally, implementation of Alternative 3 would result in greater air quality impacts than the Project for operational impacts because Alternative 3 would facilitate fewer projects through 2030 and 2035, resulting in much greater emissions of criteria pollutants and TACs throughout

⁵ Even though the construction of new utility-scale solar projects would not be required to achieve Project targets as proposed, this EIR conservatively assumes that new utility-scale solar projects nonetheless would be facilitated by the 2045 CAP.

the county for these years, resulting in greater human health risks as compared to the Project. Finally, Alternative 3 would result in greater utilities and service systems because projects facilitated by Alternative 3 would lead to increased use of recycled and gray water systems compared to the Project, increasing the amount of wastewater requiring treatment by wastewater treatment providers, and thus, would require the development of new water recycling and direct potable reuse facilities.

Additionally, the 2030 target of 40 percent below 1990 levels is ~~quite~~ far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which ~~may~~ likely means that Alternative 3 does not align with either County or state emission reduction goals (Recirculated Draft PEIR, pp. 4.18 to 4.19). ~~This is because~~ Specifically, CARB projects that a 48 percent reduction in 1990 emissions levels by 2030 is needed: “The Scoping Plan Scenario achieves the AB 1279 target of 85 percent below 1990 levels by 2045 and identifies a need to accelerate the 2030 target to 48 percent below 1990 levels” (CARB 2022b). This is far beyond the 40 percent reduction required by SB 32. The Project’s 2030 target of 40 percent below 2005 levels is equivalent to 48 percent below 1990 levels, which aligns the Project much more closely with state goals and the 2022 Scoping Plan, which ~~than~~ Alternative 3 would not do. Additionally, Alternative 3 does not align with the statewide targets codified in AB 1279, which establishes the state policy to achieve net zero GHG emissions as soon as possible but no later than 2045 and to achieve and maintain net negative GHG emissions thereafter. AB 1279 also mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels.

Alternative 3 may also not meet Project Objective 5 (demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects via the Checklist) because Alternative 3’s lower targets may not meet CEQA standards for a level of GHG emissions that would not be cumulatively considerable for future environmental review of projects, given that Alternative 3’s targets do not align with state goals and consistency with state goals is the criteria for whether the targets represent a level of GHG emissions that would have a less than cumulatively considerable GHG impact for future environmental review projects.

Pages 4-20 to 4-21 Section 4.6 has been revised and modified as follows:

~~The CEQA Guidelines define the *environmentally superior alternative* as that alternative with the least adverse impacts on the project area and its surrounding environment. For this Project, the No Project Alternative is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project even though air quality and GHG emissions would be~~

~~the worst among all alternatives under the No Project Alternative. However, the No Project Alternative would fail to meet the basic objectives of the Project. Additionally, selection of the No Project Alternative would result in realization of none of the benefits identified in the Draft 2045 CAP. Because the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. (CEQA Guidelines Section 15126.6(e)(2).)~~

An EIR’s discussion of alternatives to the proposed project must include a “no project alternative” to allow a comparison of the environmental impacts of approving the proposed project with the effects of not approving it. (CEQA Guidelines, § 15126.6(e)(1).) CEQA requires an EIR to identify the “environmentally superior alternative” if the no project alternative is environmentally superior. (CEQA Guidelines, § 15126.6 (e)(2).).

The EIR No Project Alternative evaluates the scenario where the County would not approve the Revised Draft 2045 CAP for implementation such that no GHG emissions reduction strategies, measures, or actions identified by the Revised Draft 2045 CAP would be implemented. This would avoid adverse impacts caused by projects facilitated by the Revised Draft 2045 CAP, as compared to impacts under the Revised Draft 2045 CAP. Because the No Project Alternative would not facilitate projects, there would be no project-related impacts when compared to implementation of the Revised Draft 2045 CAP (see Table 4-6, which provides a comparative summary), and thus, the No Project Alternative is identified as the environmentally superior alternative.

However, in the long-term, the No Project Alternative would result in substantially fewer environmental benefits to the County overall for several reasons. First, air pollutant (criteria pollutants and toxic air contaminants) and GHG emissions would be much higher under the No Project Alternative than air pollutant and GHG emissions under with all other alternatives and the Project. This is because the Project would substantially reduce countywide GHG emissions, and many of these emission reductions would produce parallel reductions in criteria pollutants and toxic air contaminants primarily by reducing fuel combustion. The No Project Alternative would result in greater human health risks associated with exposure to toxic air contaminants than all other alternatives and the Project, because all other alternatives and the Project would substantially reduce TAC emissions in the County. The No Project Alternative would neither realize the long-term GHG emission reduction benefits associated with implementation of the Revised Draft 2045 CAP (and all the co-benefits that would also occur, such as reduced criteria pollutant and TAC emissions), nor provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet and exceed the 2045 direct emission reduction target and carbon neutrality goal established by AB 1279. Lastly, the No Project Alternative would not meet any of the Project objectives

and the County is not obligated to select the environmentally superior alternative for implementation if it would not accomplish the basic project objectives. (See CEQA Guidelines, § 15126.6(a), (c), (f).)

CEQA Guidelines Section 15126.6(e)(2) states, “[i]f the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

For purposes of this EIR, Of Alternatives 1-3, Alternative 3 would reduce adverse environmental impacts compared to the Project to the greatest extent in the short-term because it would result in fewer facilitated projects compared with the Revised Draft 2045 CAP. Alternative 3 is considered the environmentally superior alternative for CEQA purposes because it would result in similar but lesser impacts on 11 resource areas relative to the following resource areas: Project (i.e., for aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, transportation, utilities and service systems, and wildfire.) and However, Alternative 3 would result in greater impacts than the Project in two resource areas (i.e., for energy, and GHG emissions, air quality, and utilities and service systems). Alternative 3 would have same impacts as the Project with respect to the remaining resources. See Table 4-6 for details.

However, it should be noted that Alternative 3 would likely only delay these impacts as compared to the Project versus rather than lessening these impacts or eliminate ~~ing~~ these ~~m~~ impacts entirely. This is because Alternative 3 has lower GHG emissions reduction targets only for the years 2030 and 2035 compared to the Project; (it has the same targets for the year 2045). This means that Alternative 3 would likely facilitate fewer projects through 2030 and 2035 to achieve the lower lesser targets, resulting in reduced adverse environmental impacts for these years. But However, Alternative 3 would likely facilitate the same number of projects through 2045, resulting in the same environmental impacts through 2045 compared to the Project, and it would likely facilitate more projects in the 2035 to 2045 period than the Project, worsening environmental impacts during the 2035 to 2045 timeframe compared to the Project. Consequently, Alternative 3 would delay the realization of its environmental potential impacts but would not completely lessen or eliminate or permanently lessen these adverse environmental impacts entirely, and could increase or create certain environmental impacts compared to the Project.

Additionally, It should be noted that Alternative 3 ~~has~~ does have some drawbacks compared to the Project. As discussed previously in the description of Alternative 3 (Section 4.4.4), its ability to ~~it would not meet~~ Project Objectives 1, 2, and 5 would be limited compared to the Project. Alternative 3 would not meet Project Objective 1 (identify detailed programs, actions, and performance goals to

achieve the climate policies of the General Plan) because implementation would result in an inconsistency with the County’s General Plan Policy AQ 3.9 (“Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.”). Additionally, the 2030 target of 40 percent below 1990 levels is quite far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which may likely means that Alternative 3 does not align with either County or state emissions reduction goals.

Alternative 3 does not align with County or state goals, including AB 1279, which establishes the state policy to achieve net zero GHG emissions as soon as possible but no later than 2045 and to achieve and maintain net negative GHG emissions thereafter. AB 1279 also mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels. Finally implementation of Alternative 3 may would likely exclude several recommended priority local GHG emissions reduction strategies recommended by the 2022 Scoping Plan to ensure alignment with State climate goals.

Alternative 3 would also not meet Project Objective 5 (demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects via the Checklist) because Alternative 3’s lower targets would not meet CEQA standards for a level of GHG emissions that would not be cumulatively considerable for future environmental review of projects, given that Alternative 3’s targets do not align with state goals and consistency with state goals is the criteria for whether the targets represent a level of GHG emissions that would have a less than cumulatively considerable GHG impact for future environmental review projects. Nevertheless, in balancing both Alternative 3’s reduction in adverse environmental impacts and long-term beneficial effects compared to the Project, the County has determined that Alternative 3 is the environmentally superior alternative.

3.2.6 Chapter 5, Other CEQA Considerations

No text changes have been made to Chapter 5, *Other CEQA Considerations*.

3.2.7 Chapter 6, Report Preparation

No text changes have been made to Chapter 6, *Report Preparation*.

Appendix A

Public Notices



NOTICE OF AVAILABILITY

RECIRCULATED DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN

PROJECT TITLE: Los Angeles County 2045 Climate Action Plan

PROJECT LOCATION: Unincorporated areas of Los Angeles County

The Los Angeles County Department of Regional Planning (County), acting as the lead agency pursuant to the California Environmental Quality Act (CEQA), completed a Draft Program Environmental Impact Report (PEIR) for the Los Angeles County 2045 Climate Action Plan (2045 CAP) in May 2022. After the July 2022 conclusion of the comment period for the Draft PEIR, the County elected to revise the Draft 2045 CAP in response to public and other input received, and to transition the 2045 CAP's aspirational goal of carbon neutrality by 2045 into a target consistent with new legislation, Assembly Bill (AB) 1279, which was enacted in September 2022 after the close of the Draft PEIR comment period. The County prepared a Recirculated Draft PEIR, which analyzes changes in the project made after the issuance of the Draft PEIR and which wholly replaces the Draft PEIR that was issued in May 2022.

The County has prepared this Notice of Availability (NOA) to consult with and request comments from responsible agencies, trustee agencies, and other interested parties regarding the environmental analyses presented in the Recirculated Draft PEIR.

PROJECT LOCATION

Unincorporated areas of Los Angeles County.

PROJECT SUMMARY

The Draft 2045 CAP (Project) is the County's plan towards meeting greenhouse gas (GHG) emissions reduction targets for unincorporated Los Angeles County by the years of 2030, 2035, and 2045. It was developed with the goals of implementing the GHG emissions reduction policies of the General Plan Air Quality Element and ensuring that the County contributes its fair share to statewide GHG emissions reductions.

With these goals in mind, the objectives of the Draft 2045 CAP are as follows:

- (1) Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
- (2) Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
- (3) Provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets.

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- (4) Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
- (5) Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a “qualified CAP”) via the 2045 CAP Consistency Review Checklist.

The Draft 2045 CAP includes the following:

- A greenhouse gas (GHG) emissions inventory for 2018.
- Emissions forecasts for 2030, 2035, and 2045.
- GHG emissions targets for 2030, 2035, and 2045.
- A long-term aspirational goal for carbon neutrality by 2045.
- A suite of GHG emissions reduction strategies, measures, and actions to reduce GHG emissions from major sectors.
- A technical modeling appendix to explain the Draft 2045 CAP’s GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- Implementation and monitoring measures to ensure successful climate action.
- A new development review consistency checklist to allow future projects to streamline GHG emissions analyses pursuant to the California Environmental Quality Act (CEQA) as anticipated by CEQA Guidelines Section 15183.5 by using the 2045 CAP.

Approval of the Draft 2045 CAP would require an amendment to the General Plan to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP)*, an implementing component of the General Plan’s Air Quality Element.

LIST OF SIGNIFICANT ENVIRONMENTAL EFFECTS ANTICIPATED AS A RESULT OF THE PROJECT

No changes to General Plan land use designations, zoning, or specific development projects are proposed as part of the Draft 2045 CAP. However, projects facilitated by Draft 2045 CAP measures and actions would have the following significant impacts:

- **Aesthetics:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions would: have a substantial adverse effect on a scenic vista; be visible from or obstruct views from a regional riding, hiking, or multiuse trail; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality; and create a new source of substantial shadows, light, or glare, which would adversely affect day or nighttime views in the area. The Project would also cause significant cumulative impacts to aesthetics resources.

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- **Agriculture and Forestry:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract; and involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use. The Project would also cause significant cumulative impacts to agriculture and forestry resources.
- **Air Quality:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: conflict with or obstruct implementation of the applicable air quality plan; result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and TAC emissions; and contribute to a significant cumulative impact to air quality associated with toxic air contaminant emissions.
- **Biological Resources:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS; have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means; and interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; and convert oak woodlands or other unique native woodlands. The Project would also cause significant cumulative impacts to biological resources.
- **Cultural Resources:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5; cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and disturb any human remains, including those interred outside of dedicated cemeteries. The Project would also cause significant cumulative impacts to cultural resources.
- **Hazards and Hazardous Materials:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of sensitive land uses; and impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. The Project would also cause significant cumulative impacts to hazards and hazardous materials resources.
- **Hydrology and Water Quality:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project

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inundation. The Project would also cause significant cumulative impacts to hydrology and water quality resources.

- **Noise:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; and generate excessive groundborne vibration or groundborne noise levels. The Project would also cause significant cumulative impacts on noise.
- **Transportation:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: conflict with an applicable program plan, ordinance or policy addressing the circulation system; and substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The Project would also cause significant cumulative impacts to transportation resources.
- **Tribal Cultural Resources:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: cause a substantial adverse change in the significance of a tribal cultural resource, or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). The Project would also cause significant cumulative impacts to tribal cultural resources.
- **Utilities and Service Systems:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects; and result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. The Project would also cause significant cumulative impacts to utilities and service systems.
- **Wildfire:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: substantially impair an adopted emergency response plan or emergency evacuation plan; require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The Project would also cause significant cumulative wildfire impacts.

HAZARDOUS MATERIALS RELEASE SITES

Various sites in unincorporated Los Angeles County are identified on lists enumerated under Section 65962.5 of the Government Code, including known contamination sites identified in the EnviroStor database that need further investigation (i.e., 149 school investigation and school cleanup sites, 165 state response sites, 18 federal Superfund sites, and 370 voluntary cleanup sites) and hazardous materials sites identified in the GeoTracker database as having the potential to affect groundwater quality (i.e., 7,528 leaking underground storage tank sites).

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PUBLIC REVIEW PERIOD

In accordance with Section 15105 of the State CEQA Guidelines, the County has scheduled a 45-day public review period for the Recirculated Draft PEIR. **The formal public review will start on March 30, 2023, and end on May 15, 2023.**

PUBLIC COMMENTS

The Recirculated Draft PEIR wholly replaces the Draft PEIR that was issued in May 2022. **Public comments on the May 2022 Draft PEIR will not be responded to in the Final PEIR. New public comments are requested on the Recirculated Draft PEIR, and only these will be responded to in the Final PEIR.** Please submit written comments on the Recirculated Draft PEIR no later than 5:00 p.m. on May 15, 2023.

Please send by mail to the following address:

Los Angeles County Department of Regional Planning
Attn: Thuy Hua
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

For email submittal of your comment letter, send to: climate@planning.lacounty.gov

All written comment letters/emails regarding the Recirculated Draft PEIR will be included in an appendix in the Final EIR and responded to in the Response to Comments section of the final document.

AVAILABILITY OF MATERIALS

A digital copy of the Recirculated Draft PEIR is available on the project website at <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>. A printed copy of the Recirculated Draft PEIR is available for public review by appointment during normal business hours at the Los Angeles County Department of Regional Planning's headquarter office (320 W. Temple Street, Los Angeles, CA 90012) starting March 30, 2023.

To ensure additional public access to the Recirculated Draft PEIR, printed copies of the document (with electronic copies of all appendices) are available for review during normal hours starting March 30, 2023 at the following County libraries:

NOTICE OF AVAILABILITY

March 2023

Page 6

- AC Bilbrew Library
150 E El Segundo Blvd
Los Angeles, CA 90061
- Acton Agua Dulce Library
33792 Crown Valley Rd
Acton, CA 93510
- Charter Oak Library
20540 E Arrow Highway Suite K
Covina, CA 91724
- East Los Angeles Library
4837 E 3rd St
Los Angeles, CA 90022
- Hacienda Heights Library
16010 La Monde St
Hacienda Heights, CA 91745
- La Crescenta Library
2809 Foothill Blvd
La Crescenta, CA 91214
- Stevenson Ranch Library
25950 The Old Road
Stevenson Ranch, CA 91381
- Topanga Library
122 N Topanga Canyon Blvd
Topanga, CA 90290

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2021120568

Project Title: 2045 Los Angeles County Climate Action Plan

Lead Agency: Los Angeles County Department of Regional Planning Contact Person: Thuy Hua
 Mailing Address: 320 W. Temple Street 13th Floor Phone: 213-974-6461
 City: Los Angeles Zip: 90012 County: Los Angeles

Project Location: County: Los Angeles City/Nearest Community: Unincorporated Countywide
 Cross Streets: N/A Zip Code: N/A

Longitude/Latitude (degrees, minutes and seconds): N/A ° N/A ' N/A " N / N/A ° N/A ' N/A " W Total Acres: N/A

Assessor's Parcel No.: N/A Section: N/A Twp.: N/A Range: N/A Base: N/A

Within 2 Miles: State Hwy #: N/A Waterways: N/A

Airports: N/A Railways: N/A Schools: N/A

Document Type:

CEQA: NOP Draft EIR NEPA: NOI Other: Joint Document
 Early Cons Supplement/Subsequent EIR EA Final Document
 Neg Dec (Prior SCH No.) _____ Draft EIS Other: _____
 Mit Neg Dec Other: Recirculated Draft EIR FONSI _____

Local Action Type:

General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, etc.) Other: _____

Development Type:

Residential: Units _____ Acres _____ Transportation: Type _____
 Office: Sq.ft. _____ Acres _____ Employees _____ Mining: Mineral _____
 Commercial: Sq.ft. _____ Acres _____ Employees _____ Power: Type _____ MW _____
 Industrial: Sq.ft. _____ Acres _____ Employees _____ Waste Treatment: Type _____ MGD _____
 Educational: _____ Hazardous Waste: Type _____
 Recreational: _____ Other: _____
 Water Facilities: Type _____ MGD _____

Project Issues Discussed in Document:

Aesthetic/Visual Fiscal Recreation/Parks Vegetation
 Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
 Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Archeological/Historical Geologic/Seismic Sewer Capacity Wetland/Riparian
 Biological Resources Minerals Soil Erosion/Compaction/Grading Growth Inducement
 Coastal Zone Noise Solid Waste Land Use
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Cumulative Effects
 Economic/Jobs Public Services/Facilities Traffic/Circulation Other: Energy, GHG, Tribal

Present Land Use/Zoning/General Plan Designation:

Throughout unincorporated Los Angeles County

Project Description: (please use a separate page if necessary)

See attachment

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

| | |
|--|--|
| <input checked="" type="checkbox"/> Air Resources Board | <input type="checkbox"/> Office of Historic Preservation |
| <input type="checkbox"/> Boating & Waterways, Department of | <input type="checkbox"/> Office of Public School Construction |
| <input type="checkbox"/> California Emergency Management Agency | <input type="checkbox"/> Parks & Recreation, Department of |
| <input type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input type="checkbox"/> Caltrans District # <u>7</u> | <input type="checkbox"/> Public Utilities Commission |
| <input type="checkbox"/> Caltrans Division of Aeronautics | <input type="checkbox"/> Regional WQCB # <u>4, 6</u> |
| <input type="checkbox"/> Caltrans Planning | <input checked="" type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input type="checkbox"/> Resources Recycling and Recovery, Department of |
| <input type="checkbox"/> Coachella Valley Mtns. Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Comm. |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input checked="" type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mtns. Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input type="checkbox"/> SWRCB: Water Quality |
| <input type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region # <u>5</u> | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input type="checkbox"/> Food & Agriculture, Department of | <input type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> Forestry and Fire Protection, Department of | <input type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> General Services, Department of | <input type="checkbox"/> Other: <u>SCAG</u> |
| <input type="checkbox"/> Health Services, Department of | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Housing & Community Development | |
| <input type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date March 30, 2023 Ending Date May 15, 2023

Lead Agency (Complete if applicable):

| | |
|--|-----------------------|
| Consulting Firm: <u>Environmental Science Associates</u> | Applicant: _____ |
| Address: <u>626 Wilshire Boulevard Suite 1100</u> | Address: _____ |
| City/State/Zip: <u>Los Angeles, CA 90017</u> | City/State/Zip: _____ |
| Contact: <u>Meryka Dirks</u> | Phone: _____ |
| Phone: <u>(408) 660-4003</u> | |

Signature of Lead Agency Representative: _____   Digitally signed by Thuy Hua
Date: 2023.03.23 16:39:33 -0700 _____ Date: March 23, 2023

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

PROJECT DESCRIPTION

The Draft 2045 Los Angeles County Climate Action Plan (2045 CAP or Project) is the County's plan towards meeting greenhouse gas (GHG) emissions reduction targets for unincorporated Los Angeles County by the years of 2030, 2035, and 2045. It was developed with the goals of implementing the GHG emissions reduction policies of the General Plan Air Quality Element and ensuring that the County contributes its fair share to statewide GHG emissions reductions.

With these goals in mind, the objectives of the Draft 2045 CAP are as follows:

- (1) Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
- (2) Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
- (3) Provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets.
- (4) Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
- (5) Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a "qualified CAP") via the 2045 CAP Consistency Review Checklist.

The Draft 2045 CAP includes the following:

- A greenhouse gas (GHG) emissions inventory for 2018.
- Emissions forecasts for 2030, 2035, and 2045.
- GHG emissions targets for 2030, 2035, and 2045.
- A long-term aspirational goal for carbon neutrality by 2045.
- A suite of GHG emissions reduction strategies, measures, and actions to reduce GHG emissions from major sectors.
- A technical modeling appendix to explain the Draft 2045 CAP's GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- Implementation and monitoring measures to ensure successful climate action.
- A new development review consistency checklist to allow future projects to streamline GHG emissions analyses pursuant to the California Environmental Quality Act (CEQA) as anticipated by CEQA Guidelines Section 15183.5 by using the 2045 CAP.

Approval of the Draft 2045 CAP would require an amendment to the General Plan to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), an implementing component of the General Plan's Air Quality Element.

LIST OF SIGNIFICANT ENVIRONMENTAL EFFECTS ANTICIPATED AS A RESULT OF THE PROJECT

No changes to General Plan land use designations, zoning, or specific development projects are proposed as part of the Draft 2045 CAP. However, projects facilitated by Draft 2045 CAP measures and actions would have the following significant impacts:

- **Aesthetics:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions would: have a substantial adverse effect on a scenic vista; be visible from or obstruct views from a regional riding, hiking, or multiuse trail; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality; and create a new source of substantial shadows, light, or glare, which would adversely affect day or nighttime views in the area. The Project would also cause significant cumulative impacts to aesthetics resources.
- **Agriculture and Forestry:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use; conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract; and involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use. The Project would also cause significant cumulative impacts to agriculture and forestry resources.
- **Air Quality:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: conflict with or obstruct implementation of the applicable air quality plan; result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and TAC emissions; and contribute to a significant cumulative impact to air quality associated with toxic air contaminant emissions.
- **Biological Resources:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS; have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means; and interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; and convert oak woodlands or other unique native woodlands. The Project would also cause significant cumulative impacts to biological resources.
- **Cultural Resources:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5; cause a substantial

adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and disturb any human remains, including those interred outside of dedicated cemeteries. The Project would also cause significant cumulative impacts to cultural resources.

- **Hazards and Hazardous Materials:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of sensitive land uses; and impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. The Project would also cause significant cumulative impacts to hazards and hazardous materials resources.
- **Hydrology and Water Quality:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation. The Project would also cause significant cumulative impacts to hydrology and water quality resources.
- **Noise:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; and generate excessive groundborne vibration or groundborne noise levels. The Project would also cause significant cumulative impacts on noise.
- **Transportation:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: conflict with an applicable program plan, ordinance or policy addressing the circulation system; and substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The Project would also cause significant cumulative impacts to transportation resources.
- **Tribal Cultural Resources:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: cause a substantial adverse change in the significance of a tribal cultural resource, or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). The Project would also cause significant cumulative impacts to tribal cultural resources.
- **Utilities and Service Systems:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects; and result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. The Project would also cause significant cumulative impacts to utilities and service systems.
- **Wildfire:** The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: substantially impair an adopted emergency response plan or emergency evacuation plan; require the installation or maintenance of associated infrastructure (such as

roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The Project would also cause significant cumulative wildfire impacts.

Appendix B
**Appendix F of the Revised
Draft 2045 CAP**

APPENDIX F

2045 Climate Action Plan CEQA Streamlining Checklist

Purpose

The ~~2045 Los Angeles County Climate Action Plan (2045 CAP)~~ helps the County of Los Angeles (County) comply with various local, regional, state, and federal regulations to significantly reduce greenhouse gas (GHG) emissions. The County is obligated under the California Environmental Quality Act (CEQA), Assembly Bill (AB) 32 (the California Global Warming Solutions Act of 2006), Senate Bill (SB) 375 (the Sustainable Communities and Climate Protection Act of 2008), and various California executive orders to do its part to reduce GHG emissions in the state. Generally, statewide targets aim to reduce emissions to 1990 levels by 2020 (AB 32), to 40 percent below 1990 levels by 2030 (SB 32), and to 85 percent (anthropogenic) below 1990 levels by 2045 (AB 1279). CEQA Guidelines Section 15183.5 allows public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs. The ~~2045 CAP itself, the 2045 CAP CEQA Streamlining Checklist (this document), and the certified Final Program Environmental Impact Report (PEIR) (State Clearinghouse #2021120568) for the 2045 CAP together meet all requirements of Section 15183.5(b) of the CEQA Guidelines. Accordingly, the 2045 CAP represents the County's qualified climate action plan (CAP) in compliance with CEQA.~~

The ~~2045 CAP~~ includes 10 strategies, 25 measures, and 95 actions that shall be implemented by the County to achieve its proportional share of state GHG emissions reductions for the target year 2030. These strategies, measures, and actions are organized into four sectors: (1) transportation; (2) stationary energy; (3) waste (including wastewater); and (4) agriculture, forestry, and other land use (AFOLU). The ~~2045 CAP~~ does not include any strategies, measures, or actions to reduce emissions from the fifth sector of the County's GHG inventory, industrial processes and product use (IPPU), given data and modeling limitations for this sector.

The 2045 Climate Action Plan CEQA Streamlining Checklist (referred to herein as the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist) can be used applies to **discretionary projects that are subject to and not exempt from CEQA, including both new projects and expansion of existing land uses, and including agency and public projects, that intend to streamline the environmental review of their GHG impacts pursuant to CEQA** (referred to herein as *projects*). The purpose of the ~~2045 CAP Checklist~~ is to:

- (1) — Implement relevant GHG emissions reduction actions from the ~~2045 CAP~~ for projects.
- (2) Provide a voluntary streamlined review process for analyzing the impacts of GHG emissions resulting from proposed discretionary projects that are subject to CEQA.

The ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist may be updated administratively to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or local, state, or federal law ~~without the need for an amendment to the Los Angeles County General Plan 2035 (General Plan).~~

Appendix F Organization

This appendix is organized into the following four sections:

Section F.1: ~~CEQA Compliance and Background Information~~

This section describes the rationale for the checklist and explains how it provides the mechanism for projects that wish to streamline environmental review of their GHG impacts using the 2045 CAP's PEIR pursuant to CEQA Guidelines Section 15183.5(b).

Section F.2: Checklist Instructions

This section includes the submittal requirements for applicants, the applicability of the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist, and instructions for completing the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist.

Section F.3: ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist

This section includes the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist itself along with a table for reporting and documenting alternative project emissions reduction measures and additional GHG reductions.

Section F.4: Offsite GHG Reduction Program Framework

This section includes a framework for the County's forthcoming Offsite GHG Reduction Program. This program will be available for project applicants to use as an alternative GHG reduction measure to the CEQA streamlining requirements, by allowing applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County.

F.1 ~~CEQA Compliance and Background Information~~

~~The 2045 CAP's GHG reductions will occur through a combination of County initiatives, as represented by various plans and policies that will provide reductions from both new developments and the expansion of existing developments. The 2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist ~~specifically applies to proposed discretionary projects that require environmental review pursuant to CEQA and intend to streamline the environmental review of their GHG impacts. Therefore, the 2045 CAP Checklist is a critical implementation tool in the County's overall strategy to reduce GHG emissions. Implementing applicable 2045 CAP measures and actions in new developments and expanding existing development projects will help the County achieve incremental reductions toward its 2030, 2035, and 2045 targets.~~

The growth projections outlined in the General Plan's Land Use and Housing Elements were used in the 2045 CAP to estimate unincorporated Los Angeles County's future emissions. Therefore, projects can use the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist if they are consistent with the Land Use Element. This consistency allows a project to streamline its analysis of GHG impacts by using the existing programmatic environmental review contained in the certified Final PEIR for the 2045 CAP. In doing so, pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to climate change resulting from the project's GHG emissions may be determined not to be cumulatively considerable. This approach is consistent with the recommendations of the California Air Resources Board (CARB) in the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) that "CEQA-qualified CAPs" can allow eligible projects to streamline their determination of significance for GHG emissions.¹ It is also consistent with the Association of Environmental Professionals Climate Change Committee's best practices for tiering from qualified GHG reduction plans that demonstrate substantial progress toward meeting the next milestone

¹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

statewide planning reduction target (i.e., a 40 percent reduction below 1990 levels by 2030 as set forth by SB 32).²

This ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist provides a mechanism for projects to specifically identify “those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project” per Section 15183.5(b)(2) of the CEQA Guidelines.

GHG emissions associated with the construction of projects, including demolition and decommissioning activities, are generally orders of magnitude lower than operational GHG emissions. This is primarily because construction emissions are typically short in duration compared to the project’s overall lifetime. Typically, construction GHG emissions are amortized over 30 years and added to a project’s 30-year lifetime emissions total; after this amortization, construction GHG emissions usually represent a small fraction of a project’s total annual emissions. It is generally difficult to enforce low-emission construction equipment because of the limited availability of zero-emission and near-zero-emission construction equipment, along with contracting requirements. In addition, the 2045 CAP quantifies GHG emissions from off-road construction activity at the unincorporated Los Angeles County level; these emissions are accounted for in the 2045 CAP’s ability to achieve the 2030, 2035, and 2045 targets.

The ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist also requires the use of electric and zero-emission construction equipment during project construction to the maximum extent feasible, to align with Measure T9. Therefore, construction emissions can be assessed qualitatively as part of related CEQA GHG emissions analysis. However, some projects may have long construction periods or entail substantial excavation and grading that could result in construction-related GHG emissions that may be considered significant. Thus, the County retains the discretion on a project-by-project basis to consider whether a project’s construction-related GHG emissions could be cumulatively considerable and require a more detailed quantitative CEQA analysis and mitigation of GHG emissions.

Projects that elect not to use the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist for CEQA streamlining must prepare a comprehensive project-specific analysis of GHG emissions. The analysis must quantify existing and projected GHG emissions and it is strongly encouraged that the project incorporate all the ~~CEQA~~ streamlining requirements in this ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist, although this is not required. The ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist may be updated to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or to local, state, or federal law.

2045 CAP Appendix B, *Emissions Forecasting and Reduction Methods*, provides the quantitative basis for CEQA streamlining requirements. This document demonstrates how, based on substantial

² Association of Environmental Professionals. 2016. *Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. October 18, 2016. Available: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf.

evidence,³ implementing these CEQA streamlining requirements on a project-by-project basis will collectively achieve the 2045 CAP's target emissions level for projects by 2030 and 2035, as required by CEQA Guidelines Section 15183.5(b)(1)(D).

Alignment with the 2022 Scoping Plan

Appendix D of CARB's 2022 Scoping Plan provides guidance for local governments and lead agencies for how local climate action planning can support the State of California's climate goals.⁴ CARB reiterates that a CAP that has been adopted through the CEQA review process and meets the criteria specified in CEQA Guidelines Section 15183.5(b) for a "plan for the reduction of greenhouse gas emissions"—such as the 2045 CAP—is a "CEQA-qualified CAP" that can allow eligible projects to streamline their determination of significance for GHG emissions.

Streamlining CEQA GHG analysis for future projects by demonstrating consistency with a CAP involves evaluating whether a project demonstrates consistency with "all applicable GHG reduction measures identified in the CAP." CARB notes that such consistency can be determined by using CAP compliance checklists, which can be "included as part of the proposed project's CEQA analysis documenting the project's consistency with the CEQA-qualified CAP."

The ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist is therefore consistent with CARB's guidance in the 2022 Scoping Plan as a valid way for discretionary projects to streamline their analysis of GHG impacts.

Recommended Project Attributes for Residential and Mixed-Use Projects

Appendix D of the 2022 Scoping Plan includes a list of "key project attributes" for residential and mixed-use projects. CARB states that if a project incorporates these attributes, the project would "accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals" and would be "**clearly** consistent with the State's climate goals." Further, such projects would be "consistent with the Scoping Plan or other plans, policies, or regulations adopted for the purposes of reducing GHGs" and that therefore, "the GHG emissions associated with such projects may result in a less-than-significant GHG impact under CEQA."

Alternative Project Emissions Reduction Measures and Offsite GHG Reduction Programs

As discussed below under *Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions*, project applicants may employ alternative GHG emissions reduction measures to serve as replacements for any CEQA streamlining requirement not feasible to implement at the project-level. Such replacement measures must meet specific criteria and be

³ CEQA Guidelines Section 15384 defines *substantial evidence* as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

⁴ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

supported by substantial evidence that the measure would achieve the same or greater level of GHG emissions reductions as the ~~2045 CAP~~ CEQA streamlining requirement that it replaces.

CARB supports the idea of “off-site GHG mitigation” in Appendix D of the 2022 Scoping Plan for projects that have maxed out their on-site GHG reduction actions: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement **local**, off-site direct GHG reduction strategies.”⁵

As discussed further below, Action ES5.4 of the 2045 CAP would establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment.

CARB cautions that such off-site measures must directly “offset” a project’s GHG emissions and must not be unrelated off-site measures that would occur independently of the proposed project. Lead agencies and project applicants must provide substantial evidence that a specific off-site mitigation measure is not otherwise required by law or regulation and would not have occurred “**but for** the requirement to mitigate a project’s GHG impacts.” CARB goes on to state the following:

There has been concern that GHG emission reductions from off-site GHG mitigation measures... may double count GHG emission reductions from California’s Cap-and-Trade program. However, off-site mitigation measures, such as EV [electric vehicle] charging or building efficiency retrofits, are viable options for mitigation under CEQA and would not be double counted, provided they are not otherwise required by law or regulation and would not have happened but for the mitigation requirements of the project. If the mitigation would have been implemented or required through another statute, regulation, existing local program, or requirement other than the project it is mitigating, then the project being mitigated may not also claim credit for the reductions.

F.2 Checklist Instructions

~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist Submittal Requirements

The ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist shall accompany the project application for all projects and plans proposed within unincorporated Los Angeles County’s land use authority that are subject to CEQA, ~~whether supported by private or government (local or state) funding.~~ The ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist is designed to assist the project applicant in identifying the GHG emissions reduction actions and other applicable sustainability-focused requirements specific to a proposed project-. However, it may be necessary to supplement the completed ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist with supporting materials, calculations, or certifications to demonstrate compliance with all the applicable CEQA streamlining ~~requirements~~ provisions ~~requirements~~ in the 2045 CAP

⁵ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

~~Checklist~~ 2045 CAP CEQA Streamlining Checklist. The ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist shall be included in the respective project conditions of approval.

~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist Applicability

The ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist allows for streamlined project-specific CEQA GHG analysis. The ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist is only required if a project applicant wants to use CEQA streamlining for GHG impacts; it is not required if a project-level environmental analysis of GHG impacts is conducted. As such, the ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist is voluntary. The ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist cannot be used for projects requiring a General Plan amendment associated with land use density increases. Ministerial projects and projects that otherwise are exempt from CEQA are deemed to be consistent with the 2045 CAP, and no further review is necessary, with the exception of the residential infill categorical exemption (CEQA Guidelines Section 15195), for which projects are required to demonstrate consistency with the 2045 CAP through the ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist if the applicant elects to use CEQA streamlining for GHG impacts. All projects using the ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist for CEQA streamlining must demonstrate consistency with the General Plan growth projections. **If a project is not consistent with the General Plan growth projections, then the ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining.**

~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist Instructions

Project applicants shall complete the following **four steps** to demonstrate ~~compliance~~ compliance with the 2045 CAP for a proposed project.

Step 1. Demonstrate consistency with the General Plan ~~g~~ Growth p ~~Projections~~ (Table F-1).

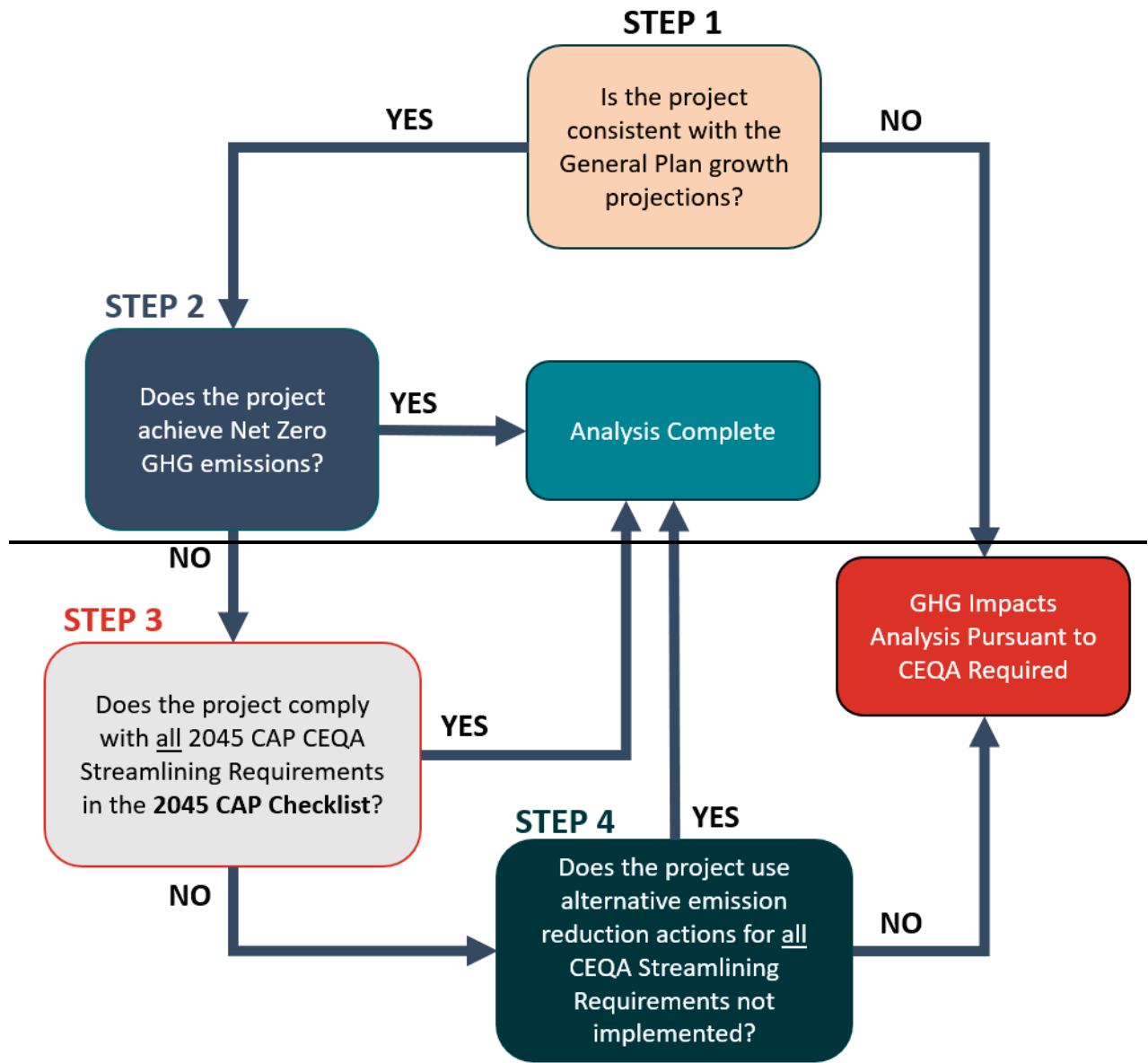
Step 2. Determine whether the project screens out of certain CEQA streamlining requirements (Table F-1).

Step 3. ~~Demonstrate compliance with~~ Complete the 2045 CAP CEQA streamlining ~~requirements~~ Streamlining Checklist (Table F-1).

Step 4. Identify alternative project emissions reduction measures and additional GHG reductions (Table F-2), as needed.

All projects must complete **Step 1: Demonstrate Consistency with the General Plan Growth Projections** and **Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements**. Projects that do not meet the screening criteria must complete **Step 3: ~~Demonstrate Compliance with~~ Complete the 2045 CAP CEQA Streamlining Requirements**. Projects that cannot meet all CEQA streamlining requirements shown in Table F-1 must also complete **Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions** (Table F-2) to describe alternative GHG emissions reduction measures that serve as replacements to any CEQA streamlining requirements not met by the project.

The following ~~process~~^{processs}, illustrated in **Figure F-1**, explains how to demonstrate consistency of a project with the 2045 CAP's GHG emissions reduction measures and actions, and thereby streamline the project's GHG impacts analysis by tiering from the certified Final PEIR for the 2045 CAP.



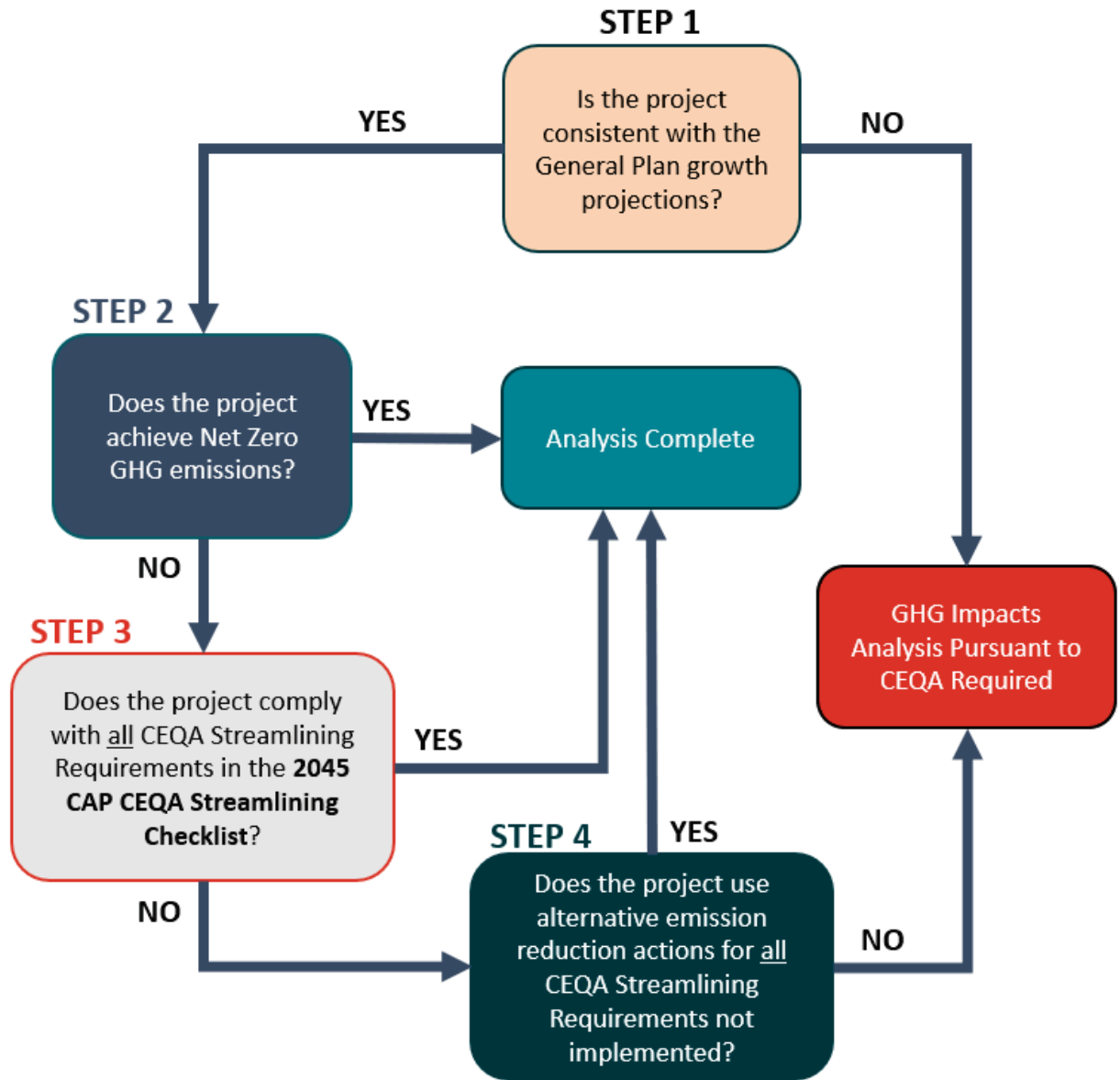


Figure F-1: Determining Consistency with the 2045 CAP for CEQA Streamlining

Step 1: Demonstrate Consistency with the General Plan Growth Projections

All projects must demonstrate consistency with the General Plan growth projections. **If a project is not consistent with the General Plan growth projections, then the 2045 CAP Checklist 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining.** Complete the *General Plan Consistency* section of **Table F-1, General Plan and CEQA Streamlining Requirement Checklist**, below.

The options for determining General Plan consistency (included in Table F-1) are as follows:

- Is the proposed project consistent with the General Plan growth projections? If yes, move to **Step 2** below. If no, the proposed project may not streamline its GHG impacts analysis by using the 2045 CAP’s EIR, and instead must prepare a comprehensive project-specific

analysis of GHG emissions and impacts pursuant to CEQA. Such projects are also encouraged to incorporate all the CEQA streamlining requirements in the 2045 CAP Checklist 2045 CAP CEQA Streamlining Checklist.

Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements

Certain projects may screen out of compliance with certain CEQA streamlining requirements contained in Table F-1 if such projects meet specific criteria. These criteria are designed to ensure high efficiency and low GHG emissions and describe projects that would generally comply with the 2045 CAP.

~~2045 CAP Checklist~~ **2045 CAP CEQA Streamlining Checklist Screening Criteria:** Projects may skip the *Demonstrate Compliance with the CEQA Streamlining Requirements* section of Table F-1 below if they meet the following criteria:

- If the project would achieve ~~net-net zero GHG emissions for project operations at full buildout~~, the project is considered to comply with the 2045 CAP and the analysis is complete.

~~Net z~~ **Net Z** zero GHG emissions ~~for the project operations at full buildout~~ means that the project's GHG emissions from construction and operational activities occurring at full buildout would result in zero total GHG emissions on an annual basis. In other words, all GHGs emitted the atmosphere during construction and operation by a project are balanced completely by GHG sequestration and removal over each calendar year period. Construction GHG emissions should be amortized for the project (typically 30 or 40 years) and added to the annual full buildout operational emissions to determine total annual emissions. Net z In other words, either a project would produce zero total GHG emissions from all sources, or all GHG emissions produced by a project at full buildout operations are balanced completely by carbon sequestration and removal, for each year of operation. Zero GHG emissions for a project does not consider total net-GHG emissions from construction and operation of the proposed project is zero from existing conditions or existing uses at the project site. In other words, all emissions of GHGs emitted the atmosphere during construction and operation are balanced by removals of GHG emissions over each calendar year period. For example, if the project emits 3,000 MTCO₂e per year through both construction and operations but removes or sequesters 3,000 MTCO₂e per year, the project would achieve net zero GHG emissions. For example, if a project implements GHG reducing technologies to reduce its full-buildout operational emissions to emits 1,500 MTCO₂e per year for both construction and operations, but includes the planting of enough new trees to sequester 1,500 MTCO₂e per year, the project would achieve net zero GHG emissions. This zero GHG requirement does not include GHG emissions from construction activities.

To demonstrate that the project achieves ~~net net~~ zero GHG emissions, the applicant must submit a comprehensive quantitative project-specific analysis of all GHG emissions, sinks, and removals, sinks, and removals from construction and operations, consistent with all CEQA guidelines and standard practice for modeling GHG emissions from construction and full buildout full buildout for projects operations, consistent with CEQA guidelines and standard practice for modeling GHG emissions for projects. If the project meets ~~this~~ these criteria, the project does not need to complete **Table F-1** below and the analysis is complete.

Transportation Screening Criteria: Projects may skip CEQA streamlining requirements #3, #4, #5, #11, and #12 of the *Demonstrate Compliance with the CEQA Streamlining Requirements* section of Table F-1 below if they meet the following criteria (based on the 2020 Los Angeles County Department of Public Works Transportation Impact Analysis Guidelines):⁶

1. For development projects:⁷
 - a. If the project does not have a retail component, and the project generates a net increase of less than 110 daily vehicle trips,⁸ then it screens out.
 - b. If the project has a retail component, and it contains retail uses that do not exceed 50,000 square feet of gross floor area,⁹ then it screens out.
 - c. If the project has a residential component, and 100 percent of the units, excluding manager's units, are set aside for lower income households,¹⁰ then it screens out.
 - d. If the project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor¹¹ and meets all of the following criteria, then it screens out:
 - i. Has a Floor Area Ratio greater than 0.75.¹²
 - ii. Provides less parking than required by the Los Angeles County Code.¹³
 - iii. Is consistent with the Southern California Associated of Governments' Regional Transportation Plan/Sustainable Communities Strategy.¹⁴
 - iv. Does not replace residential units set aside for lower income households with a smaller number of market-rate residential units.
2. For transportation projects:¹⁵
 - a. If the project would not include the addition of through traffic lanes on existing or new highways, including general-purpose lanes, high-occupancy vehicle lanes, peak-period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except

⁶ Los Angeles County Department of Public Works. 2020. *Transportation Impact Analysis Guidelines*. July 2020. Available: <https://dpw.lacounty.gov/traffic/trafficreportmsg.cfm>. Accessed February 2022.

⁷ The Transportation Impact Analysis (TIA) Guidelines provide a list of development project types, which include residential, office, manufacturing, institutional, and retail project types. For a complete list, see page 11 of the TIA Guidelines.

⁸ As referenced in: Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

⁹ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁰ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹¹ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹² Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹³ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁴ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁵ The TIA Guidelines describe transportation projects as projects that would increase vehicular/roadway capacity.

managed lanes, transit lanes, and auxiliary lanes of less than 1 mile in length designed to improve roadway safety),¹⁶ then it screens out.

- b. If the project would reduce roadway capacity and VMT,¹⁷ then it screens out.

If the project meets the above criteria, it may skip certain transportation portions of the ~~2045 CAP Checklist~~ 2045 CAP CEQA Streamlining Checklist (see Table F-1 for details).

Step 3: Demonstrate Compliance with the 2045 CAP CEQA Streamlining Requirements

Table F-1 identifies the CEQA streamlining requirements for projects. Projects must demonstrate compliance with the 2045 CAP CEQA streamlining requirements listed in Table F-1 or document why the requirements are not applicable or are infeasible.¹⁸ The corresponding 2045 CAP measures and actions are indicated in the table to provide additional context. The full text of the 2045 CAP measures and actions is provided in the 2045 CAP (see Chapter 3 and Appendix E).

All applicants shall complete the following steps for the *Transportation, Building Energy and Water, Waste, and Agriculture, Forestry, and Other Land Use (AFOLU)* sections of **Table F-1** below (unless the project meets the transportation screening criteria identified in Step 1 above, in which case the project may skip completion of certain sections of the *Transportation* section of Table F-1):

- Step 3a.** Review the ~~project~~ CEQA streamlining requirements described in the column titled “2045 CAP Streamlining Requirement.”
- Step 3b.** Use the check boxes in the column titled “Project Complies” to indicate whether the “Project Complies,” the requirement is “Not Applicable,” or the “Project Does Not Comply and Alternative Measure Proposed.”
- Step 3c.** Provide a qualitative analysis of the proposed project’s compliance with the ~~2045 CAP~~ CEQA streamlining requirements in the column titled “Description of Project Measure(s)/Documentation of Compliance.” This will be the basis for the CEQA analysis to demonstrate compliance with the 2045 CAP, and by extension, with SB 32. The qualitative analysis should provide:
- i. A description of which streamlining requirements are included as part of the proposed project; or
 - ii. A description of why the streamlining requirement is not applicable to the proposed project; or
 - iii. A description of why the streamlining requirements are infeasible. If applicants select “Project Does Not Comply” or “Alternative Measure Proposed,” they must complete Table F-2 to document what alternative project measures will be implemented to achieve a similar level of GHG reduction and how those GHG emissions reduction estimates were calculated.

¹⁶ As noted above, the TIA Guidelines describe transportation projects as projects that would increase vehicular/roadway capacity.

¹⁷ A list of transportation projects that are not likely to lead to a substantial or measurable increase in vehicle miles travelled are included in the County’s TIA Guidelines, pp. 17–19.

¹⁸ Please note that the ~~2045 CAP~~ CEQA streamlining requirements are not mitigation measures as defined by CEQA.

Step 3d. Provide specific project design criteria and/or reporting metrics to support the proposed project's compliance with each ~~2045 CAP CEQA streamlining~~ requirement. Specific information is requested for each respective item in the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist.

Regarding item #2 above, the project applicant can only select “Not Applicable” if the requirement is not relevant to the project. The project applicant should only select “Project Does Not Comply and Alternative Measure Proposed” if it is infeasible, as defined by the CEQA Guidelines, for the project to comply with the checklist requirement. Sufficient documentation of such infeasibility must be supplied to the County to support such a determination. The County retains ultimate discretion for determining the feasibility of the checklist requirement for the proposed project. Further, if “Project Does Not Comply and Alternative Measure Proposed” is selected for a specific checklist requirement, then the project applicant **must** identify an alternative measure to achieve the same or greater level of GHG emissions reduction as the CEQA streamlining requirement with which the project does not comply.

If the project applicant cannot fully complete these requirements, then the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining of GHG emissions impacts. See the *Projects That Cannot Comply*Are Not Eligible for with the CEQA Streamlining Requirements-section for additional instructions.

The 2045 CAP CEQA streamlining requirements are listed as either “Tier 1” or “Tier 2.” These two levels are defined as follows:

Tier 1: Required for all discretionary projects in order to use CEQA streamlining for GHG impacts.

Tier 2: Encouraged for all discretionary projects. Although these measures are not required, projects are strongly encouraged to implement them. In Table F.1 below, these voluntary items are colored with gray shading.

In general, Tier 1 requirements were quantified in the 2045 CAP for GHG emissions reductions needed to achieve the 2030, 2035, and 2045 emissions reduction targets. Because these measures were quantified, they would be required for the 2045 CAP to achieve its full emissions reduction potential. Some Tier 1 measures were not quantified, but they either are required through other code or ordinance (such as compliance with the Transportation Demand Management Ordinance) or are deemed essential for the overall success of the 2045 CAP. Tier 2 requirements were identified as supporting actions but are not deemed essential for the overall success of the 2045 CAP.

Some Tier 1 and Tier 2 requirements point to future County regulations or ordinances that have not yet been developed, such as the forthcoming building decarbonization ordinance. In these instances, projects using the Checklist must only comply with currently adopted ordinances and requirements at the time of project approval.

The ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist includes the following Tier 1 and Tier 2 requirements, organized by strategy area:

Energy Supply

1. Tier 1: Sunset Oil and Gas Operations

2. Tier 1: Utilize 100% Zero-Carbon Electricity

Transportation

3. Meets Transportation Screening Criteria
4. Tier 1: Increase Density Near High-Quality Transit Areas
5. Tier 1: Incorporate Bicycle and Pedestrian Infrastructure
6. Tier 1: Comply with the County Transportation Demand Management (TDM) Ordinance
7. Tier 1: Comply with the County's Transportation Impact Guidelines
8. Tier 1: Incorporate Electric Vehicle Charging Infrastructure
9. Tier 1: Decarbonize Trucks
10. Tier 1: Incorporate Zero-Emission Technologies for Off-Road Vehicles & Equipment
11. Tier 1: Electrify County Fleet Vehicles (for municipal projects only)
12. Tier 2: Achieve a High Jobs/Housing Balance
13. Tier 2: Encourage Transit, Active Transportation, and Alternative Modes of Transportation
14. Tier 2: Implement Parking Limitations

Building Energy and Water

15. Tier 2: Decarbonize Existing Buildings
16. Tier 2: Decarbonize New Buildings
17. Tier 1: Increase Building Energy Efficiency
18. Tier 1: Implement Water Use Efficiency and Water Conservation
19. Tier 2: Reduce the Life-Cycle Carbon Intensity of Building Materials and Phase Out the Use of High-Global Warming Potential (GWP) Refrigerants
20. Tier 2: Use Energy Storage and Microgrids
21. Tier 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture

Waste

22. Tier 1: Compost Organic Materials
23. Tier 1: Recycle Recyclable Materials
24. Tier 2: Incorporate On-site Composting, Mulching, and/or Anaerobic Digestion

Agriculture, Forestry, and Other Land Use

25. Tier 1: Incorporate Tree Plantings and Expand Urban Forest Cover
26. Tier 2: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands
27. Tier 2: Implement Regenerative Agricultural Practices

2045 CAP Appendix B, *Emissions Forecasting and Reduction Methods*, provides the quantitative basis for the CEQA streamlining requirements.

Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions

Projects that propose alternative GHG emissions reduction measures to those identified in Table F-1 or propose to include additional GHG emissions reduction measures beyond those described in Table F-1 shall provide a summary explanation of the proposed measures and demonstrate GHG reductions achievable through the proposed measures.¹⁹ Documentation for these alternative or additional project measures shall be documented in **Table F-2, Applicant Proposed Alternative Project Emissions Reduction Measures**. Any applicants who select “Project Does Not Comply and Alternative Measure Proposed” in Table F-1 must complete the following steps for Table F-2.

- Step 4a.** In the column titled “Description of Alternative Measure,” provide a qualitative description of what measure will be implemented, why it is proposed, and how it will reduce GHG emissions.
- Step 4b.** In the column titled “Description of GHG Reduction Estimate,” demonstrate how the alternative project measure would achieve the same or greater level of GHG emissions reductions as the 2045 CAP CEQA streamlining requirement that it replaces. Documentation and calculation files must be attached separately.

An example alternative project measure may be installing additional EV charging infrastructure beyond what is required by the California Green Building Standards Code (CALGreen Code), County ordinance, or requirements in the forthcoming Zero Emission Vehicle Master Plan, to support zero-emission vehicles beyond what is specified in the 2045 CAP’s performance objectives for Measure T6 (Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales). The applicant would then demonstrate how this would achieve the same or greater level of GHG emissions reductions as the checklist requirement for which it serves as an alternative.

Carbon offset credits are not permitted to be used as alternative project emissions reduction measures.

Guidance for Quantifying GHG Reductions from Alternative Measures

In order to use alternative GHG emissions reduction measures to replace a CEQA streamlining requirement in Table F-1 below, project applicants must use the three-step process outlined below to quantitatively demonstrate how the alternative project measure would achieve the same or greater level of GHG emissions reductions as the CEQA streamlining requirement (or requirements) that it replaces.

Project applicants should follow these three steps:

- Step 4c.** Prepare a detailed quantified GHG emissions inventory for the project taking into consideration all GHG-reducing project features and ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist items included as part of the project (including proposed mitigation measures, project design features, strategies being implemented, and other County requirements).

¹⁹ Please note that the alternative GHG emissions reduction measures are not mitigation measures as defined by CEQA.

Project applicants shall prepare a detailed quantified GHG emissions inventory for the project taking into consideration all GHG-reducing project features and CEQA streamlining requirements included as part of the project (including proposed mitigation measures, project design features, strategies being implemented, and other County requirements), **except** for the alternative GHG emissions reduction measures proposed by the applicant to replace any Tier 1 CEQA streamlining requirement (as described in Step 4e). Applicants should use CalEEMod, CARB's Emission FACTor model (EMFAC),²⁰ the CAPCOA Handbook, and other commonly accepted GHG modeling methods and protocols.

- Step 4d.** For each Tier 1 ~~Checklist~~ CEQA streamlining requirement that the project will not meet, include a quantified calculation of the additional GHG emission reductions that would have occurred had the project implemented the Tier 1 Checklist streamlining requirement.

Project applicants shall, for all Tier 1 CEQA streamlining requirements that the project will not meet, a quantified calculation of the additional GHG emission reductions that would have occurred had the project implemented those Tier 1 CEQA streamlining requirements. In order to do this, applicants shall prepare a project model run assuming the implementation of all Tier 1 CEQA streamlining requirement that the project will not meet. Applicants should then compare the project's GHG emissions from this scenario with the project's GHG emissions from Step 4c above. The difference in GHG emissions between the two scenarios represents the GHG emission reductions that would have occurred had the project implemented all Tier 1 CEQA streamlining requirements; this is the amount of GHG emissions required to be reduced in total by the alternative GHG emissions reduction measures.

- Step 4e.** Propose an alternative measure (or set of measures) and demonstrate quantitatively that the alternative measures would achieve a GHG emission reduction equivalent to the GHG emission reduction that would have resulted from complying with the Tier 1 ~~Checklist~~ CEQA streamlining requirement.

Project applicants shall provide a quantified measure or set of measures that closes the gap between the two scenarios as quantified in Step 4c and Step 4d. In order to do this, applicants shall prepare a project model similar to Step 4c but include all alternative GHG emissions reduction measures proposed by the applicant. The resulting GHG emissions from this model run must equal or be less than the GHG emissions resulting from the project model run in Step 4d above which assumes the implementation of all Tier 1 CEQA streamlining requirements. In other words, the GHG emission reductions achieved by the alternative measures must meet or exceed the GHG emission reductions achieved by the Tier 1 CEQA streamlining requirements.

Project applicants shall submit documentation to the City demonstrating all three steps above. This can include model run inputs and/or outputs, excel calculation files, or other documentation of the emission calculations.

²⁰ California Air Resources Board. 2022. EMFAC2021 Model. Version v1.0.2. Available: <https://arb.ca.gov/emfac/>. Accessed June 2023.

Potential alternative GHG emissions reduction measures to be considered include, but are not limited to, measures recommended in the South Coast Air Quality Management District's latest CEQA Air Quality Guidelines, the California Air Resources Board Scoping Plan (December 2022, as may be revised),²¹ the California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (December 2021, as may be revised),²² the CAPCOA California Emissions Estimator Model (CalEEMod),²³ the California Attorney General's *Mitigation for Greenhouse Gas Emissions* guidance,²⁴ and Reference Guides on Leadership in Energy and Environmental Design (LEED) published by the U.S. Green Building Council.²⁵

As for any project design features or mitigation measures implemented via the County's project approval and CEQA review process, the project applicant shall implement all alternative GHG emissions reduction measures proposed. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits and implemented during construction. For operational GHG reduction measures to be incorporated into the project, the measures shall be implemented on ongoing basis.

Offsite GHG Reduction Program

~~Action ES5.4 of the 2045 CAP would establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would allow new development to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions. The Offsite GHG Reduction Program could be used for projects that propose alternative GHG emissions reduction measures to those identified in Table F-1, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1. Once the Offsite GHG Reduction Program has been instituted by the County, project applicants will be able to use the program to complete Table F-2. Once established, the Offsite GHG Reduction Program should only be used after all feasible on-site GHG reduction measures are implemented at the project site to demonstrate compliance with the CEQA streamlining requirements. See Section F.4 for additional details.~~

Projects That ~~Cannot Comply with~~ Are Not Eligible for the CEQA Streamlining Requirements

In some cases, a project may not be able to comply with ~~demonstrate compliance with all~~ meet all of the 2045 CAP CEQA GHG streamlining requirements. This may be because the project is inconsistent with the General Plan's growth projections as described in Step 1. Or a project may not be able to feasibly incorporate all CEQA streamlining requirements as identified in Table F-1 and discussed in Step 3; such a project may further be unable to adequately identify alternative project measures to achieve a similar level of GHG reduction to ~~infeasible~~ each CEQA streamlining requirements which a project cannot comply with. Such projects are not eligible to

streamline environmental review of their GHG impacts using the 2045 CAP's PEIR and must may be required to prepare a comprehensive project-specific analysis of GHG emissions pursuant to CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist).

A comprehensive project-specific analysis of GHG emissions must be prepared for any project that elects not to use the Checklist for CEQA streamlining by completing Table F-1 and (if applicable) Table F-2. Such an analysis shall quantify existing and projected GHG emissions and evaluate potential impacts pursuant to the CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist). It is strongly encouraged that the project incorporate all the CEQA streamlining requirements in the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist, though this is not required.

F.3 2045 CAP CEQA Streamlining Checklist

Table F-1, *General Plan and 2045 CAP CEQA Streamlining Requirement Checklist*, allows the applicant to demonstrate compliance with the 2045 CAP's GHG emissions reduction measures and actions. This table addresses **Step 1: Demonstrate Consistency with the General Plan Growth Projections**; **Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements**; and **Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements**. This checklist must be completed for all applicable projects electing to streamline their CEQA GHG analysis.

Table F-2, *2045 CAP Greenhouse Gas Emissions Reduction Alternative Measures*, allows the project applicant to document alternative GHG emissions reduction measures used to demonstrate compliance with the Table F-1 CEQA streamlining requirements. This table addresses **Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions**. This checklist is required only for projects that propose to use alternative GHG emissions reduction measures.

Table F-1: General Plan and 2045 CAP CEQA Streamlining Requirement Checklist

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|--|--|
| Step 1: Demonstrate Consistency with the General Plan Growth Projections | | |
| <p>1. The Project is Consistent with the General Plan Growth Projections</p> <p>The growth projections included in the General Plan were used in the 2045 CAP to estimate unincorporated Los Angeles County GHG emissions over time. Therefore, projects must be consistent with the General Plan to comply with the CEQA streamlining requirements. To determine a project’s consistency with the General Plan growth projections, please answer the following question and provide an explanation with supporting documentation.</p> <p>Is the proposed project consistent with the existing land use designation of the Land Use Element and the 2021 Housing Element Update?</p> <p>If “Yes,” proceed to Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements below.</p> <p>If “No,” the proposed project may not streamline its GHG impacts analysis by using the 2045 CAP’s EIR and must prepare a comprehensive project-specific analysis of GHG emissions and impacts pursuant to CEQA.</p> | <p><i>Describe how the project is consistent with the General Plan growth projections. Provide additional supporting documentation as an attachment as needed.</i></p> <p><i>OR,</i></p> <p><i>Explain why the project is not consistent with the General growth projections, and whether the project would include a General Plan amendment. If the project includes a General Plan amendment, STOP HERE.</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| Step 2: Determine Whether the Project Screens Out of Certain the CEQA Streamlining Requirements | | |
| <p>Certain projects may screen out of the 2045 CAP Checklist <u>2045 CAP CEQA Streamlining Checklist</u> Requirements if they meet the following screening criteria <u>criteria</u>.</p> <p>Does the project achieve net zero GHG emissions? The project must conduct a comprehensive project-specific analysis of all GHG emissions, sinks, and removals, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for projects, to demonstrate that the project achieves net zero GHG emissions.</p> <p>If “Yes,” the project would comply with the CEQA streamlining requirements and no additional analysis is needed (no project-specific GHG impact analysis would be required).</p> <p>If “No,” proceed to Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements below.</p> | <p><i>If “Yes,” attach to this checklist the estimated project GHG emissions. Provide supporting calculation files and documentation for this analysis. If the proposed project is determined to result in net zero GHG emissions, STOP HERE.</i></p> <p><i>If “No,” proceed to Step 3 below.</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|--|---|--|
| Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements | | |
| Energy Supply | | |
| <p>1. TIER 1: Sunset Oil and Gas Operations For any project involving the decommissioning, replacement, retrofit, or redesign of infrastructure or facilities associated with the oil and gas industry, including energy generation (i.e., cogen), the project must:</p> <ul style="list-style-type: none"> A) Comply with the Oil Well Ordinance (Title 22). B) Reduce fossil fuel–based emissions by at least 80% compared to existing conditions. C) If the project site includes existing active and abandoned oil wells, examine all wells for fugitive emissions of methane. Reduce such existing emissions by a minimum of 80%. D) To reduce any residual fossil fuel–based emissions generated by the project, incorporate carbon removal technologies including direct air capture and carbon and sequestration, as feasible. <p>Supports 2045 CAP Measures (and Actions): ES1 (ES1.1, ES1.2, ES1.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below).</i> <i>IN ADDITION, provide documentation of the project’s ability to reduce fossil fuel–based emissions, including fugitive methane emissions.</i> <i>Provide the number of oil and gas operations/wells closed. Provide documentation of any carbon removal technologies incorporated at the project site.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>2. TIER 1: Utilize 100% Zero-Carbon Electricity The project must utilize 100% zero-carbon electricity on-site. The project must comply with one of the following options:</p> <ul style="list-style-type: none"> A) Install on-site renewable energy systems or participate in a community solar program to supply 100% of the project’s estimated energy demand to the maximum extent feasible. B) Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until SCE provides 100% carbon-free electricity for all accounts by default. C) Participate in the Clean Power Alliance at the Clean Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until CPA provides 100% carbon-free electricity for all accounts by default. D) A combination of #1, #2, and #3 above such that 100% of the project’s electricity consumption is supplied by zero-GHG emission sources of power generation, whether by utilities or by on-site electricity generation or both. <p>Supports 2045 CAP Measures (and Actions): ES2 (ES2.1, ES2.2), ES3 (ES3.1, ES3.2, ES3.3, ES3.4, ES3.5, ES3.6)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i> <i>IN ADDITION, provide the project’s anticipated electricity demand, the project’s participation and opt-out rates for SCE’s Green Rate and CPA’s Clean Rate electricity rate options used by tenants; and the total kW of solar PV panels installed at the project site.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| Transportation | | |
| <p>3. Meets Transportation Screening Criteria</p> <p>For <u>development projects</u>, does the project:</p> <p>A) have no retail component and generate a net increase of less than 110 daily vehicle trips?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to item (B) below.</p> <p>For <u>development projects</u>, does the project:</p> <p>B) have a retail component and contains retail uses that do not exceed 50,000 square feet of gross floor area?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below. If the project contains retail and is mixed use, proceed to item (C) below.</p> <p>If “No,” proceed to item (C) below.</p> <p>For <u>development projects</u>, does the project:</p> <p>C) have a residential component and 100% of the units, excluding manager’s units, are set aside for lower income households?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below. If the project contains retail and is mixed use, proceed to item (D) below.</p> <p>If “No,” proceed to item (D) below.</p> <p>For <u>development projects</u>:</p> <p>D) Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor <u>and</u>:</p> <ul style="list-style-type: none"> i. has a Floor Area Ratio greater than 0.75? ii. provides less parking than required by the Los Angeles County Code? iii. is consistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS)? iv. does not replace residential units set aside for lower income households with a smaller number of market-rate residential units? <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to streamlining requirement #3 below.</p> <p>For <u>transportation projects</u>, does the project meet <u>one</u> of the following transportation screening criteria?</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure(s) proposed as an alternative strategy (provide additional documentation as necessary).</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

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| <p>A) The project would not include the addition of through traffic lanes on existing or new highways, including general-purpose lanes, high-occupancy vehicle (HOV) lanes, peak-period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than 1 mile in length designed to improve roadway safety).</p> <p>B) The project would reduce roadway capacity and VMT.</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to streamlining requirement #4 below.</p> <p>Supports 2045 CAP Measures (and Actions): T1 (T1.1, T1.2)</p> | | |
| <p>4. TIER 1: Increase Density Near High-Quality Transit Areas</p> <p>If the project is located within a High Quality Transit Area (HQTA), it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Rezoning Program.</p> <p>If the project is not located within an HQTA, it must locate residential and employment centers within 1 mile of an HQTA.</p> <p>Supports 2045 CAP Measures (and Actions): T1 (T1.1, T1.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below).</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>5. TIER 1: Incorporate Bicycle and Pedestrian Infrastructure</p> <p>The project must incorporate pedestrian and bicycle infrastructure into its design:</p> <p>A) Provide pedestrian facilities and connections to public transportation consistent with the Pedestrian Action Plan, Active Transportation Plans, and Vision Zero Action Plan, and any other relevant governing plan.</p> <p>B) Provide bicycle facilities consistent with the Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan, and any other relevant governing plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen Code.</p> <p>C) Increase sidewalk coverage to improve pedestrian access.</p> <p>D) Improve degraded or substandard sidewalks.</p> <p>E) Incorporate best practices to ensure pedestrian infrastructure is contiguous and links externally with existing and planned pedestrian facilities; best practices include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety.</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)</i></p> <p><i>IN ADDITION, provide the length and/or amount of bicycle and pedestrian infrastructure incorporated, such as feet or miles of bikeways.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>F) Minimize barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings.</p> <p>G) Provide bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added off-street vehicle parking spaces.</p> <p>H) Provide short- and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity and nothing less than CALGreen Code requirements, whichever is more restrictive.</p> <p>I) Support the County’s goal to increase bikeway miles by 300 percent by 2030 (including Class I bike paths, Class II bike lanes, and Class III bike routes).</p> <p>Supports 2045 CAP Measures (and Actions): T3 (T3.1, T3.2, T3.3)</p> | | |
| <p>6. TIER 1: Comply with the County Transportation Demand Management (TDM) Ordinance</p> <p>The Project must comply with the TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. Comply with any applicable VMT reduction target and incorporate any required monitoring mechanisms for development, subject to the ordinance.</p> <p>Supports 2045 CAP Measures (and Actions): T4 (T4.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i></p> <p><i>IN ADDITION, provide the number of employers participating in the TDM program, the total trip reduction goals for the project’s TDM program, and the total trips and VMT reduced via the project’s TDM program.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>7. TIER 1: Comply with the County’s Transportation Impact Guidelines</p> <p>The project must comply with the County’s current Transportation Impact Analysis (TIA) Guidelines. Projects may screen out if they meet certain criteria, such as being located in a transit priority area or local-serving retail development less than 50,000 square feet. Projects that do not screen out must meet the VMT efficiency metrics identified by the TIA Guidelines (e.g., daily VMT per capita for residential projects that is 16.8% below the existing residential VMT per capita for the Baseline Area in which the project is located) and quantitatively demonstrate how these metrics are achieved, pursuant to the TIA Guidelines requirements.</p> <p>Supports 2045 CAP Measures (and Actions): T1, T2, T3, T4, T5</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed strategy (provide additional documentation as described below).</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>8. TIER 1: Incorporate Electric Vehicle Charging Infrastructure The project must incorporate zero-emission vehicle (ZEV) infrastructure and incentives into its design as follows:</p> <ul style="list-style-type: none"> A) Comply with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of electric vehicle (EV) charging infrastructure (EVCSs) and readiness. This may include minimum requirements for EV charging stations, EV-capable parking spaces, and EV-ready parking spaces. B) Comply with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan.¹ C) Include electric options for promoting active transportation, such as electric scooters and e-bikes. D) Provide education and outreach to tenants and occupants about the benefits of ZEVs and the project's EV infrastructure. <p>Supports 2045 CAP Measures (and Actions): T6 (T6.1, T6.2, T6.3, T6.4, T6.5, T6.6, T6.7)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i> <i>IN ADDITION, provide the number of ZEVs in the project's tenant's and vendor fleet, if available; the number of public and private EVCSs installed; and the number of scooters/e-bikes available to tenants.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>9. TIER 1: Decarbonize Trucks For projects that include goods movement facilities and/or warehouses, the project must incorporate freight decarbonization technologies and infrastructure, including:</p> <ul style="list-style-type: none"> A) Comply with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness for goods movement facilities and trucks. B) Provide EVCSs at all new warehouse loading docks. C) Comply with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan related to goods movement. D) Implement freight decarbonization technologies along highway corridors. E) For all goods movement facilities, install alternative fueling infrastructure such as EVCSs, green hydrogen fueling stations, and/or biomethane fueling stations. F) Comply with any established zero-emission delivery zones. <p>Supports 2045 CAP Measures (and Actions): T8 (T8.1, T8.2, T8.3, T8.4, T8.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide the number of ZEV trucks in the project's tenant's and vendor fleet if available and the number EVCS installed.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>10. TIER 1: Incorporate Zero-Emission Technologies for Off-Road Vehicles & Equipment</p> <p>The project must:</p> <ul style="list-style-type: none"> A) Prohibit the use of small equipment powered by gasoline, diesel, propane, or other fossil fuels, including lawn and garden equipment and outdoor power equipment, for all tenants and owners. B) Provide educational materials to tenants regarding the SCAQMD Electric Lawn and Garden Equipment Incentive and Exchange Program, Commercial Lawn & Garden Battery Buy-Down Rebate Program, the Residential Lawn Mower Rebate Program, the new requirements of AB 1346, and any other available options and incentives for purchasing zero-emission equipment, including rebates and subsidies offered by CARB, the County, or other agencies and entities. C) Use electric and zero-emission construction equipment during project construction to the maximum extent feasible. Such equipment shall include forklifts, manlifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers, and other small equipment. At minimum, the project must use off-road construction equipment that meet CARB Tier 4 Final engine emission standards. D) Use electric and zero-emission agriculture and manufacturing equipment to the maximum extent feasible. <p>These requirements must be stipulated in the contract specifications for the project’s construction and for the project’s future tenants and any landscaping contracts for the property or tenants.</p> <p>Supports 2045 CAP Measures (and Actions): T9 (T9.1, T9.2, T9.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide off-road vehicle and equipment fleet count, type, and fuel type, as available.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>11. TIER 1: Electrify County Fleet Vehicles (for municipal projects only)</p> <p>For all new municipal projects and facilities that include the purchase or operation of new fleet vehicles, including public transit buses and shuttles, all such fleet vehicles must be ZEVs.</p> <p>Supports 2045 CAP Measures (and Actions): T7 (T7.1, T7.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the number of new ZEV buses and the total ZEV percentage of the project’s fleet.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>12. TIER 2: Achieve a High Jobs/Housing Balance For projects with nonresidential development, the Project must incorporate the following design elements: A) Support the County’s goal to achieve a job density of 300 jobs per acre. Supports 2045 CAP Measures (and Actions): T2 (T2.1)</p> | <p><i>Describe how the project will achieve a job density of 300 jobs per acre.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR <i>Describe why such actions are not incorporated into your project.</i> IN ADDITION, provide the job density of the project in terms of jobs per acre.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |
| <p>13. TIER 2: Encourage Transit, Active Transportation, and Alternative Modes of Transportation For transit projects only, incorporate the following: A) Expand and improve frequency of existing network of County shuttles. B) Install bus-only lanes and signal prioritization along major thoroughfares. C) Install full bus rapid transit infrastructure along priority corridors. For all other projects, incorporate the following: A) Provide new mobility services, such as micro transit, autonomous delivery vehicles, and on-demand autonomous shuttles, in unincorporated Los Angeles County. B) Offer free transit passes for students, youth, seniors, disabled, and low-income populations. C) Implement telecommuting by project tenants and residents. D) Establish temporary and permanent car-free areas at the project site. Supports 2045 CAP Measures (and Actions): T4 (T4.1, T4.2, T4.3, T4.6, T4.7, T4.8, T4.10)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are not incorporated into your project.</i> IN ADDITION, for transit projects, provide the size of area served by transit, the number of employees and residents served by transit, the transit service frequency and headways, the increase in headways or frequencies provided by the project, total transit service hours provided by transit, the number and length of bus-only lanes, and information on signal prioritization on transit routes implemented by the project. For non-transit projects, provide the number of residents within one-half mile of bus or active transportation services; information on any new mobility services offered, information on free transit passes offered, the number of employers participating in telecommuting programs, and the number and location of car-free areas provided by the project.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |
| <p>14. TIER 2: Implement Parking Limitations Projects should include the following characteristics: A) Shared and reduced parking strategies, such as shared parking facilities, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces, and reduced parking below allowable amount B) Minimum amount of required parking C) Unbundled parking costs to reflect cost of parking D) Parking pricing to encourage “park-once” behavior E) Compliance with all County parking reform strategies and policies Supports 2045 CAP Measures (and Actions): T5 (T5.1)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions not incorporated into your project.</i> IN ADDITION, provide the total number of parking spaces, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces; information on parking costs and unbundling; and parking prices.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |

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| Building Energy and Water | | |
| <p>15. TIER 2: Decarbonize Existing Buildings This action applies only to projects that include a retrofit, remodel, or redesign of an existing building. If the proposed project does not include a retrofit, remodel, or redesign, select "Not Applicable" in the <i>Project Complies</i> column. The project must incorporate the following design elements: A) Achieve zero GHG emissions for on-site energy use. B) Comply with all applicable Building Performance Standards.² C) Comply with all building carbon intensity limits.³ D) If the project is a major renovation, achieve ZNE and/or comply with the City's ZNE ordinance.⁴ Supports 2045 CAP Measures (and Actions): E1 (E1.1, E1.2, E1.3, E1.4, E1.5, E1.6)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the project's anticipated GHG emissions associated with on-site energy consumption (i.e., natural gas use and electricity use) and the number of existing buildings transitioned to zero-GHG buildings.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>16. TIER 2: Decarbonize New Buildings For projects under construction before 2030, the project must achieve zero GHG emissions for on-site energy use, and/or comply with the County's building decarbonization ordinance, unless the project meets specific exemptions identified in the ordinance.⁵ For projects under construction after 2030, the project must be zero-net-energy (ZNE) and achieve zero GHG emissions for on-site energy use, and/or comply with the County's ZNE ordinance, unless the project meets specific exemptions identified in the ordinance.⁶ Supports 2045 CAP Measures (and Actions): E2 (E2.1, E2.2, E2.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the number and square footage of zero GHG emission buildings built, all ZNE buildings built, and the total GHG emissions anticipated for all buildings.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>17. TIER 1: Increase Building Energy Efficiency This action applies only to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the <i>Project Complies</i> column. The project shall incorporate the following energy efficiency measures into the design:</p> <ul style="list-style-type: none"> A) Comply with all applicable building performance standards.⁷ B) Incorporate strategic energy management programs to reduce building energy demands. C) Conduct an energy audit or benchmarking analysis to identify potential energy savings opportunities and implement such opportunities. D) Achieve CALGreen Code Tier 2 or voluntary building energy measures as they apply to the retrofit. E) Replace existing appliances with higher-efficiency models. F) Install heat-trapping surfaces to cool or green surfaces, as feasible. G) Participate in SoCalREN, SCE, CPA, or other energy efficiency programs. H) Conduct other energy efficiency retrofits. I) Achieve zero-net-energy, if feasible. <p>Supports 2045 CAP Measures (and Actions): E4 (E4.1, E4.2, E4.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the total number of energy retrofits performed, the building size (square footage) retrofit, the total project energy use and anticipated energy savings through retrofits, and the number and area of cool and green roofs installed.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>18. TIER 1: Implement Water Use Efficiency and Water Conservation The project must comply with the current water conservation ordinance in place, including any requirements for LEED or Sustainable SITES standards.⁸ The project must also incorporate water use efficiency and conservation measures, including:</p> <ul style="list-style-type: none"> A) High-efficiency appliances/fixtures to reduce water use, and/or include water-efficient landscape design B) CALGreen Code Tier 1 and Tier 2 voluntary water conservation measures C) Low-flow or high-efficiency water fixtures D) Water-efficient landscapes with lower water demands than required by the DWR 2015 Model Water Efficient Landscape Ordinance E) Drought-tolerant and native plant species only F) A comprehensive water conservation strategy G) Educational materials provided to future tenants and building occupants about water-saving behaviors and water-conserving landscaping | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the project's estimated total water consumption (in GPCD or total gallons), the square footage of buildings that are water-neutral, and the project's building size (square footage).</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

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| <p>Supports 2045 CAP Measures (and Actions): E6 (E6.1, E6.2, E6.3, E6.4, E6.5)</p> | | |
| <p>19. TIER 2: Reduce the Life-Cycle Carbon Intensity of Building Materials and Phase Out the Use of High-GWP Refrigerants</p> <p>The project must incorporate the following design elements to the maximum extent feasible:</p> <ul style="list-style-type: none"> A) For projects that are not fully electric, incorporate biomethane into the natural gas mix in place of traditional natural gas. B) Use negative-carbon concrete for all construction. C) Use low-GWP refrigerants and fire suppression equipment for all uses on-site. D) Comply with all County codes and ordinances regarding building material carbon intensity and high-GWP refrigerants and other gases. <p>Supports 2045 CAP Measures (and Actions): E3 (E3.1, E3.2, E3.3, E3.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the amount of biomethane used by the project, the quantity of negative-carbon concrete for construction, and the quantity of low-GWP refrigerants and fire suppression equipment used.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply |
| <p>20. TIER 2: Use Energy Storage and Microgrids</p> <p>The project must incorporate the following design elements to the maximum extent feasible:</p> <ul style="list-style-type: none"> A) Install energy storage systems. B) Use a building-scale or community microgrid to support demand management and peak shaving. <p>Supports 2045 CAP Measures (and Actions): ES4 (ES4.1, ES4.2, ES4.3, ES4.4, ES4.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are not incorporated into your project</i></p> <p><i>IN ADDITION, provide the total kW of energy storage capacity installed and operational information for any microgrids utilized, if applicable.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply |
| <p>21. TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture</p> <p>The project must implement water reuse strategies onsite through the following design elements:</p> <ul style="list-style-type: none"> A) Require use of reclaimed/recycled water and/or graywater for outdoor uses. B) Install residential graywater systems that meet appropriate regulatory standards. C) Install rainfall capture systems. D) Install dual plumbing for the use of recycled water. <p>Supports 2045 CAP Measures (and Actions): E5 (E5.1, E5.2, E5.3, E5.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are not incorporated into your project</i></p> <p><i>IN ADDITION, provide the amount of reclaimed/recycled water and/or graywater used by the project.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|--|--|
| Waste | | |
| <p>22. TIER 1: Compost Organic Materials</p> <p>The project must comply with all state and local requirements for composting and organic waste collection, including but not limited to Chapter 20.91 (Mandatory Organic Waste Disposal Reduction Ordinance) of the Los Angeles County Code, including all County requirements pursuant to AB 1826 and SB 1383. The project must also:</p> <ul style="list-style-type: none"> A) Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick-up of collection containers to meet the needs of the occupants. B) Include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. Provide educational material and training to occupants and tenants in how to properly separate organics from all other solid waste and place organics in a separate container designated for organics. C) Ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting. D) Require that all single-use food service ware (plates, bowls, cups) and accessories (straws, utensils, condiment cups) used by tenants at the project site be BPI certified compostable fiber, except where certain materials may be deemed medically necessary or necessary to ensure equal access for persons with disabilities. E) Require that any single-use accessories (straws, utensils, condiment cups) be only available on demand. F) Ensure that containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the County as requested. G) Work with the waste hauler to provide educational materials to tenants on at least an annual basis. H) Provide compliance data to the County as required for any current auditing program. <p>Supports 2045 CAP Measures (and Actions): W1 (W1.1, W1.2) and W2 (W2.1, W2.2, W2.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the project's estimated organic waste generation (tons), the amount of organic waste sent to landfills, and the amount of organic waste generated by the project which is diverted from landfills.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|--|---|
| <p>23. TIER 1: Recycle Recyclable Materials</p> <p>The project must comply with all state and local requirements for recycling, also including but not limited to Section 20.72.170 (Recyclable Materials Collection Program) of the Los Angeles County Code and all County requirements pursuant to AB 341 and AB 1826. The project must also:</p> <ul style="list-style-type: none"> A) Comply with any zero waste ordinance in place at the time of project approval. B) Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse). C) Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick-up of collection containers to meet the needs of the occupants. D) Include space for multi-stream collection containers in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. Provide educational materials and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling. E) Ensure that all project occupants and tenants separate recyclables from all other refuse and place recyclables in a separate container designated for recycling. F) Require that all single-use food service ware (plates, bowls, cups) and accessories (straws, utensils, condiment cups) used by tenants at the project site be BPI certified compostable fiber, except where certain materials may be deemed medically necessary or necessary to ensure equal access for persons with disabilities. G) Require that any single-use accessories (straws, utensils, condiment cups) be only available on demand. H) Ensure that containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the County as requested. I) Work with the waste hauler to provide educational materials to tenants on at least an annual basis. J) Provide compliance data to the County as required for any current auditing program. <p>Supports 2045 CAP Measures (and Actions): W1 (W1.1, W1.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the total C&D tonnage recycled and/or diverted from landfills, the project's estimated recyclable waste generation (tons), the amount of recyclable waste sent to landfills, and the amount of recyclable waste generated by the project which is diverted from landfills.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|--|--|--|
| <p>24. TIER 2: Incorporate On-Site Composting, Mulching, and/or Anaerobic Digestion</p> <p>The project may incorporate organic waste processing capabilities, such as composting, mulching, or anaerobic digestion facilities (where applicable). Collaborate with PW and waste agencies to share organic processing information with interested parties.</p> <p>Supports 2045 CAP Measures (and Actions): W2 (W2.2, W2.3, W2.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide information on any anaerobic digestion facilities constructed including their capacity and the amount of organic waste digested and converted to electricity, and the project's total energy generation from organic waste.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| Agriculture, Forestry, and Other Land Use (AFOLU) | | |
| <p>25. TIER 1: Incorporate Tree Plantings and Expand Urban Forest Cover</p> <p>The project must:</p> <ul style="list-style-type: none"> A) Enhance and expand urban forest cover and vegetation by planting trees and other vegetation. All trees and vegetation planted must be drought-tolerant or California native trees and plants. B) Comply with the Urban Forest Management Plan. C) Replace all native trees removed by the project with an equal or greater number of new trees. D) To the extent feasible, incorporate equitable urban forest practices and prioritize: <ul style="list-style-type: none"> i. Tree- and park-poor communities ii. Climate and watershed-appropriate and drought/pest-resistant vegetation iii. Appropriate watering, maintenance, and disposal practices iv. Shading v. Biodiversity <p>Supports 2045 CAP Measures (and Actions): A3 (A3.1, A3.2, A3.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the total number of trees planted, the total tree canopy cover, the project's total green space area, and the area of impervious surface converted to pervious surfaces.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|---|---|
| <p>26. TIER 2: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands</p> <p>For all projects involving the preservation, conservation, and restoration of agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County, the project may:</p> <ul style="list-style-type: none"> A) Support the use of public and private land for urban and peri-urban agriculture, such as community gardens, and including urban vertical surfaces. B) Conserve and restore natural forest lands, wetlands and wildlands through land acquisitions and conservation easements. C) Preserve existing agricultural and farmlands, including those mapped as Agricultural Resource Areas. Expand adjoining areas to enlarge farmland area. D) Actively manage forests to reduce wildfire risk and prevent carbon loss in forest lands. <p>Supports 2045 CAP Measures (and Actions): A1 (A1.1 and A1.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the total number of acres preserved, conserved, and restored by land type, the number and size of community gardens added, the amount of vertical surface converted, and the acres of forest land managed for wildfire risk reduction and carbon stock savings if applicable.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| <p>27. TIER 2: Implement Regenerative Agricultural Practices</p> <p>For all agricultural projects, the project may:</p> <ul style="list-style-type: none"> A) Utilize fallow and field resting practices to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. B) Implement a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture. C) Use compost and/or organic fertilizer. <p>Supports 2045 CAP Measures (and Actions): A2 (A2.1, A2.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the quantity of synthetic fertilizers and compost used / applied, the number of acres of cover crops using regenerative agricultural techniques, the tonnage of fertilizer/compost produced each year.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|--|---|------------------|
| <p>NOTES: Abbreviations: 2045 CAP = 2045 Los Angeles County Climate Action Plan; AB = Assembly Bill; AFOLU = Agriculture, Forestry, and Other Land Use; C&D = Construction & Demolition; CALGreen Code = California Green Building Standards Code; CAP = Climate Action Plan; CARB = California Air Resources Board; CEQA = California Environmental Quality Act; County = County of Los Angeles; CPA = Clean Power Alliance; DU = dwelling unit(s); DWR = California Department of Water Resources; EIR = environmental impact report; EV = electric vehicle; EVCS = electric vehicle charging station; General Plan = Los Angeles County General Plan 2035; GHG = greenhouse gas; GWP = global warming potential; HOV = high-occupancy vehicle; HQT A = High Quality Transit Area; kW = kilowatts; LEED = Leadership in Energy and Environmental Design; MWELO = Model Water Efficient Landscape Ordinance; PV = photovoltaic; PW = Los Angeles County Department of Public Works; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SCE = Southern California Edison; SoCalREN = Southern California Regional Energy Network; TDM = transportation demand management; TIA = Transportation Impact Analysis; VMT = vehicle miles traveled; WUI = wildland urban interface; ZEV = zero-emission vehicle; ZNE = zero net energy.</p> <p>¹ Although the County has not yet developed the Zero Emission Vehicle Master Plan, the County will develop such a Plan before 2030, pursuant to Implementing Action T6.1 in the 2045 CAP.</p> <p>² Although the County has not yet developed building performance standards, the County will develop such a standard before 2030, pursuant to Implementing Action E1.1 in the 2045 CAP.</p> <p>³ Although the County has not yet developed carbon intensity limits, the County will develop such a standard before 2030, pursuant to Implementing Action E1.2 in the 2045 CAP.</p> <p>⁴ Although the County has not yet developed a ZNE ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E1.3 in the 2045 CAP.</p> <p>⁵ Although the County has not yet developed a building decarbonization ordinance, the County will develop such an ordinance before 2030, pursuant to Implementing Action E2.1 in the 2045 CAP.</p> <p>⁶ Although the County has not yet developed a ZNE ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E2.2 in the 2045 CAP.</p> <p>⁷ Although the County has not yet developed building performance standards, the County will develop such a standard before 2030, pursuant to Implementing Action E4.1 in the 2045 CAP.</p> <p>⁸ Although the County has not yet developed a net zero water ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E6.1 in the 2045 CAP.</p> <p>⁹ Although the County has not yet developed building performance standards for building material carbon intensity and high-GWP refrigerants, the County will develop standards before 2030, pursuant to Implementing Actions E3.3 and E3.4 in the 2045 CAP.</p> | | |

Table F-2: 2045 CAP Greenhouse Gas Emissions Reduction Alternative Measures

| DESCRIPTION OF PROPOSED ALTERNATIVE MEASURE | DESCRIPTION OF GHG REDUCTION ESTIMATE |
|--|--|
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |

F.4 Offsite GHG Reduction Program Framework

Introduction

Action ES5.4 of the 2045 CAP would establish an Offsite GHG Emissions Reduction Program (Offsite Program) for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would allow new development to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions. An Offsite GHG Emissions Reduction Program (Offsite Program) will be developed. Future projects that cannot achieve net-zero GHG emissions or are unable to comply with all required CEQA streamlining requirements would have the option to participate in the Offsite Program. The Offsite GHG Reduction Program could be used for projects that propose alternative GHG emissions reduction measures to those identified in Table F-1, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1. This program would allow project applicants to implement local projects that reduce GHG emissions in unincorporated Los Angeles County (referred to herein as *offsite projects*). Such offsite projects must not otherwise be required by law or regulation and would not have happened but for the requirements placed on the project by the 2045 CAP Checklist/2045 CAP CEQA Streamlining Checklist.

Offsite GHG Reduction Program

Action ES5.4 of the 2045 CAP would establish an Offsite GHG Emissions Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would allow new development to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions. The Offsite GHG Reduction Program could be used for projects that propose alternative GHG emissions reduction measures to those identified in Table F-1, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1. Once the Offsite GHG Reduction Program has been instituted by the County, project applicants will be able to use the program to complete Table F-2. Once established, the Offsite GHG Reduction Program should only be used after all feasible on-site GHG reduction measures are implemented at the project site to demonstrate compliance with the CEQA streamlining requirements. See Section F.4 for additional details.

This section represents a *framework* for the forthcoming Offsite Program; the actual program will be developed after the 2045 CAP is adopted.

CARB Guidance on Offsite GHG Reductions

As discussed in Section F.1, CARB supports “off-site GHG mitigation” in Appendix D of the 2022 Scoping Plan for projects that have implemented all feasible on-site GHG reductions: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore

options to fund or implement *local*, off-site direct GHG reduction strategies.”²⁶ The Offsite Program would achieve these goals.

Relationship to 2045 CAP Measures and Actions

The offsite projects that will be allowed in the program fall into two general categories:

1. Offsite projects *included* in the 2045 CAP’s measures and actions.
2. Offsite projects *not included* in the 2045 CAP’s measures and actions.

Offsite Projects Included in the 2045 CAP

This category represents projects (and the GHG emissions reductions they create) that *are* already included in the 2045 CAP’s measures and actions. An allowable offsite project could involve, for example, accelerating measures, actions, and/or programs that are already identified in the 2045 CAP by providing additional funding to that program. Such projects would not add new programs or actions not already included in the 2045 CAP; they would expand upon and/or accelerate these programs and actions. Example projects are discussed below.

Offsite Projects Not Included in the 2045 CAP

This category represents projects (and the GHG emissions reductions they create) that are *not* already included in the 2045 CAP’s measures and actions. An allowable offsite project could involve, for example, creating or funding programs for implementing new technologies (e.g., zero-emission construction equipment) or implementing new emissions reduction measures or actions not considered in the 2045 CAP. Example projects are discussed below.

Offsite Projects Not Eligible

Offsite projects that are implementing planned 2045 CAP measures and actions on the 2045 CAP’s identified timeline are not eligible for the Offsite Program. Additionally, an offsite project activity that would be mandated by any current or future ordinance (such as a future ZNE ordinance for new buildings) cannot be used in the Offsite Program.

Carbon offset credits are not permitted to be used as offsite projects. In other words, projects that generate carbon offset credits to be traded on a voluntary market registry are not permitted to be used in this program.

Location

All offsite projects must be located within the jurisdictional boundaries of unincorporated Los Angeles County. Therefore, emissions reductions achieved by such offsite projects will be accounted for in future GHG inventory updates and will contribute toward the emissions reduction targets, which are based on the jurisdictional boundaries of unincorporated Los Angeles County. See 2045 CAP Appendix A for a discussion of the inventory and forecast boundaries.

Offsite projects shall be in the following locations, in order of priority, to the extent available: (1) Within the neighborhood surrounding the project site; (2) within the greater surrounding

²⁶ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

community (i.e., town); (3) within the same Planning Area; and (4) in other Planning Areas, but within unincorporated Los Angeles County.

Standards

All offsite projects must achieve **six specific standards** to ensure that the GHG reductions produced by offsite projects are environmentally sound; namely that the GHG reductions be real, permanent, quantifiable, verifiable, enforceable, and additional, defined as follows:

- **Real** means that the offsite project's GHG reductions are the direct result of complete emissions accounting. In other words, *real* means that GHG reductions or GHG enhancements result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offsite project boundary and account for uncertainty.²⁷
- **Permanent** means either that GHG reductions and GHG removal enhancements are not reversible, or that when GHG reductions and GHG removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG emissions reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years.
- **Quantifiable** means the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to an offsite project's baseline in a reliable and replicable manner for all GHG emissions sources, GHG sinks, or GHG reservoirs included within the offsite project boundary, while accounting for uncertainty. GHG emissions reductions from an activity must be rigorously quantified, and such GHG reductions would only be permitted in an amount that corresponds to the GHG emissions that have been quantified. GHG emissions accounting must be accurate and adhere to standardized quantification methodologies, which are discussed further below.
- **Verifiable** means that an offsite project's assertion of GHG emissions reductions is well documented and transparent, such that it lends itself to an objective review by an accredited verification body. The forthcoming Offsite Program itself may require third-party verification.²⁸
- **Enforceable** means the authority of the County to hold a particular party responsible to take appropriate action if any of the provisions of the Offsite Program are violated.
- **Additional** means that the offsite project is not otherwise required by law, regulation, or legally binding mandate, and none of the offsite project's GHG emissions reductions would otherwise occur. In other words, an offsite project activity is additional if it can be demonstrated that the activity would result in emissions reductions or removals exceeding what would be achieved in the absence of the incentive provided by the proposed project and the ~~2045 CAP Checklist~~2045 CAP CEQA Streamlining Checklist. Additionality is an

²⁷ In general, uncertainty should be accounted for by using conservative assumptions and/or parameter values that tend to underestimate, rather than overestimate, total GHG emissions reductions.

²⁸ Generally, third-party verification includes a review of all documentation, monitoring data, and procedures used to estimate GHG reductions, and culminate in the verification body's issuance of a report and statement that identifies the quantity of GHG reductions that can be issued to the offsite project. As part of the report and statement, the independent third party verifies that the offsite project has adhered to the pertinent protocol or methodology, to confirm that the offsite project's GHG reductions are real, permanent, quantifiable, enforceable, and additional.

important characteristic the Offsite Program because it indicates that the GHG reductions represent a net environmental benefit and a real reduction of GHG emissions and can thus be used to offset a project's new GHG emissions.

Proposed Process

If an applicant selects to use the Offsite Program as an alternative GHG emissions reduction measure beyond those described in Table F-1, a specific process must be followed. The process will consider the following topics, which are subject to modification by the County in the forthcoming Offsite Program.

Quantification: Project applicants shall provide evidence to the County showing that the offsite project(s) proposed achieve the amount of GHG emissions reductions required. Examples of such evidence include applicable methodologies associated with the GHG emissions reductions, quantification calculations, and supporting documentation.

Standards: Project applicants must demonstrate, with substantial evidence, that all six of the offsite project standards are met: *real, permanent, quantifiable, verifiable, enforceable, and additional*.

Enforcement: Project applicants shall obtain all necessary permits and approvals for implementation of the offsite project implementation and such materials shall be submitted to the County for review and approval before project approval.

Timing: Project applicants shall submit documentation to the County identifying the quantity of GHG emissions reductions required by the offsite project over a specific time frame to be identified in the Offsite Program (e.g., before project approval or permit issuance, over the course of buildout of the project).

Monitoring: Project applicants shall submit regular reports documenting the offsite project's achieved GHG emissions reductions over a specified time period (such as the previous or current calendar year).

Example Offsite Projects

- **Local building electrification programs:** Programs that target existing residential and commercial buildings in the project's vicinity for electrification, provided that such electrification actions are not already required by law or regulation, County building performance standards, or reach code requirements. For example, replacing a natural gas-fired heating, ventilation, and air conditioning system with an electric heat pump or replacing a gas stove with an induction cooktop.
- **Off-site EV chargers:** Programs that install EV charging stations, provided that such installations are not already required by law or regulation, or County reach code requirements and the forthcoming Zero Emission Vehicle Master Plan (Measure T6). For example, funding or directly installing EV chargers in multi-unit dwellings in disadvantaged or low-income areas, public locations (schools, libraries, city centers), workplaces, and key destinations (e.g., parks, recreation areas, sports arenas).
- **Local building solar programs:** Programs that target existing residential and commercial buildings in the project's vicinity for rooftop solar photovoltaic installations, provided that such installations are not already required by law or regulation, County building

performance standards, or reach code requirements. For example, funding or directly installing rooftop solar installations or community solar systems.

- **Energy storage and microgrids:** Funding for or direct implementation of a microgrid to balance generation from non-controllable renewable power sources, such as solar, with distributed, controllable generation, such as natural gas–fueled combustion turbines; or a strategically deployed battery storage system to make the grid more flexible by unlocking renewable energy and replacing fossil fuel–generated electricity, especially during peak hours. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.
- **Truck and bus electrification programs:** Funding for the purchase of zero-emission vehicle trucks and buses to replace existing fossil fuel–powered trucks and buses; coordination with local transportation agencies and school districts and replacement of diesel- or gasoline-fueled buses with less-polluting technologies such as compressed natural gas, electric, hybrid-electric, fuel cell, or other commercially available technologies. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.
- **Hydrogen fuel:** Funding for or programs that provide renewable hydrogen fueling stations to nearby truck fleets, such as at logistics warehouses, or other uses of renewable hydrogen fuel as a replacement for fossil fuels. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.

Environmental Impacts Pursuant to CEQA

Project applicants' CEQA documents would be required to disclose the impacts of any offsite projects that are proposed for funding or implementation. The Final PEIR for the 2045 CAP evaluates the potential environmental impacts of the 2045 CAP's measures and actions. For any offsite projects implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the 2045 CAP's measures and actions, the resulting environmental impacts would be expected to be similar to those disclosed in the Final PEIR. Project applicants' CEQA documents may rely on the Final PEIR impact analysis for an offsite project similar to those contemplated by the 2045 CAP, unless a specific offsite project causes a new or substantially more severe impact for that project type not addressed in the Final PEIR.

Next Steps and Additional Guidance

This section represents a *framework* for the Offsite Program. The actual Offsite Program will be developed separately after the 2045 CAP is formally adopted and the Final PEIR is certified. Once the formal Offsite Program is developed, project applicants may use it to demonstrate compliance with the CEQA streamlining requirements as indicated above.

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APPENDIX F

2045 Climate Action Plan CEQA Streamlining Checklist

Purpose

The 2045 Climate Action Plan CEQA Streamlining Checklist (referred to herein as the *2045 CAP CEQA Streamlining Checklist*) can be used to provide a voluntary streamlined review process for analyzing the impacts of GHG emissions resulting from proposed discretionary projects that are subject to CEQA.

The 2045 CAP CEQA Streamlining Checklist may be updated administratively to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or local, state, or federal law.

Appendix F Organization

This appendix is organized into the following four sections:

Section F.1: Background

This section describes the rationale for the checklist and explains how it provides the mechanism for projects that wish to streamline environmental review of their GHG impacts using the 2045 CAP's PEIR pursuant to CEQA Guidelines Section 15183.5(b).

Section F.2: Checklist Instructions

This section includes the submittal requirements for applicants, the applicability of the 2045 CAP CEQA Streamlining Checklist, and instructions for completing the 2045 CAP CEQA Streamlining Checklist.

Section F.3: 2045 CAP CEQA Streamlining Checklist

This section includes the 2045 CAP CEQA Streamlining Checklist itself along with a table for reporting and documenting alternative project emissions reduction measures and additional GHG reductions.

Section F.4: Offsite GHG Reduction Program Framework

This section includes a framework for the County's forthcoming Offsite GHG Reduction Program. This program will be available for project applicants to use as an alternative GHG reduction measure to the CEQA streamlining requirements, by allowing applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County.

F.1 Background

2045 CAP CEQA Streamlining ChecklistThe growth projections outlined in the General Plan's Land Use and Housing Elements were used in the 2045 CAP to estimate unincorporated Los Angeles County's future emissions. Therefore, projects can use the 2045 CAP CEQA Streamlining Checklist if they are consistent with the Land Use Element. This consistency allows a project to streamline its analysis of GHG impacts by using the existing programmatic environmental review contained in the certified Final PEIR for the 2045 CAP. In doing so, pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to climate change resulting from the project's GHG emissions may be determined not to be cumulatively considerable. This approach is consistent with the recommendations of the California Air Resources Board (CARB) in the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) that "CEQA-qualified CAPs" can allow eligible

projects to streamline their determination of significance for GHG emissions.¹ It is also consistent with the Association of Environmental Professionals Climate Change Committee’s best practices for tiering from qualified GHG reduction plans that demonstrate substantial progress toward meeting the next milestone statewide planning reduction target (i.e., a 40 percent reduction below 1990 levels by 2030 as set forth by SB 32).²

This 2045 CAP CEQA Streamlining Checklist provides a mechanism for projects to specifically identify “those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project” per Section 15183.5(b)(2) of the CEQA Guidelines.

GHG emissions associated with the construction of projects, including demolition and decommissioning activities, are generally orders of magnitude lower than operational GHG emissions. This is primarily because construction emissions are typically short in duration compared to the project’s overall lifetime. Typically, construction GHG emissions are amortized over 30 years and added to a project’s 30-year lifetime emissions total; after this amortization, construction GHG emissions usually represent a small fraction of a project’s total annual emissions. It is generally difficult to enforce low-emission construction equipment because of the limited availability of zero-emission and near-zero-emission construction equipment, along with contracting requirements. In addition, the 2045 CAP quantifies GHG emissions from off-road construction activity at the unincorporated Los Angeles County level; these emissions are accounted for in the 2045 CAP’s ability to achieve the 2030, 2035, and 2045 targets.

The 2045 CAP CEQA Streamlining Checklist also requires the use of electric and zero-emission construction equipment during project construction to the maximum extent feasible, to align with Measure T9. Therefore, construction emissions can be assessed qualitatively as part of related CEQA GHG emissions analysis. However, some projects may have long construction periods or entail substantial excavation and grading that could result in construction-related GHG emissions that may be considered significant. Thus, the County retains the discretion on a project-by-project basis to consider whether a project’s construction-related GHG emissions could be cumulatively considerable and require a more detailed quantitative CEQA analysis and mitigation of GHG emissions.

Projects that elect not to use the 2045 CAP CEQA Streamlining Checklist for CEQA streamlining must prepare a comprehensive project-specific analysis of GHG emissions. The analysis must quantify existing and projected GHG emissions and it is strongly encouraged that the project incorporate all CEQA streamlining requirements in this 2045 CAP CEQA Streamlining Checklist, although this is not required. The 2045 CAP CEQA Streamlining Checklist may be updated to incorporate new GHG emissions reduction techniques or to comply with later amendments to the 2045 CAP or to local, state, or federal law.

2045 CAP Appendix B, *Emissions Forecasting and Reduction Methods*, provides the quantitative basis for CEQA streamlining requirements. This document demonstrates how, based on substantial

¹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

² Association of Environmental Professionals. 2016. *Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. October 18, 2016. Available: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf.

evidence,³ implementing these CEQA streamlining requirements on a project-by-project basis will collectively achieve the 2045 CAP's target emissions level for projects by 2030 and 2035, as required by CEQA Guidelines Section 15183.5(b)(1)(D).

Alignment with the 2022 Scoping Plan

Appendix D of CARB's 2022 Scoping Plan provides guidance for local governments and lead agencies for how local climate action planning can support the State of California's climate goals.⁴ CARB reiterates that a CAP that has been adopted through the CEQA review process and meets the criteria specified in CEQA Guidelines Section 15183.5(b) for a "plan for the reduction of greenhouse gas emissions"—such as the 2045 CAP—is a "CEQA-qualified CAP" that can allow eligible projects to streamline their determination of significance for GHG emissions.

Streamlining CEQA GHG analysis for future projects by demonstrating consistency with a CAP involves evaluating whether a project demonstrates consistency with "all applicable GHG reduction measures identified in the CAP." CARB notes that such consistency can be determined by using CAP compliance checklists, which can be "included as part of the proposed project's CEQA analysis documenting the project's consistency with the CEQA-qualified CAP."

The 2045 CAP CEQA Streamlining Checklist is therefore consistent with CARB's guidance in the 2022 Scoping Plan as a valid way for discretionary projects to streamline their analysis of GHG impacts.

Recommended Project Attributes for Residential and Mixed-Use Projects

Appendix D of the 2022 Scoping Plan includes a list of "key project attributes" for residential and mixed-use projects. CARB states that if a project incorporates these attributes, the project would "accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals" and would be "**clearly** consistent with the State's climate goals." Further, such projects would be "consistent with the Scoping Plan or other plans, policies, or regulations adopted for the purposes of reducing GHGs" and that therefore, "the GHG emissions associated with such projects may result in a less-than-significant GHG impact under CEQA."

Alternative Project Emissions Reduction Measures and Offsite GHG Reduction Programs

As discussed below under *Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions*, project applicants may employ alternative GHG emissions reduction measures to serve as replacements for any CEQA streamlining requirement not feasible to implement at the project-level. Such replacement measures must meet specific criteria and be

³ CEQA Guidelines Section 15384 defines *substantial evidence* as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

⁴ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, "Local Actions." November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

supported by substantial evidence that the measure would achieve the same or greater level of GHG emissions reductions as the CEQA streamlining requirement that it replaces.

CARB supports the idea of “off-site GHG mitigation” in Appendix D of the 2022 Scoping Plan for projects that have maxed out their on-site GHG reduction actions: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement **local**, off-site direct GHG reduction strategies.”⁵

As discussed further below, Action ES5.4 of the 2045 CAP would establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment.

CARB cautions that such off-site measures must directly “offset” a project’s GHG emissions and must not be unrelated off-site measures that would occur independently of the proposed project. Lead agencies and project applicants must provide substantial evidence that a specific off-site mitigation measure is not otherwise required by law or regulation and would not have occurred “**but for** the requirement to mitigate a project’s GHG impacts.” CARB goes on to state the following:

There has been concern that GHG emission reductions from off-site GHG mitigation measures... may double count GHG emission reductions from California’s Cap-and-Trade program. However, off-site mitigation measures, such as EV [electric vehicle] charging or building efficiency retrofits, are viable options for mitigation under CEQA and would not be double counted, provided they are not otherwise required by law or regulation and would not have happened but for the mitigation requirements of the project. If the mitigation would have been implemented or required through another statute, regulation, existing local program, or requirement other than the project it is mitigating, then the project being mitigated may not also claim credit for the reductions.

F.2 Checklist Instructions

2045 CAP CEQA Streamlining Checklist Submittal Requirements

The 2045 CAP CEQA Streamlining Checklist shall accompany the project application for all projects and plans proposed within unincorporated Los Angeles County’s land use authority that are subject to CEQA. The 2045 CAP CEQA Streamlining Checklist is designed to assist in identifying the GHG emissions reduction actions and other applicable sustainability-focused requirements specific to a proposed project. However, it may be necessary to supplement the completed 2045 CAP CEQA Streamlining Checklist with supporting materials, calculations, or certifications to demonstrate compliance with all the applicable CEQA streamlining requirements in the 2045 CAP CEQA Streamlining Checklist. The 2045 CAP CEQA Streamlining Checklist shall be included in the respective project conditions of approval.

⁵ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

2045 CAP CEQA Streamlining Checklist Applicability

The 2045 CAP CEQA Streamlining Checklist allows for streamlined project-specific CEQA GHG analysis. The 2045 CAP CEQA Streamlining Checklist is only required if a project applicant wants to use CEQA streamlining for GHG impacts; it is not required if a project-level environmental analysis of GHG impacts is conducted. As such, the 2045 CAP CEQA Streamlining Checklist is voluntary. The 2045 CAP CEQA Streamlining Checklist cannot be used for projects requiring a General Plan amendment associated with land use density increases. Ministerial projects and projects that otherwise are exempt from CEQA are deemed to be consistent with the 2045 CAP, and no further review is necessary, with the exception of the residential infill categorical exemption (CEQA Guidelines Section 15195), for which projects are required to demonstrate consistency with the 2045 CAP through the 2045 CAP CEQA Streamlining Checklist if the applicant elects to use CEQA streamlining for GHG impacts. All projects using the 2045 CAP CEQA Streamlining Checklist for CEQA streamlining must demonstrate consistency with the General Plan growth projections. **If a project is not consistent with the General Plan growth projections, then the 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining.**

2045 CAP CEQA Streamlining Checklist Instructions

Project applicants shall complete the following **four steps** to demonstrate compliance with the 2045 CAP for a proposed project.

Step 1. Demonstrate consistency with the General Plan growth projections (**Table F-1**).

Step 2. Determine whether the project screens out of certain CEQA streamlining requirements (Table F-1).

Step 3. Complete the 2045 CAP CEQA Streamlining Checklist (Table F-1).

Step 4. Identify alternative project emissions reduction measures and additional GHG reductions (**Table F-2**), as needed.

All projects must complete **Step 1: Demonstrate Consistency with the General Plan Growth Projections** and **Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements**. Projects that do not meet the screening criteria must complete **Step 3: Complete the 2045 CAP CEQA Streamlining Requirements**. Projects that cannot meet all CEQA streamlining requirements shown in Table F-1 must also complete **Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions** (Table F-2) to describe alternative GHG emissions reduction measures that serve as replacements to any CEQA streamlining requirements not met by the project.

The following process, illustrated in **Figure F-1**, explains how to demonstrate consistency of a project with the 2045 CAP's GHG emissions reduction measures and actions, and thereby streamline the project's GHG impacts analysis by tiering from the certified Final PEIR for the 2045 CAP.

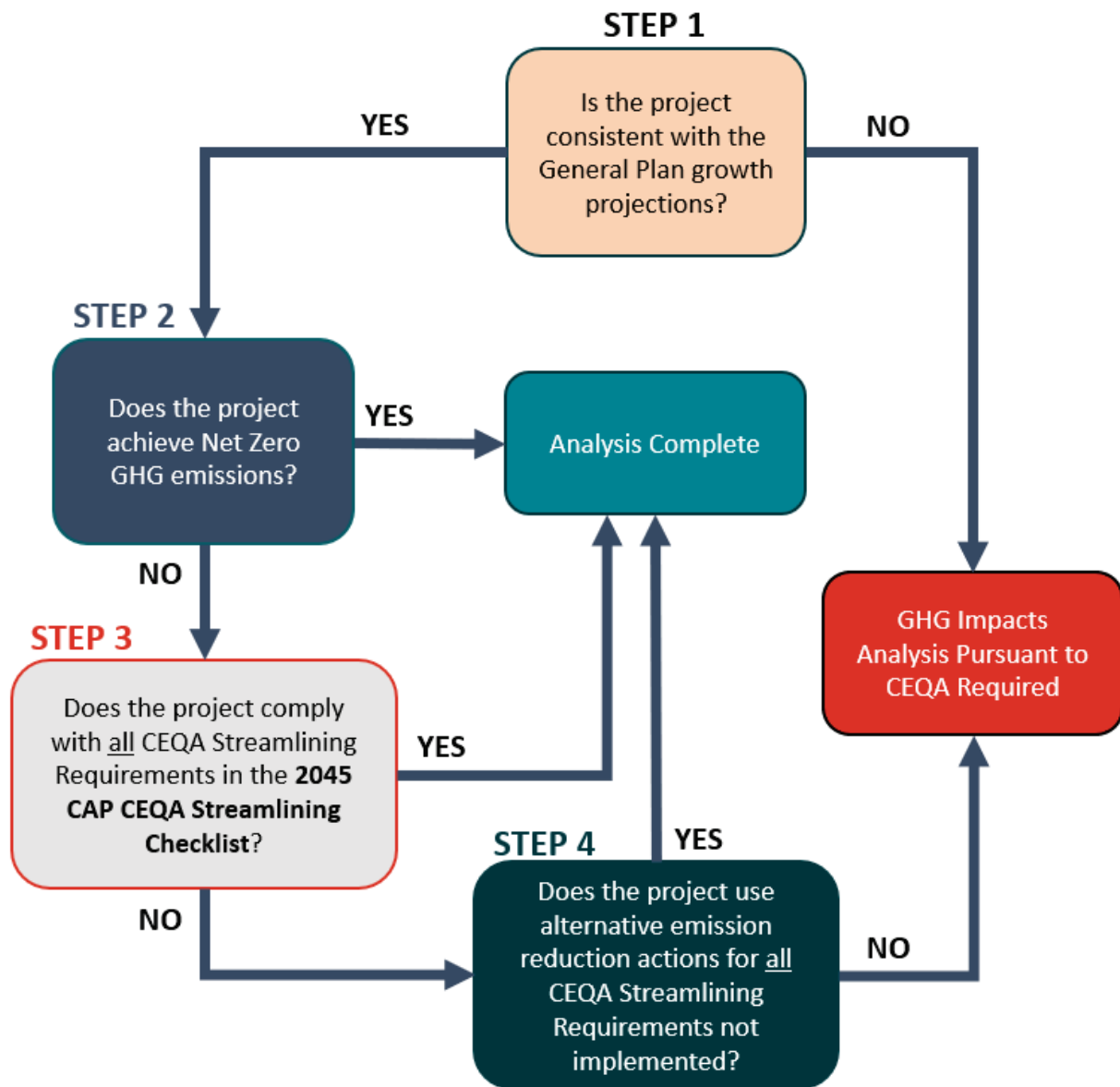


Figure F-1: Determining Consistency with the 2045 CAP for CEQA Streamlining

Step 1: Demonstrate Consistency with the General Plan Growth Projections

All projects must demonstrate consistency with the General Plan growth projections. **If a project is not consistent with the General Plan growth projections, then the 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining.** Complete the *General Plan Consistency* section of **Table F-1, General Plan and CEQA Streamlining Requirement Checklist**, below.

The options for determining General Plan consistency (included in Table F-1) are as follows:

- Is the proposed project consistent with the General Plan growth projections? If yes, move to **Step 2** below. If no, the proposed project may not streamline its GHG impacts analysis

by using the 2045 CAP's EIR, and instead must prepare a comprehensive project-specific analysis of GHG emissions and impacts pursuant to CEQA. Such projects are also encouraged to incorporate all the CEQA streamlining requirements in the 2045 CAP CEQA Streamlining Checklist.

Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements

Certain projects may screen out of compliance with certain CEQA streamlining requirements contained in Table F-1 if such projects meet specific criteria. These criteria are designed to ensure high efficiency and low GHG emissions and describe projects that would generally comply with the 2045 CAP.

2045 CAP CEQA Streamlining Checklist Screening Criteria: Projects may skip the *Demonstrate Compliance with the CEQA Streamlining Requirements* section of Table F-1 below if they meet the following criteria:

- If the project would achieve **net zero GHG emissions** the project is considered to comply with the 2045 CAP and the analysis is complete.

Net zero GHG emissions means that the project's GHG emissions from construction and operational activities occurring at full buildout would result in zero total GHG emissions on an annual basis. In other words, all GHGs emitted the atmosphere during construction and operation by a project are balanced completely by GHG sequestration and removal over each calendar year period. Construction GHG emissions should be amortized for the project (typically 30 or 40 years) and added to the annual full buildout operational emissions to determine total annual emissions. Net zero GHG emissions for a project does not consider GHG emissions from existing conditions or existing uses at the project site. For example, if a project emits 1,500 MTCO_{2e} per year for both construction and operations but includes the planting of enough new trees to sequester 1,500 MTCO_{2e} per year, the project would achieve net zero GHG emissions.

To demonstrate that the project achieves net zero GHG emissions, the applicant must submit a comprehensive quantitative project-specific analysis of all GHG emissions, sinks, and removals from construction and full buildout operations, consistent with CEQA guidelines and standard practice for modeling GHG emissions for projects. If the project meets this criterion, the project does not need to complete **Table F-1** below and the analysis is complete.

Transportation Screening Criteria: Projects may skip CEQA streamlining requirements #3, #4, #5, #11, and #12 of the *Demonstrate Compliance with the CEQA Streamlining Requirements* section of Table F-1 below if they meet the following criteria (based on the 2020 Los Angeles County Department of Public Works Transportation Impact Analysis Guidelines):⁶

⁶ Los Angeles County Department of Public Works. 2020. *Transportation Impact Analysis Guidelines*. July 2020. Available: <https://dpw.lacounty.gov/traffic/trafficreportmsg.cfm>. Accessed February 2022.

1. For development projects:⁷
 - a. If the project does not have a retail component, and the project generates a net increase of less than 110 daily vehicle trips,⁸ then it screens out.
 - b. If the project has a retail component, and it contains retail uses that do not exceed 50,000 square feet of gross floor area,⁹ then it screens out.
 - c. If the project has a residential component, and 100 percent of the units, excluding manager's units, are set aside for lower income households,¹⁰ then it screens out.
 - d. If the project is located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor¹¹ and meets all of the following criteria, then it screens out:
 - i. Has a Floor Area Ratio greater than 0.75.¹²
 - ii. Provides less parking than required by the Los Angeles County Code.¹³
 - iii. Is consistent with the Southern California Associated of Governments' Regional Transportation Plan/Sustainable Communities Strategy.¹⁴
 - iv. Does not replace residential units set aside for lower income households with a smaller number of market-rate residential units.
2. For transportation projects:¹⁵
 - a. If the project would not include the addition of through traffic lanes on existing or new highways, including general-purpose lanes, high-occupancy vehicle lanes, peak-period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than 1 mile in length designed to improve roadway safety),¹⁶ then it screens out.
 - b. If the project would reduce roadway capacity and VMT,¹⁷ then it screens out.

If the project meets the above criteria, it may skip certain transportation portions of the 2045 CAP CEQA Streamlining Checklist (see Table F-1 for details).

⁷ The Transportation Impact Analysis (TIA) Guidelines provide a list of development project types, which include residential, office, manufacturing, institutional, and retail project types. For a complete list, see page 11 of the TIA Guidelines.

⁸ As referenced in: Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

⁹ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁰ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹¹ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹² Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹³ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁴ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

¹⁵ The TIA Guidelines describe transportation projects as projects that would increase vehicular/roadway capacity.

¹⁶ As noted above, the TIA Guidelines describe transportation projects as projects that would increase vehicular/roadway capacity.

¹⁷ A list of transportation projects that are not likely to lead to a substantial or measurable increase in vehicle miles travelled are included in the County's TIA Guidelines, pp. 17–19.

Step 3: Demonstrate Compliance with the 2045 CAP CEQA Streamlining Requirements

Table F-1 identifies the CEQA streamlining requirements for projects. Projects must demonstrate compliance with the 2045 CAP CEQA streamlining requirements listed in Table F-1 or document why the requirements are not applicable or are infeasible.¹⁸ The corresponding 2045 CAP measures and actions are indicated in the table to provide additional context. The full text of the 2045 CAP measures and actions is provided in the 2045 CAP (see Chapter 3 and Appendix E).

All applicants shall complete the following steps for the *Transportation, Building Energy and Water, Waste, and Agriculture, Forestry, and Other Land Use (AFOLU)* sections of **Table F-1** below (unless the project meets the transportation screening criteria identified in Step 1 above, in which case the project may skip completion of certain sections of the *Transportation* section of Table F-1):

- Step 3a.** Review the CEQA streamlining requirements described in the column titled “2045 CAP Streamlining Requirement.”
- Step 3b.** Use the check boxes in the column titled “Project Complies” to indicate whether the “Project Complies,” the requirement is “Not Applicable,” or the “Project Does Not Comply and Alternative Measure Proposed.”
- Step 3c.** Provide a qualitative analysis of the proposed project’s compliance with the CEQA streamlining requirements in the column titled “Description of Project Measure(s)/Documentation of Compliance.” This will be the basis for the CEQA analysis to demonstrate compliance with the 2045 CAP, and by extension, with SB 32. The qualitative analysis should provide:
 - i. A description of which streamlining requirements are included as part of the proposed project; or
 - ii. A description of why the streamlining requirement is not applicable to the proposed project; or
 - iii. A description of why the streamlining requirements are infeasible. If applicants select “Project Does Not Comply” or “Alternative Measure Proposed,” they must complete Table F-2 to document what alternative project measures will be implemented to achieve a similar level of GHG reduction and how those GHG emissions reduction estimates were calculated.
- Step 3d.** Provide specific project design criteria and/or reporting metrics to support the proposed project’s compliance with each CEQA streamlining requirement. Specific information is requested for each respective item in the 2045 CAP CEQA Streamlining Checklist.

Regarding item #2 above, the project applicant can only select “Not Applicable” if the requirement is not relevant to the project. The project applicant should only select “Project Does Not Comply and Alternative Measure Proposed” if it is infeasible, as defined by the CEQA Guidelines, for the project to comply with the checklist requirement. Sufficient documentation of such infeasibility must be supplied to the County to support such a determination. The County retains ultimate

¹⁸ Please note that the CEQA streamlining requirements are not mitigation measures as defined by CEQA.

discretion for determining the feasibility of the checklist requirement for the proposed project. Further, if “Project Does Not Comply and Alternative Measure Proposed” is selected for a specific checklist requirement, then the project applicant **must** identify an alternative measure to achieve the same or greater level of GHG emissions reduction as the CEQA streamlining requirement with which the project does not comply.

If the project applicant cannot fully complete these requirements, then the 2045 CAP CEQA Streamlining Checklist may not be used for CEQA streamlining of GHG emissions impacts. See the *Projects That Are Not Eligible for CEQA Streamlining* section for additional instructions.

The 2045 CAP CEQA streamlining requirements are listed as either “Tier 1” or “Tier 2.” These two levels are defined as follows:

Tier 1: Required for all discretionary projects in order to use CEQA streamlining for GHG impacts.

Tier 2: Encouraged for all discretionary projects. Although these measures are not required, projects are strongly encouraged to implement them. In Table F.1 below, these voluntary items are colored with gray shading.

In general, Tier 1 requirements were quantified in the 2045 CAP for GHG emissions reductions needed to achieve the 2030, 2035, and 2045 emissions reduction targets. Because these measures were quantified, they would be required for the 2045 CAP to achieve its full emissions reduction potential. Some Tier 1 measures were not quantified, but they either are required through other code or ordinance (such as compliance with the Transportation Demand Management Ordinance) or are deemed essential for the overall success of the 2045 CAP. Tier 2 requirements were identified as supporting actions but are not deemed essential for the overall success of the 2045 CAP.

Some Tier 1 and Tier 2 requirements point to future County regulations or ordinances that have not yet been developed, such as the forthcoming building decarbonization ordinance. In these instances, projects using the Checklist must only comply with currently adopted ordinances and requirements at the time of project approval.

The 2045 CAP CEQA Streamlining Checklist includes the following Tier 1 and Tier 2 requirements, organized by strategy area:

Energy Supply

1. Tier 1: Sunset Oil and Gas Operations
2. Tier 1: Utilize 100% Zero-Carbon Electricity

Transportation

3. Meets Transportation Screening Criteria
4. Tier 1: Increase Density Near High-Quality Transit Areas
5. Tier 1: Incorporate Bicycle and Pedestrian Infrastructure
6. Tier 1: Comply with the County Transportation Demand Management (TDM) Ordinance
7. Tier 1: Comply with the County’s Transportation Impact Guidelines

8. Tier 1: Incorporate Electric Vehicle Charging Infrastructure
9. Tier 1: Decarbonize Trucks
10. Tier 1: Incorporate Zero-Emission Technologies for Off-Road Vehicles & Equipment
11. Tier 1: Electrify County Fleet Vehicles (for municipal projects only)
12. Tier 2: Achieve a High Jobs/Housing Balance
13. Tier 2: Encourage Transit, Active Transportation, and Alternative Modes of Transportation
14. Tier 2: Implement Parking Limitations

Building Energy and Water

15. Tier 2: Decarbonize Existing Buildings
16. Tier 2: Decarbonize New Buildings
17. Tier 1: Increase Building Energy Efficiency
18. Tier 1: Implement Water Use Efficiency and Water Conservation
19. Tier 2: Reduce the Life-Cycle Carbon Intensity of Building Materials and Phase Out the Use of High-Global Warming Potential (GWP) Refrigerants
20. Tier 2: Use Energy Storage and Microgrids
21. Tier 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture

Waste

22. Tier 1: Compost Organic Materials
23. Tier 1: Recycle Recyclable Materials
24. Tier 2: Incorporate On-site Composting, Mulching, and/or Anaerobic Digestion

Agriculture, Forestry, and Other Land Use

25. Tier 1: Incorporate Tree Plantings and Expand Urban Forest Cover
26. Tier 2: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands
27. Tier 2: Implement Regenerative Agricultural Practices

2045 CAP Appendix B, *Emissions Forecasting and Reduction Methods*, provides the quantitative basis for the CEQA streamlining requirements.

Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions

Projects that propose alternative GHG emissions reduction measures to those identified in Table F-1 or propose to include additional GHG emissions reduction measures beyond those described in Table F-1 shall provide a summary explanation of the proposed measures and demonstrate GHG reductions achievable through the proposed measures.¹⁹ Documentation for these alternative or additional project measures shall be documented in **Table F-2, Applicant Proposed**

¹⁹ Please note that the alternative GHG emissions reduction measures are not mitigation measures as defined by CEQA.

Alternative Project Emissions Reduction Measures. Any applicants who select “Project Does Not Comply and Alternative Measure Proposed” in Table F-1 must complete the following steps for Table F-2.

- Step 4a.** In the column titled “Description of Alternative Measure,” provide a qualitative description of what measure will be implemented, why it is proposed, and how it will reduce GHG emissions.
- Step 4b.** In the column titled “Description of GHG Reduction Estimate,” demonstrate how the alternative project measure would achieve the same or greater level of GHG emissions reductions as the CEQA streamlining requirement that it replaces. Documentation and calculation files must be attached separately.

An example alternative project measure may be installing additional EV charging infrastructure beyond what is required by the California Green Building Standards Code (CALGreen Code), County ordinance, or requirements in the forthcoming Zero Emission Vehicle Master Plan, to support zero-emission vehicles beyond what is specified in the 2045 CAP’s performance objectives for Measure T6 (Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales). The applicant would then demonstrate how this would achieve the same or greater level of GHG emissions reductions as the checklist requirement for which it serves as an alternative.

Carbon offset credits are not permitted to be used as alternative project emissions reduction measures.

Guidance for Quantifying GHG Reductions from Alternative Measures

In order to use alternative GHG emissions reduction measures to replace a CEQA streamlining requirement in Table F-1 below, project applicants must use the three-step process outlined below to quantitatively demonstrate how the alternative project measure would achieve the same or greater level of GHG emissions reductions as the CEQA streamlining requirement (or requirements) that it replaces.

Project applicants should follow these three steps:

- Step 4c.** Prepare a detailed quantified GHG emissions inventory for the project taking into consideration all GHG-reducing project features and 2045 CAP CEQA Streamlining Checklist items included as part of the project (including proposed mitigation measures, project design features, strategies being implemented, and other County requirements).

Project applicants shall prepare a detailed quantified GHG emissions inventory for the project taking into consideration all GHG-reducing project features and CEQA streamlining requirements included as part of the project (including proposed mitigation measures, project design features, strategies being implemented, and other County requirements), **except** for the alternative GHG emissions reduction measures proposed by the applicant to replace any Tier 1 CEQA streamlining requirement (as described in Step 4e). Applicants should use CalEEMod, CARB’s Emission FACTor

model (EMFAC),²⁰ the CAPCOA Handbook, and other commonly accepted GHG modeling methods and protocols.

- Step 4d.** For each Tier 1 CEQA streamlining requirement that the project will not meet, include a quantified calculation of the additional GHG emission reductions that would have occurred had the project implemented the Tier 1 Checklist streamlining requirement.

Project applicants shall, for all Tier 1 CEQA streamlining requirements that the project will not meet, a quantified calculation of the additional GHG emission reductions that would have occurred had the project implemented those Tier 1 CEQA streamlining requirements. In order to do this, applicants shall prepare a project model run assuming the implementation of all Tier 1 CEQA streamlining requirement that the project will not meet. Applicants should then compare the project's GHG emissions from this scenario with the project's GHG emissions from Step 4c above. The difference in GHG emissions between the two scenarios represents the GHG emission reductions that would have occurred had the project implemented all Tier 1 CEQA streamlining requirements; this is the amount of GHG emissions required to be reduced in total by the alternative GHG emissions reduction measures.

- Step 4e.** Propose an alternative measure (or set of measures) and demonstrate quantitatively that the alternative measures would achieve a GHG emission reduction equivalent to the GHG emission reduction that would have resulted from complying with the Tier 1 CEQA streamlining requirement.

Project applicants shall provide a quantified measure or set of measures that closes the gap between the two scenarios as quantified in Step 4c and Step 4d. In order to do this, applicants shall prepare a project model similar to Step 4c but include all alternative GHG emissions reduction measures proposed by the applicant. The resulting GHG emissions from this model run must equal or be less than the GHG emissions resulting from the project model run in Step 4d above which assumes the implementation of all Tier 1 CEQA streamlining requirements. In other words, the GHG emission reductions achieved by the alternative measures must meet or exceed the GHG emission reductions achieved by the Tier 1 CEQA streamlining requirements.

Project applicants shall submit documentation to the City demonstrating all three steps above. This can include model run inputs and/or outputs, excel calculation files, or other documentation of the emission calculations.

Potential alternative GHG emissions reduction measures to be considered include, but are not be limited to, measures recommended in the South Coast Air Quality Management District's latest CEQA Air Quality Guidelines, the California Air Resources Board Scoping Plan (December 2022, as may be revised), the California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (December 2021, as may be revised), the CAPCOA California Emissions Estimator Model (CalEEMod), the California Attorney General's *Mitigation for*

²⁰ California Air Resources Board. 2022. EMFAC2021 Model. Version v1.0.2. Available: <https://arb.ca.gov/emfac/>. Accessed June 2023.

Greenhouse Gas Emissions guidance, and Reference Guides on Leadership in Energy and Environmental Design (LEED) published by the U.S. Green Building Council.

As for any project design features or mitigation measures implemented via the County's project approval and CEQA review process, the project applicant shall implement all alternative GHG emissions reduction measures proposed. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits and implemented during construction. For operational GHG reduction measures to be incorporated into the project, the measures shall be implemented on ongoing basis.

Projects That Are Not Eligible for CEQA Streamlining

In some cases, a project may not be able to comply with all of the 2045 CAP CEQA streamlining requirements. This may be because the project is inconsistent with the General Plan's growth projections as described in Step 1. Or a project may not be able to feasibly incorporate all CEQA streamlining requirements as identified in Table F-1 and discussed in Step 3; such a project may further be unable to adequately identify alternative project measures to achieve a similar level of GHG reduction to each CEQA streamlining requirement which a project cannot comply with. Such projects are not eligible to streamline environmental review of their GHG impacts using the 2045 CAP's PEIR and may be required to prepare a comprehensive project-specific analysis of GHG emissions pursuant to CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist).

A comprehensive project-specific analysis of GHG emissions must be prepared for any project that elects not to use the Checklist for CEQA streamlining by completing Table F-1 and (if applicable) Table F-2. Such an analysis shall quantify existing and projected GHG emissions and evaluate potential impacts pursuant to the CEQA Guidelines (including the CEQA Guidelines Appendix G Environmental Checklist). It is strongly encouraged that the project incorporate all the CEQA streamlining requirements in the 2045 CAP CEQA Streamlining Checklist, though this is not required.

F.3 2045 CAP CEQA Streamlining Checklist

Table F-1, *General Plan and 2045 CAP CEQA Streamlining Checklist*, allows the applicant to demonstrate compliance with the 2045 CAP's GHG emissions reduction measures and actions. This table addresses **Step 1: Demonstrate Consistency with the General Plan Growth Projections**; **Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements**; and **Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements**. This checklist must be completed for all applicable projects electing to streamline their CEQA GHG analysis.

Table F-2, *2045 CAP Greenhouse Gas Emissions Reduction Alternative Measures*, allows the project applicant to document alternative GHG emissions reduction measures used to demonstrate compliance with the Table F-1 CEQA streamlining requirements. This table addresses **Step 4: Identify Alternative Project Emissions Reduction Measures and Additional GHG Reductions**. This checklist is required only for projects that propose to use alternative GHG emissions reduction measures.

Table F-1: General Plan and 2045 CAP CEQA Streamlining Checklist

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|---|--|
| Step 1: Demonstrate Consistency with the General Plan Growth Projections | | |
| <p>1. The Project is Consistent with the General Plan Growth Projections The growth projections included in the General Plan were used in the 2045 CAP to estimate unincorporated Los Angeles County GHG emissions over time. Therefore, projects must be consistent with the General Plan to comply with the CEQA streamlining requirements. To determine a project’s consistency with the General Plan growth projections, please answer the following question and provide an explanation with supporting documentation.</p> <p>Is the proposed project consistent with the existing land use designation of the Land Use Element and the 2021 Housing Element Update?</p> <p>If “Yes,” proceed to Step 2: Determine Whether the Project Screens Out of Certain CEQA Streamlining Requirements below.</p> <p>If “No,” the proposed project may not streamline its GHG impacts analysis by using the 2045 CAP’s EIR and must prepare a comprehensive project-specific analysis of GHG emissions and impacts pursuant to CEQA.</p> | <p><i>Describe how the project is consistent with the General Plan growth projections. Provide additional supporting documentation as an attachment as needed.</i></p> <p><i>OR,</i></p> <p><i>Explain why the project is not consistent with the General Plan growth projections, and whether the project would include a General Plan amendment. If the project includes a General Plan amendment, STOP HERE.</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| Step 2: Determine Whether the Project Screens Out of the CEQA Streamlining Requirements | | |
| <p>Certain projects may screen out of the 2045 CAP CEQA Streamlining Requirements if they meet the following screening criterion.</p> <p>Does the project achieve net zero GHG emissions? The project must conduct a comprehensive project-specific analysis of all GHG emissions, sinks, and removals, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for projects, to demonstrate that the project achieves net zero GHG emissions.</p> <p>If “Yes,” the project would comply with the CEQA streamlining requirements and no additional analysis is needed (no project-specific GHG impact analysis would be required).</p> <p>If “No,” proceed to Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements below.</p> | <p><i>If “Yes,” attach to this checklist the estimated project GHG emissions. Provide supporting calculation files and documentation for this analysis. If the proposed project is determined to result in net zero GHG emissions, STOP HERE.</i></p> <p><i>If “No,” proceed to Step 3 below.</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|--|---|--|
| Step 3: Demonstrate Compliance with the CEQA Streamlining Requirements | | |
| Energy Supply | | |
| <p>1. TIER 1: Sunset Oil and Gas Operations For any project involving the decommissioning, replacement, retrofit, or redesign of infrastructure or facilities associated with the oil and gas industry, including energy generation (i.e., cogen), the project must:</p> <ul style="list-style-type: none"> A) Comply with the Oil Well Ordinance (Title 22). B) Reduce fossil fuel-based emissions by at least 80% compared to existing conditions. C) If the project site includes existing active and abandoned oil wells, examine all wells for fugitive emissions of methane. Reduce such existing emissions by a minimum of 80%. D) To reduce any residual fossil fuel-based emissions generated by the project, incorporate carbon removal technologies including direct air capture and carbon and sequestration, as feasible. <p>Supports 2045 CAP Measures (and Actions): ES1 (ES1.1, ES1.2, ES1.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below).</i> <i>IN ADDITION, provide documentation of the project's ability to reduce fossil fuel-based emissions, including fugitive methane emissions.</i> <i>Provide the number of oil and gas operations/wells closed.</i> <i>Provide documentation of any carbon removal technologies incorporated at the project site.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>2. TIER 1: Utilize 100% Zero-Carbon Electricity The project must utilize 100% zero-carbon electricity on-site. The project must comply with one of the following options:</p> <ul style="list-style-type: none"> A) Install on-site renewable energy systems or participate in a community solar program to supply 100% of the project's estimated energy demand to the maximum extent feasible. B) Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until SCE provides 100% carbon-free electricity for all accounts by default. C) Participate in the Clean Power Alliance at the Clean Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until CPA provides 100% carbon-free electricity for all accounts by default. D) A combination of #1, #2, and #3 above such that 100% of the project's electricity consumption is supplied by zero-GHG emission sources of power generation, whether by utilities or by on-site electricity generation or both. <p>Supports 2045 CAP Measures (and Actions): ES2 (ES2.1, ES2.2), ES3 (ES3.1, ES3.2, ES3.3, ES3.4, ES3.5, ES3.6)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i> <i>IN ADDITION, provide the project's anticipated electricity demand, the project's participation and opt-out rates for SCE's Green Rate and CPA's Clean Rate electricity rate options used by tenants; and the total kW of solar PV panels installed at the project site.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|--|---|--|
| Transportation | | |
| <p>3. Meets Transportation Screening Criteria</p> <p>For <u>development projects</u>, does the project:</p> <p>A) have no retail component and generate a net increase of less than 110 daily vehicle trips?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to item (B) below.</p> <p>For <u>development projects</u>, does the project:</p> <p>B) have a retail component and contains retail uses that do not exceed 50,000 square feet of gross floor area?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below. If the project contains retail and is mixed use, proceed to item (C) below.</p> <p>If “No,” proceed to item (C) below.</p> <p>For <u>development projects</u>, does the project:</p> <p>C) have a residential component and 100% of the units, excluding manager’s units, are set aside for lower income households?</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below. If the project contains retail and is mixed use, proceed to item (D) below.</p> <p>If “No,” proceed to item (D) below.</p> <p>For <u>development projects</u>:</p> <p>D) Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor <u>and</u>:</p> <ul style="list-style-type: none"> i. has a Floor Area Ratio greater than 0.75? ii. provides less parking than required by the Los Angeles County Code? iii. is consistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS)? iv. does not replace residential units set aside for lower income households with a smaller number of market-rate residential units? <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to streamlining requirement #3 below.</p> <p>For <u>transportation projects</u>, does the project meet <u>one</u> of the following transportation screening criteria?</p> <p>A) The project would not include the addition of through traffic lanes on existing or new highways, including general-purpose lanes, high-occupancy vehicle (HOV) lanes, peak-period lanes, auxiliary lanes, and lanes through grade-</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure(s) proposed as an alternative strategy (provide additional documentation as necessary).</i></p> | <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|--|---|--|
| <p>separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than 1 mile in length designed to improve roadway safety).</p> <p>B) The project would reduce roadway capacity and VMT.</p> <p>If “Yes,” skip streamlining requirements #4, #5, #12, #13, and #14 below. Please complete items #6 through #11 below.</p> <p>If “No,” proceed to streamlining requirement #4 below.</p> <p>Supports 2045 CAP Measures (and Actions): T1 (T1.1, T1.2)</p> | | |
| <p>4. TIER 1: Increase Density Near High-Quality Transit Areas</p> <p>If the project is located within a High Quality Transit Area (HQTAs), it must achieve a minimum of 20 dwelling units (DU) per acre, consistent with the Housing Element Rezoning Program.</p> <p>If the project is not located within an HQTAs, it must locate residential and employment centers within 1 mile of an HQTAs.</p> <p>Supports 2045 CAP Measures (and Actions): T1 (T1.1, T1.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below).</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>5. TIER 1: Incorporate Bicycle and Pedestrian Infrastructure</p> <p>The project must incorporate pedestrian and bicycle infrastructure into its design:</p> <p>A) Provide pedestrian facilities and connections to public transportation consistent with the Pedestrian Action Plan, Active Transportation Plans, and Vision Zero Action Plan, and any other relevant governing plan.</p> <p>B) Provide bicycle facilities consistent with the Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan, and any other relevant governing plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen Code.</p> <p>C) Increase sidewalk coverage to improve pedestrian access.</p> <p>D) Improve degraded or substandard sidewalks.</p> <p>E) Incorporate best practices to ensure pedestrian infrastructure is contiguous and links externally with existing and planned pedestrian facilities; best practices include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety.</p> <p>F) Minimize barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings.</p> <p>G) Provide bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added off-street vehicle parking spaces.</p> <p>H) Provide short- and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity and nothing less than CALGreen Code requirements, whichever is more restrictive.</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)</i></p> <p><i>IN ADDITION, provide the length and/or amount of bicycle and pedestrian infrastructure incorporated, such as feet or miles of bikeways.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>I) Support the County’s goal to increase bikeway miles by 300 percent by 2030 (including Class I bike paths, Class II bike lanes, and Class III bike routes). Supports 2045 CAP Measures (and Actions): T3 (T3.1, T3.2, T3.3)</p> | | |
| <p>6. TIER 1: Comply with the County Transportation Demand Management (TDM) Ordinance The Project must comply with the TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. Comply with any applicable VMT reduction target and incorporate any required monitoring mechanisms for development, subject to the ordinance. Supports 2045 CAP Measures (and Actions): T4 (T4.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i> IN ADDITION, provide the number of employers participating in the TDM program, the total trip reduction goals for the project’s TDM program, and the total trips and VMT reduced via the project’s TDM program.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>7. TIER 1: Comply with the County’s Transportation Impact Guidelines The project must comply with the County’s current Transportation Impact Analysis (TIA) Guidelines. Projects may screen out if they meet certain criteria, such as being located in a transit priority area or local-serving retail development less than 50,000 square feet. Projects that do not screen out must meet the VMT efficiency metrics identified by the TIA Guidelines (e.g., daily VMT per capita for residential projects that is 16.8% below the existing residential VMT per capita for the Baseline Area in which the project is located) and quantitatively demonstrate how these metrics are achieved, pursuant to the TIA Guidelines requirements. Supports 2045 CAP Measures (and Actions): T1, T2, T3, T4, T5</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed strategy (provide additional documentation as described below).</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>8. TIER 1: Incorporate Electric Vehicle Charging Infrastructure The project must incorporate zero-emission vehicle (ZEV) infrastructure and incentives into its design as follows: A) Comply with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of electric vehicle (EV) charging infrastructure (EVCSs) and readiness. This may include minimum requirements for EV charging stations, EV-capable parking spaces, and EV-ready parking spaces. B) Comply with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan.¹ C) Include electric options for promoting active transportation, such as electric scooters and e-bikes. D) Provide education and outreach to tenants and occupants about the benefits of ZEVs and the project’s EV infrastructure.</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below)</i> IN ADDITION, provide the number of ZEVs in the project’s tenant’s and vendor fleet, if available; the number of public and private EVCSs installed; and the number of scooters/e-bikes available to tenants.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|--|---|--|
| <p>Supports 2045 CAP Measures (and Actions): T6 (T6.1, T6.2, T6.3, T6.4, T6.5, T6.6, T6.7)</p> | | |
| <p>9. TIER 1: Decarbonize Trucks For projects that include goods movement facilities and/or warehouses, the project must incorporate freight decarbonization technologies and infrastructure, including:</p> <ul style="list-style-type: none"> A) Comply with any CALGreen Code requirement, County ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness for goods movement facilities and trucks. B) Provide EVCSs at all new warehouse loading docks. C) Comply with any provisions and requirements in the forthcoming Zero Emission Vehicle Master Plan related to goods movement. D) Implement freight decarbonization technologies along highway corridors. E) For all goods movement facilities, install alternative fueling infrastructure such as EVCSs, green hydrogen fueling stations, and/or biomethane fueling stations. F) Comply with any established zero-emission delivery zones. <p>Supports 2045 CAP Measures (and Actions): T8 (T8.1, T8.2, T8.3, T8.4, T8.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide the number of ZEV trucks in the project's tenant's and vendor fleet if available and the number EVCS installed.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>10. TIER 1: Incorporate Zero-Emission Technologies for Off-Road Vehicles & Equipment The project must:</p> <ul style="list-style-type: none"> A) Prohibit the use of small equipment powered by gasoline, diesel, propane, or other fossil fuels, including lawn and garden equipment and outdoor power equipment, for all tenants and owners. B) Provide educational materials to tenants regarding the SCAQMD Electric Lawn and Garden Equipment Incentive and Exchange Program, Commercial Lawn & Garden Battery Buy-Down Rebate Program, the Residential Lawn Mower Rebate Program, the new requirements of AB 1346, and any other available options and incentives for purchasing zero-emission equipment, including rebates and subsidies offered by CARB, the County, or other agencies and entities. C) Use electric and zero-emission construction equipment during project construction to the maximum extent feasible. Such equipment shall include forklifts, manlifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers, and other small equipment. At minimum, the project must use off-road construction equipment that meet CARB Tier 4 Final engine emission standards. D) Use electric and zero-emission agriculture and manufacturing equipment to the maximum extent feasible. <p>These requirements must be stipulated in the contract specifications for the project's construction and for the project's future tenants and any landscaping contracts for the property or tenants.</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide off-road vehicle and equipment fleet count, type, and fuel type, as available.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
|---|---|--|
| <p>Supports 2045 CAP Measures (and Actions): T9 (T9.1, T9.2, T9.3)</p> | | |
| <p>11. TIER 1: Electrify County Fleet Vehicles (for municipal projects only) For all new municipal projects and facilities that include the purchase or operation of new fleet vehicles, including public transit buses and shuttles, all such fleet vehicles must be ZEVs. Supports 2045 CAP Measures (and Actions): T7 (T7.1, T7.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the number of new ZEV buses and the total ZEV percentage of the project's fleet.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>12. TIER 2: Achieve a High Jobs/Housing Balance For projects with nonresidential development, the Project must incorporate the following design elements: A) Support the County's goal to achieve a job density of 300 jobs per acre. Supports 2045 CAP Measures (and Actions): T2 (T2.1)</p> | <p><i>Describe how the project will achieve a job density of 300 jobs per acre.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR <i>Describe why such actions are not incorporated into your project.</i> IN ADDITION, provide the job density of the project in terms of jobs per acre.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |
| <p>13. TIER 2: Encourage Transit, Active Transportation, and Alternative Modes of Transportation For transit projects only, incorporate the following: A) Expand and improve frequency of existing network of County shuttles. B) Install bus-only lanes and signal prioritization along major thoroughfares. C) Install full bus rapid transit infrastructure along priority corridors. For all other projects, incorporate the following: A) Provide new mobility services, such as micro transit, autonomous delivery vehicles, and on-demand autonomous shuttles, in unincorporated Los Angeles County. B) Offer free transit passes for students, youth, seniors, disabled, and low-income populations. C) Implement telecommuting by project tenants and residents. D) Establish temporary and permanent car-free areas at the project site. Supports 2045 CAP Measures (and Actions): T4 (T4.1, T4.2, T4.3, T4.6, T4.7, T4.8, T4.10)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are not incorporated into your project.</i> IN ADDITION, for transit projects, provide the size of area served by transit, the number of employees and residents served by transit, the transit service frequency and headways, the increase in headways or frequencies provided by the project, total transit service hours provided by transit, the number and length of bus-only lanes, and information on signal prioritization on transit routes implemented by the project. For non-transit projects, provide the number of residents within one-half mile of bus or active transportation services; information on any new mobility services offered, information on free transit passes offered, the number of employers</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| | <i>participating in telecommuting programs, and the number and location of car-free areas provided by the project.</i> | |
| <p>14. TIER 2: Implement Parking Limitations Projects should include the following characteristics:</p> <ul style="list-style-type: none"> A) Shared and reduced parking strategies, such as shared parking facilities, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces, and reduced parking below allowable amount B) Minimum amount of required parking C) Unbundled parking costs to reflect cost of parking D) Parking pricing to encourage “park-once” behavior E) Compliance with all County parking reform strategies and policies <p>Supports 2045 CAP Measures (and Actions): T5 (T5.1)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions not incorporated into your project.</i> <i>IN ADDITION, provide the total number of parking spaces, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces; information on parking costs and unbundling; and parking prices.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply |
| Building Energy and Water | | |
| <p>15. TIER 2: Decarbonize Existing Buildings This action applies only to projects that include a retrofit, remodel, or redesign of an existing building. If the proposed project does not include a retrofit, remodel, or redesign, select “Not Applicable” in the <i>Project Complies</i> column. The project must incorporate the following design elements:</p> <ul style="list-style-type: none"> A) Achieve zero GHG emissions for on-site energy use. B) Comply with all applicable Building Performance Standards.² C) Comply with all building carbon intensity limits.³ D) If the project is a major renovation, achieve ZNE and/or comply with the City’s ZNE ordinance.⁴ <p>Supports 2045 CAP Measures (and Actions): E1 (E1.1, E1.2, E1.3, E1.4, E1.5, E1.6)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide the project’s anticipated GHG emissions associated with on-site energy consumption (i.e., natural gas use and electricity use) and the number of existing buildings transitioned to zero-GHG buildings.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed |
| <p>16. TIER 2: Decarbonize New Buildings For projects under construction before 2030, the project must achieve zero GHG emissions for on-site energy use, and/or comply with the County’s building decarbonization ordinance, unless the project meets specific exemptions identified in the ordinance.⁵ For projects under construction after 2030, the project must be zero-net-energy (ZNE) and achieve zero GHG emissions for on-site energy use, and/or comply with the County’s ZNE ordinance, unless the project meets specific exemptions identified in the ordinance.⁶</p> <p>Supports 2045 CAP Measures (and Actions): E2 (E2.1, E2.2, E2.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> <i>IN ADDITION, provide the number and square footage of zero GHG emission buildings built, all ZNE buildings built, and the total GHG emissions anticipated for all buildings.</i></p> | <ul style="list-style-type: none"> <input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>17. TIER 1: Increase Building Energy Efficiency This action applies only to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select “Not Applicable” in the <i>Project Complies</i> column. The project shall incorporate the following energy efficiency measures into the design:</p> <ul style="list-style-type: none"> A) Comply with all applicable building performance standards.⁷ B) Incorporate strategic energy management programs to reduce building energy demands. C) Conduct an energy audit or benchmarking analysis to identify potential energy savings opportunities and implement such opportunities. D) Achieve CALGreen Code Tier 2 or voluntary building energy measures as they apply to the retrofit. E) Replace existing appliances with higher-efficiency models. F) Install heat-trapping surfaces to cool or green surfaces, as feasible. G) Participate in SoCalIREN, SCE, CPA, or other energy efficiency programs. H) Conduct other energy efficiency retrofits. I) Achieve zero-net-energy, if feasible. <p>Supports 2045 CAP Measures (and Actions): E4 (E4.1, E4.2, E4.3)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the total number of energy retrofits performed, the building size (square footage) retrofit, the total project energy use and anticipated energy savings through retrofits, and the number and area of cool and green roofs installed.</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>18. TIER 1: Implement Water Use Efficiency and Water Conservation The project must comply with the current water conservation ordinance in place, including any requirements for LEED or Sustainable SITES standards.⁸ The project must also incorporate water use efficiency and conservation measures, including:</p> <ul style="list-style-type: none"> A) High-efficiency appliances/fixtures to reduce water use, and/or include water-efficient landscape design B) CALGreen Code Tier 1 and Tier 2 voluntary water conservation measures C) Low-flow or high-efficiency water fixtures D) Water-efficient landscapes with lower water demands than required by the DWR 2015 Model Water Efficient Landscape Ordinance E) Drought-tolerant and native plant species only F) A comprehensive water conservation strategy G) Educational materials provided to future tenants and building occupants about water-saving behaviors and water-conserving landscaping <p>Supports 2045 CAP Measures (and Actions): E6 (E6.1, E6.2, E6.3, E6.4, E6.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i> OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i> IN ADDITION, provide the project’s estimated total water consumption (in GPCD or total gallons), the square footage of buildings that are water-neutral, and the project’s building size (square footage).</p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>19. TIER 2: Reduce the Life-Cycle Carbon Intensity of Building Materials and Phase Out the Use of High-GWP Refrigerants The project must incorporate the following design elements to the maximum extent feasible:</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i> OR, <i>Describe why this action is not applicable to your project.</i></p> | <p><input type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>A) For projects that are not fully electric, incorporate biomethane into the natural gas mix in place of traditional natural gas.</p> <p>B) Use negative-carbon concrete for all construction.</p> <p>C) Use low-GWP refrigerants and fire suppression equipment for all uses on-site.</p> <p>D) Comply with all County codes and ordinances regarding building material carbon intensity and high-GWP refrigerants and other gases.</p> <p>Supports 2045 CAP Measures (and Actions): E3 (E3.1, E3.2, E3.3, E3.4)</p> | <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the amount of biomethane used by the project, the quantity of negative-carbon concrete for construction, and the quantity of low-GWP refrigerants and fire suppression equipment used.</i></p> | |
| <p>20. TIER 2: Use Energy Storage and Microgrids</p> <p>The project must incorporate the following design elements to the maximum extent feasible:</p> <p>A) Install energy storage systems.</p> <p>B) Use a building-scale or community microgrid to support demand management and peak shaving.</p> <p>Supports 2045 CAP Measures (and Actions): ES4 (ES4.1, ES4.2, ES4.3, ES4.4, ES4.5)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project</i></p> <p><i>IN ADDITION, provide the total kW of energy storage capacity installed and operational information for any microgrids utilized, if applicable.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| <p>21. TIER 2: Use Recycled Water and Graywater for Non-potable Uses and Include Rainfall Capture</p> <p>The project must implement water reuse strategies onsite through the following design elements:</p> <p>A) Require use of reclaimed/recycled water and/or graywater for outdoor uses.</p> <p>B) Install residential graywater systems that meet appropriate regulatory standards.</p> <p>C) Install rainfall capture systems.</p> <p>D) Install dual plumbing for the use of recycled water.</p> <p>Supports 2045 CAP Measures (and Actions): E5 (E5.1, E5.2, E5.3, E5.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are not incorporated into your project</i></p> <p><i>IN ADDITION, provide the amount of reclaimed/recycled water and/or graywater used by the project.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| <p>Waste</p> | | |
| <p>22. TIER 1: Compost Organic Materials</p> <p>The project must comply with all state and local requirements for composting and organic waste collection, including but not limited to Chapter 20.91 (Mandatory Organic Waste Disposal Reduction Ordinance) of the Los Angeles County Code, including all County requirements pursuant to AB 1826 and SB 1383. The project must also:</p> <p>A) Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles.</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>Ensure sufficient pick-up of collection containers to meet the needs of the occupants.</p> <p>B) Include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. Provide educational material and training to occupants and tenants in how to properly separate organics from all other solid waste and place organics in a separate container designated for organics.</p> <p>C) Ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting.</p> <p>D) Require that all single-use food service ware (plates, bowls, cups) and accessories (straws, utensils, condiment cups) used by tenants at the project site be BPI certified compostable fiber, except where certain materials may be deemed medically necessary or necessary to ensure equal access for persons with disabilities.</p> <p>E) Require that any single-use accessories (straws, utensils, condiment cups) be only available on demand.</p> <p>F) Ensure that containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the County as requested.</p> <p>G) Work with the waste hauler to provide educational materials to tenants on at least an annual basis.</p> <p>H) Provide compliance data to the County as required for any current auditing program.</p> <p>Supports 2045 CAP Measures (and Actions): W1 (W1.1, W1.2) and W2 (W2.1, W2.2, W2.5)</p> | <p><i>IN ADDITION, provide the project's estimated organic waste generation (tons), the amount of organic waste sent to landfills, and the amount of organic waste generated by the project which is diverted from landfills.</i></p> | |
| <p>23. TIER 1: Recycle Recyclable Materials</p> <p>The project must comply with all state and local requirements for recycling, also including but not limited to Section 20.72.170 (Recyclable Materials Collection Program) of the Los Angeles County Code and all County requirements pursuant to AB 341 and AB 1826. The project must also:</p> <p>A) Comply with any zero waste ordinance in place at the time of project approval.</p> <p>B) Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse).</p> <p>C) Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the total C&D tonnage recycled and/or diverted from landfills, the project's estimated recyclable waste generation (tons), the amount of recyclable waste sent to landfills, and the amount of recyclable waste generated by the project which is diverted from landfills.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>receptacles. Ensure sufficient pick-up of collection containers to meet the needs of the occupants.</p> <p>D) Include space for multi-stream collection containers in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. Provide educational materials and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling.</p> <p>E) Ensure that all project occupants and tenants separate recyclables from all other refuse and place recyclables in a separate container designated for recycling.</p> <p>F) Require that all single-use food service ware (plates, bowls, cups) and accessories (straws, utensils, condiment cups) used by tenants at the project site be BPI certified compostable fiber, except where certain materials may be deemed medically necessary or necessary to ensure equal access for persons with disabilities.</p> <p>G) Require that any single-use accessories (straws, utensils, condiment cups) be only available on demand.</p> <p>H) Ensure that containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the County as requested.</p> <p>I) Work with the waste hauler to provide educational materials to tenants on at least an annual basis.</p> <p>J) Provide compliance data to the County as required for any current auditing program.</p> <p>Supports 2045 CAP Measures (and Actions): W1 (W1.1, W1.3)</p> | | |
| <p>24. TIER 2: Incorporate On-Site Composting, Mulching, and/or Anaerobic Digestion</p> <p>The project may incorporate organic waste processing capabilities, such as composting, mulching, or anaerobic digestion facilities (where applicable). Collaborate with PW and waste agencies to share organic processing information with interested parties.</p> <p>Supports 2045 CAP Measures (and Actions): W2 (W2.2, W2.3, W2.4)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p><i>OR,</i></p> <p><i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i></p> <p><i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide information on any anaerobic digestion facilities constructed including their capacity and the amount of organic waste digested and converted to electricity, and the project's total energy generation from organic waste.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| <p>Agriculture, Forestry, and Other Land Use (AFOLU)</p> | | |
| <p>25. TIER 1: Incorporate Tree Plantings and Expand Urban Forest Cover</p> <p>The project must:</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| <p>A) Enhance and expand urban forest cover and vegetation by planting trees and other vegetation. All trees and vegetation planted must be drought-tolerant or California native trees and plants.</p> <p>B) Comply with the Urban Forest Management Plan.</p> <p>C) Replace all native trees removed by the project with an equal or greater number of new trees.</p> <p>D) To the extent feasible, incorporate equitable urban forest practices and prioritize:</p> <ul style="list-style-type: none"> i. Tree- and park-poor communities ii. Climate and watershed-appropriate and drought/pest-resistant vegetation iii. Appropriate watering, maintenance, and disposal practices iv. Shading v. Biodiversity <p>Supports 2045 CAP Measures (and Actions): A3 (A3.1, A3.2, A3.3)</p> | <p>OR, <i>Describe why this action is not applicable to your project.</i></p> <p>OR, <i>Describe why such actions are infeasible and identify the alternative measure proposed (provide additional documentation as described below).</i></p> <p><i>IN ADDITION, provide the total number of trees planted, the total tree canopy cover, the project's total green space area, and the area of impervious surface converted to pervious surfaces.</i></p> | <p><input type="checkbox"/> Project Does Not Comply and Alternative Measure Proposed</p> |
| <p>26. TIER 2: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands</p> <p>For all projects involving the preservation, conservation, and restoration of agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County, the project may:</p> <ul style="list-style-type: none"> A) Support the use of public and private land for urban and peri-urban agriculture, such as community gardens, and including urban vertical surfaces. B) Conserve and restore natural forest lands, wetlands and wildlands through land acquisitions and conservation easements. C) Preserve existing agricultural and farmlands, including those mapped as Agricultural Resource Areas. Expand adjoining areas to enlarge farmland area. D) Actively manage forests to reduce wildfire risk and prevent carbon loss in forest lands. <p>Supports 2045 CAP Measures (and Actions): A1 (A1.1 and A1.2)</p> | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR, <i>Describe why this action is not applicable to your project.</i></p> <p>OR, <i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the total number of acres preserved, conserved, and restored by land type, the number and size of community gardens added, the amount of vertical surface converted, and the acres of forest land managed for wildfire risk reduction and carbon stock savings if applicable.</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |
| <p>27. TIER 2: Implement Regenerative Agricultural Practices</p> <p>For all agricultural projects, the project may:</p> <ul style="list-style-type: none"> A) Utilize fallow and field resting practices to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. B) Implement a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture. C) Use compost and/or organic fertilizer. | <p><i>Describe which project compliance options from the leftmost column you are implementing.</i></p> <p>OR, <i>Describe why this action is not applicable to your project.</i></p> <p>OR, <i>Describe why such actions are not incorporated into your project.</i></p> <p><i>IN ADDITION, provide the quantity of synthetic fertilizers and compost used / applied, the number of acres of cover crops</i></p> | <p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> |

| CEQA STREAMLINING REQUIREMENT | DESCRIPTION OF PROJECT MEASURE(S) / DOCUMENTATION OF COMPLIANCE / EXPLANATION OF NON-COMPLIANCE | PROJECT COMPLIES |
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| Supports 2045 CAP Measures (and Actions): A2 (A2.1, A2.2) | using regenerative agricultural techniques, the tonnage of fertilizer/compost produced each year. | |

NOTES:

Abbreviations: 2045 CAP = 2045 Los Angeles County Climate Action Plan; AB = Assembly Bill; AFOLU = Agriculture, Forestry, and Other Land Use; C&D = Construction & Demolition; CALGreen Code = California Green Building Standards Code; CAP = Climate Action Plan; CARB = California Air Resources Board; CEQA = California Environmental Quality Act; County = County of Los Angeles; CPA = Clean Power Alliance; DU = dwelling unit(s); DWR = California Department of Water Resources; EIR = environmental impact report; EV = electric vehicle; EVCS = electric vehicle charging station; General Plan = Los Angeles County General Plan 2035; GHG = greenhouse gas; GWP = global warming potential; HOV = high-occupancy vehicle; HQTA = High Quality Transit Area; kW = kilowatts; LEED = Leadership in Energy and Environmental Design; MWELO = Model Water Efficient Landscape Ordinance; PV = photovoltaic; PW = Los Angeles County Department of Public Works; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SCE = Southern California Edison; SoCalREN = Southern California Regional Energy Network; TDM = transportation demand management; TIA = Transportation Impact Analysis; VMT = vehicle miles traveled; WUI = wildland urban interface; ZEV = zero-emission vehicle; ZNE = zero net energy.

- ¹ Although the County has not yet developed the Zero Emission Vehicle Master Plan, the County will develop such a Plan before 2030, pursuant to Implementing Action T6.1 in the 2045 CAP.
- ² Although the County has not yet developed building performance standards, the County will develop such a standard before 2030, pursuant to Implementing Action E1.1 in the 2045 CAP.
- ³ Although the County has not yet developed carbon intensity limits, the County will develop such a standard before 2030, pursuant to Implementing Action E1.2 in the 2045 CAP.
- ⁴ Although the County has not yet developed a ZNE ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E1.3 in the 2045 CAP.
- ⁵ Although the County has not yet developed a building decarbonization ordinance, the County will develop such an ordinance before 2030, pursuant to Implementing Action E2.1 in the 2045 CAP.
- ⁶ Although the County has not yet developed a ZNE ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E2.2 in the 2045 CAP.
- ⁷ Although the County has not yet developed building performance standards, the County will develop such a standard before 2030, pursuant to Implementing Action E4.1 in the 2045 CAP.
- ⁸ Although the County has not yet developed a net zero water ordinance, the County will develop such a standard before 2030, pursuant to Implementing Action E6.1 in the 2045 CAP.
- ⁹ Although the County has not yet developed building performance standards for building material carbon intensity and high-GWP refrigerants, the County will develop standards before 2030, pursuant to Implementing Actions E3.3 and E3.4 in the 2045 CAP.

Table F-2: 2045 CAP Greenhouse Gas Emissions Reduction Alternative Measures

| DESCRIPTION OF PROPOSED ALTERNATIVE MEASURE | DESCRIPTION OF GHG REDUCTION ESTIMATE |
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| <p>Alternative for 2045 CAP Compliance Requirement #: [Number] Emissions Sector: [transportation, building energy and water, waste, AFOLU, or other sector] Measure Description: [Describe the proposed project measure and why it is proposed]</p> | <p>[Demonstrate the effectiveness of the proposed measure to reduce the project’s GHG emissions. Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emissions reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for project measures and actions.]</p> |
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F.4 Offsite GHG Reduction Program Framework

Introduction

Action ES5.4 of the 2045 CAP would establish an Offsite GHG Emissions Reduction Program (Offsite Program) for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. This program would allow new development to fund decarbonization programs for existing development to accelerate 2045 CAP measures and actions or go beyond 2045 CAP measures and actions. Future projects that cannot achieve net-zero GHG emissions or are unable to comply with all CEQA streamlining requirements would have the option to participate in the Offsite Program. The Offsite GHG Reduction Program could be used for projects that propose alternative GHG emissions reduction measures to those identified in Table F-1, or that propose to include additional GHG emissions reduction measures beyond those described in Table F-1. This program would allow project applicants to implement local projects that reduce GHG emissions in unincorporated Los Angeles County (referred to herein as *offsite projects*). Such offsite projects must not otherwise be required by law or regulation and would not have happened but for the requirements placed on the project by the 2045 CAP CEQA Streamlining Checklist.

Once the Offsite GHG Reduction Program has been instituted by the County, project applicants will be able to use the program to complete Table F-2. Once established, the Offsite GHG Reduction Program should only be used after all feasible on-site GHG reduction measures are implemented at the project site to demonstrate compliance with the CEQA streamlining requirements.

This section represents a *framework* for the forthcoming Offsite Program; the actual program will be developed after the 2045 CAP is adopted.

CARB Guidance on Offsite GHG Reductions

As discussed in Section F.1, CARB supports “off-site GHG mitigation” in Appendix D of the 2022 Scoping Plan for projects that have implemented all feasible on-site GHG reductions: “If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project’s impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement *local*, off-site direct GHG reduction strategies.”²¹ The Offsite Program would achieve these goals.

Relationship to 2045 CAP Measures and Actions

The offsite projects that will be allowed in the program fall into two general categories:

1. Offsite projects *included* in the 2045 CAP’s measures and actions.
2. Offsite projects *not included* in the 2045 CAP’s measures and actions.

²¹ California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Appendix D, “Local Actions.” November 16, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>. Accessed in January 2023.

Offsite Projects Included in the 2045 CAP

This category represents projects (and the GHG emissions reductions they create) that *are* already included in the 2045 CAP's measures and actions. An allowable offsite project could involve, for example, accelerating measures, actions, and/or programs that are already identified in the 2045 CAP by providing additional funding to that program. Such projects would not add new programs or actions not already included in the 2045 CAP; they would expand upon and/or accelerate these programs and actions. Example projects are discussed below.

Offsite Projects Not Included in the 2045 CAP

This category represents projects (and the GHG emissions reductions they create) that are *not* already included in the 2045 CAP's measures and actions. An allowable offsite project could involve, for example, creating or funding programs for implementing new technologies (e.g., zero-emission construction equipment) or implementing new emissions reduction measures or actions not considered in the 2045 CAP. Example projects are discussed below.

Offsite Projects Not Eligible

Offsite projects that are implementing planned 2045 CAP measures and actions on the 2045 CAP's identified timeline are not eligible for the Offsite Program. Additionally, an offsite project activity that would be mandated by any current or future ordinance (such as a future ZNE ordinance for new buildings) cannot be used in the Offsite Program.

Carbon offset credits are not permitted to be used as offsite projects. In other words, projects that generate carbon offset credits to be traded on a voluntary market registry are not permitted to be used in this program.

Location

All offsite projects must be located within the jurisdictional boundaries of unincorporated Los Angeles County. Therefore, emissions reductions achieved by such offsite projects will be accounted for in future GHG inventory updates and will contribute toward the emissions reduction targets, which are based on the jurisdictional boundaries of unincorporated Los Angeles County. See 2045 CAP Appendix A for a discussion of the inventory and forecast boundaries.

Offsite projects shall be in the following locations, in order of priority, to the extent available: (1) Within the neighborhood surrounding the project site; (2) within the greater surrounding community (i.e., town); (3) within the same Planning Area; and (4) in other Planning Areas, but within unincorporated Los Angeles County.

Standards

All offsite projects must achieve **six specific standards** to ensure that the GHG reductions produced by offsite projects are environmentally sound; namely that the GHG reductions be real, permanent, quantifiable, verifiable, enforceable, and additional, defined as follows:

- **Real** means that the offsite project's GHG reductions are the direct result of complete emissions accounting. In other words, *real* means that GHG reductions or GHG enhancements result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG

emissions sources, GHG sinks, and GHG reservoirs within the offsite project boundary and account for uncertainty.²²

- **Permanent** means either that GHG reductions and GHG removal enhancements are not reversible, or that when GHG reductions and GHG removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG emissions reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years.
- **Quantifiable** means the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to an offsite project's baseline in a reliable and replicable manner for all GHG emissions sources, GHG sinks, or GHG reservoirs included within the offsite project boundary, while accounting for uncertainty. GHG emissions reductions from an activity must be rigorously quantified, and such GHG reductions would only be permitted in an amount that corresponds to the GHG emissions that have been quantified. GHG emissions accounting must be accurate and adhere to standardized quantification methodologies, which are discussed further below.
- **Verifiable** means that an offsite project's assertion of GHG emissions reductions is well documented and transparent, such that it lends itself to an objective review by an accredited verification body. The forthcoming Offsite Program itself may require third-party verification.²³
- **Enforceable** means the authority of the County to hold a particular party responsible to take appropriate action if any of the provisions of the Offsite Program are violated.
- **Additional** means that the offsite project is not otherwise required by law, regulation, or legally binding mandate, and none of the offsite project's GHG emissions reductions would otherwise occur. In other words, an offsite project activity is additional if it can be demonstrated that the activity would result in emissions reductions or removals exceeding what would be achieved in the absence of the incentive provided by the proposed project and the 2045 CAP CEQA Streamlining Checklist. Additionality is an important characteristic the Offsite Program because it indicates that the GHG reductions represent a net environmental benefit and a real reduction of GHG emissions and can thus be used to offset a project's new GHG emissions.

Proposed Process

If an applicant selects to use the Offsite Program as an alternative GHG emissions reduction measure beyond those described in Table F-1, a specific process must be followed. The process will consider the following topics, which are subject to modification by the County in the forthcoming Offsite Program.

Quantification: Project applicants shall provide evidence to the County showing that the offsite project(s) proposed achieve the amount of GHG emissions reductions required. Examples of

²² In general, uncertainty should be accounted for by using conservative assumptions and/or parameter values that tend to underestimate, rather than overestimate, total GHG emissions reductions.

²³ Generally, third-party verification includes a review of all documentation, monitoring data, and procedures used to estimate GHG reductions, and culminate in the verification body's issuance of a report and statement that identifies the quantity of GHG reductions that can be issued to the offsite project. As part of the report and statement, the independent third party verifies that the offsite project has adhered to the pertinent protocol or methodology, to confirm that the offsite project's GHG reductions are real, permanent, quantifiable, enforceable, and additional.

such evidence include applicable methodologies associated with the GHG emissions reductions, quantification calculations, and supporting documentation.

Standards: Project applicants must demonstrate, with substantial evidence, that all six of the offsite project standards are met: *real, permanent, quantifiable, verifiable, enforceable, and additional*.

Enforcement: Project applicants shall obtain all necessary permits and approvals for implementation of the offsite project implementation and such materials shall be submitted to the County for review and approval before project approval.

Timing: Project applicants shall submit documentation to the County identifying the quantity of GHG emissions reductions required by the offsite project over a specific time frame to be identified in the Offsite Program (e.g., before project approval or permit issuance, over the course of buildout of the project).

Monitoring: Project applicants shall submit regular reports documenting the offsite project's achieved GHG emissions reductions over a specified time period (such as the previous or current calendar year).

Example Offsite Projects

- **Local building electrification programs:** Programs that target existing residential and commercial buildings in the project's vicinity for electrification, provided that such electrification actions are not already required by law or regulation, County building performance standards, or reach code requirements. For example, replacing a natural gas-fired heating, ventilation, and air conditioning system with an electric heat pump or replacing a gas stove with an induction cooktop.
- **Off-site EV chargers:** Programs that install EV charging stations, provided that such installations are not already required by law or regulation, or County reach code requirements and the forthcoming Zero Emission Vehicle Master Plan (Measure T6). For example, funding or directly installing EV chargers in multi-unit dwellings in disadvantaged or low-income areas, public locations (schools, libraries, city centers), workplaces, and key destinations (e.g., parks, recreation areas, sports arenas).
- **Local building solar programs:** Programs that target existing residential and commercial buildings in the project's vicinity for rooftop solar photovoltaic installations, provided that such installations are not already required by law or regulation, County building performance standards, or reach code requirements. For example, funding or directly installing rooftop solar installations or community solar systems.
- **Energy storage and microgrids:** Funding for or direct implementation of a microgrid to balance generation from non-controllable renewable power sources, such as solar, with distributed, controllable generation, such as natural gas-fueled combustion turbines; or a strategically deployed battery storage system to make the grid more flexible by unlocking renewable energy and replacing fossil fuel-generated electricity, especially during peak hours. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.
- **Truck and bus electrification programs:** Funding for the purchase of zero-emission vehicle trucks and buses to replace existing fossil fuel-powered trucks and buses;

coordination with local transportation agencies and school districts and replacement of diesel- or gasoline-fueled buses with less-polluting technologies such as compressed natural gas, electric, hybrid-electric, fuel cell, or other commercially available technologies. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.

- **Hydrogen fuel:** Funding for or programs that provide renewable hydrogen fueling stations to nearby truck fleets, such as at logistics warehouses, or other uses of renewable hydrogen fuel as a replacement for fossil fuels. Such programs would be allowed provided they are not already required by law or regulation, County building performance standards, or reach code requirements.

Environmental Impacts Pursuant to CEQA

Project applicants' CEQA documents would be required to disclose the impacts of any offsite projects that are proposed for funding or implementation. The Final PEIR for the 2045 CAP evaluates the potential environmental impacts of the 2045 CAP's measures and actions. For any offsite projects implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the 2045 CAP's measures and actions, the resulting environmental impacts would be expected to be similar to those disclosed in the Final PEIR. Project applicants' CEQA documents may rely on the Final PEIR impact analysis for an offsite project similar to those contemplated by the 2045 CAP, unless a specific offsite project causes a new or substantially more severe impact for that project type not addressed in the Final PEIR.

Next Steps and Additional Guidance

This section represents a *framework* for the Offsite Program. The actual Offsite Program will be developed separately after the 2045 CAP is formally adopted and the Final PEIR is certified. Once the formal Offsite Program is developed, project applicants may use it to demonstrate compliance with the CEQA streamlining requirements as indicated above.

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2045 CLIMATE ACTION PLAN

Recirculated Draft Program Environmental Impact Report

March 2023

State Clearinghouse #2021120568

Prepared for:
County of Los Angeles
Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, California 90012

Prepared by:
Environmental Science Associates
626 Wilshire Boulevard Suite 1100
Los Angeles, California 90017



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Acronyms and Other Abbreviations

| | |
|-------------------|--|
| 2014 Scoping Plan | <i>First Update to the Climate Change Scoping Plan</i> |
| 2016–2040 RTP/SCS | <i>2016–2040 Regional Transportation Plan/Sustainable Communities Strategy</i> |
| 2017 Scoping Plan | <i>California’s 2017 Climate Change Scoping Plan</i> |
| 2022 Scoping Plan | <i>2022 Scoping Plan for Achieving Carbon Neutrality</i> |
| 2020 CCAP | <i>Unincorporated Los Angeles County Community Climate Action Plan 2020</i> |
| 2020–2045 RTP/SCS | <i>2020–2045 Regional Transportation Plan/Sustainable Communities Strategy</i> |
| 2045 CAP | <i>2045 Los Angeles County Climate Action Plan</i> |
| °C | degrees Celsius |
| °F | degrees Fahrenheit |
| µg/m ³ | micrograms per cubic meter |
| A-1 | Light Agricultural zone |
| A-2 | Heavy Agricultural zone |
| AB | Assembly Bill |
| ACC II | Advanced Clean Cars II |
| ACCM | asbestos-containing construction materials |
| ADA | Americans with Disabilities Act |
| AFV | alternative fuel vehicle |
| afy | acre-feet per year |
| AICUZ | Air Installation Compatible Use Zone |
| ALUC | Airport Land Use Commission |
| ALUCP | airport land use compatibility plan |
| APS | Accessible Pedestrian Signals |
| AQMP | air quality management plan |
| AR4 | Intergovernmental Panel on Climate Change Fourth Assessment Report |
| ARA | Agricultural Resource Area |
| ASBS | Area of Special Biological Significance |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers |
| ATCM | Airborne Toxic Control Measure |
| AVAB | Antelope Valley Air Basin |
| AVAQMD | Antelope Valley Air Quality Management District |
| B.P. | Before Present |

| | |
|---------------------|--|
| BACT | Best Available Control Technology |
| basin plan | water quality control plan |
| Basin Plan | <i>Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watershed of Los Angeles and Ventura Counties</i> |
| BAT | Best Available Technology |
| BAU | business-as-usual |
| BMP | best management practice |
| CAA | Clean Air Act |
| CAAQS | California ambient air quality standards |
| CAFE | Corporate Average Fuel Economy |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Cal OES | California Office of Emergency Services |
| Cal/OSHA | California Division of Occupational Safety and Health |
| CalARP | California Accidental Release Prevention |
| CalEEMod | California Emissions Estimator Model |
| CalEMA | California Emergency Management Agency |
| CalEPA | California Environmental Protection Agency |
| CALGreen Code | California Green Building Standards Code |
| California Register | California Register of Historical Resources |
| CalRecycle | California Department of Resources Recycling and Recovery |
| Caltrans | California Department of Transportation |
| CAP | climate action plan |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CAT | Climate Action Team |
| CBC | California Building Code |
| CCR | California Code of Regulations |
| CCS | carbon capture sequestration |
| CCUS | carbon capture, utilization, and sequestration |
| Cd | elemental cadmium |
| CDFW | California Department of Fish and Wildlife |
| CDR | carbon dioxide removal |
| CdTe | cadmium telluride |
| CEC | California Energy Commission |
| CEO OEM | County of Los Angeles Chief Executive Office, Office of Emergency Management |
| CEQA | California Environmental Quality Act |

| | |
|-----------------------------|---|
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CERCLIS | Comprehensive Environmental Response, Compensation, and Liability Information System |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| CNDDDB | California Natural Diversity Database |
| CNEL | community noise equivalent level |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |
| CO ₂ | carbon dioxide |
| CO ₂ e | units of equivalent mass of carbon dioxide |
| COLE | coefficient of linear extensibility |
| Construction General Permit | California Construction Stormwater Permit |
| COP26 | 26th Conference of Parties |
| County | unincorporated areas of Los Angeles County |
| County Planning | Los Angeles County Department of Regional Planning |
| Countywide | Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities |
| CPA | Clean Power Alliance |
| CPUC | California Public Utilities Commission |
| CRPR | California Rare Plant Rank |
| CUPA | Certified Unified Program Agency |
| CWA | Clean Water Act |
| DAC | direct air capture |
| dB | decibel(s) |
| dBA | A-weighted decibel(s) |
| DOF | California Department of Finance |
| DPR | Department of Parks and Recreation |
| Draft EIR | draft program environmental impact report |
| DTSC | California Department of Toxic Substances Control |
| DU | dwelling unit |
| DWR | California Department of Water Resources |
| EIR | environmental impact report |
| EISA | Energy Independence and Security Act |
| EMFs | electric and magnetic fields |
| EO | Executive Order |

| | |
|---------------------------|--|
| EQ Zapp | California Earthquake Hazards Zone Application |
| ESCP | erosion and sediment control plan |
| EV | electric vehicle |
| EVCS | electric vehicle charging station |
| FAA | Federal Aviation Administration |
| FEMA | Federal Emergency Management Agency |
| FESA | federal Endangered Species Act |
| FHSZ | fire hazard severity zone |
| FHWA | Federal Highway Administration |
| FIRM | Flood Insurance Rate Map |
| FMMP | Farmland Mapping and Monitoring Program |
| FR | <i>Federal Register</i> |
| FTA | Federal Transit Administration |
| General Plan | <i>Los Angeles County General Plan 2035</i> |
| GHG | greenhouse gas |
| GPCD | gallons per capita per day |
| GSA | groundwater sustainability agency |
| GSP | groundwater sustainability plan |
| GWh | gigawatt-hours |
| GWP | global warming potential |
| HI | Hazard Index |
| HMA | Hillside Management Area |
| HMBP/SPCC plan | hazardous materials business plan/spill prevention control and countermeasures plan |
| HPO | Historic Preservation Ordinance |
| HQTA | High Quality Transit Area |
| HRA | health risk assessment |
| Hz | hertz |
| I | Interstate |
| IBC | International Building Code |
| in/sec | inches per second |
| Industrial General Permit | Statewide General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ |
| IPCC | Intergovernmental Panel on Climate Change |
| IRWMP | integrated regional water management plan |
| LA County | County of Los Angeles government |
| LA County DPW | County of Los Angeles Department of Public Works |

| | |
|----------------------|---|
| LABS | City of Los Angeles Bureau of Sanitation |
| LACFCD | Los Angeles County Flood Control District |
| LACoFD | Los Angeles County Fire Department |
| LACSD | Los Angeles County Sanitation Districts |
| LADWP | City of Los Angeles Department of Water and Power |
| LAX | Los Angeles International Airport |
| L_{dn} | average A-weighted noise level during a 24-hour day |
| L_{eq} | equivalent sound level over a specified period of time, typically 1 hour |
| LESA | land evaluation and site assessment |
| LID | Low Impact Development |
| LID Standards Manual | <i>County of Los Angeles Department of Public Works Low Impact Development Standards Manual</i> |
| L_{max} | maximum instantaneous noise level experienced during a given period of time |
| L_{min} | minimum instantaneous noise level experienced during a given period of time |
| LOS | level of service |
| LRA | Local Responsibility Area |
| LTS | CEQA significance conclusion of less than significant |
| LTSM | CEQA significance conclusion of less than significant with mitigation incorporated |
| L_x | noise level exceeded a percentage of a specified time period (e.g., L_{50} = noise level exceeded 50 percent of the time) |
| m | meter(s) |
| MATES V | Multiple Air Toxics Exposure Study V |
| MCL | Maximum Contaminant Level |
| MDAB | Mojave Desert Air Basin |
| MERV | maximum efficiency rating value |
| Metro | Los Angeles County Metropolitan Transportation Authority |
| MLD | Most Likely Descendant |
| mm/s | millimeters per second |
| MMT | million metric tons |
| MMTCO _{2e} | million metric tons of carbon dioxide equivalent |
| MPO | metropolitan planning organization |
| MS4 | municipal separate storm sewer system |
| MT | metric tons |
| MTBE | methyl tertiary butyl ether |

| | |
|-------------------------------|--|
| MTCO _{2e} | metric tons of carbon dioxide equivalent |
| MWD | Metropolitan Water District of Southern California |
| NAAQS | national ambient air quality standards |
| NAGPRA | Native American Graves Protection and Repatriation Act of 1990 |
| NAHC | Native American Heritage Commission |
| National Register | National Register of Historic Places |
| NEPA | National Environmental Policy Act |
| NEV | neighborhood electric vehicle |
| NFIP | National Flood Insurance Program |
| NHPA | National Historic Preservation Act |
| NHTSA | National Highway Traffic Safety Administration |
| NPPA | Native Plant Protection Act |
| NO | nitric oxide |
| NO ₂ | nitrogen dioxide |
| NOP | Notice of Preparation |
| NO _x | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| NPPA | Native Plant Protection Act |
| NRCS | U.S. Natural Resources Conservation Service |
| NREL | National Renewable Energy Laboratory |
| O-S | Open Space zone |
| OAERP | Operational Area Emergency Response Plan |
| OPR | Governor's Office of Planning and Research |
| OSHA | Occupational Safety and Health Administration |
| OurCounty Sustainability Plan | <i>OurCounty: Los Angeles Countywide Sustainability Plan</i> |
| PEIR | program environmental impact report |
| PM | particulate matter |
| PM _{2.5} | fine inhalable particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size |
| PM ₁₀ | inhalable particulate matter with an aerodynamic diameter less than or equal to 10 microns in size |
| Porter-Cologne Act | Porter-Cologne Water Quality Control Act |
| ppb | parts per billion |
| ppm | parts per million |
| PPV | peak particle velocity |
| PQS | professional qualifications standards |

| | |
|-------------------------|---|
| PREPARE | President’s Emergency Plan for Adaptation and Resilience |
| Project | <i>2045 Los Angeles County Climate Action Plan</i> |
| PRPA | Paleontological Resources Preservation Act of 2009 |
| Public Discussion Draft | public discussion draft of <i>the 2045 Los Angeles County Climate Action Plan</i> |
| PV | photovoltaic |
| PVC | polyvinyl chloride |
| RACT SIP | Reasonably Available Control Technology—State Implementation Plan |
| RCRA | Resource Conservation and Recovery Act |
| RCRIS | Resource Conservation and Recovery Act Information System |
| Recirculated Draft PEIR | recirculated draft program environmental impact report |
| REO | Los Angeles County Renewable Energy Ordinance |
| RFS | Renewable Fuel Standard |
| RHNA | Regional Housing Needs Allocation |
| RMP | risk management plan |
| RMS | root mean square |
| RPS | Renewables Portfolio Standard |
| RTP | Regional Transportation Plan |
| RTP/SCS | Regional Transportation Plan/Sustainable Communities Strategy |
| RWQCB | regional water quality control board |
| SAFE | Safer Affordable Fuel-Efficient |
| SB | Senate Bill |
| SCAB | South Coast Air Basin |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCE | Southern California Edison |
| SCS | Sustainable Communities Strategy |
| SDWA | Safe Drinking Water Act |
| SEA | Significant Ecological Area |
| SGMA | Sustainable Groundwater Management Act |
| SIP | State Implementation Plan |
| SO ₂ | sulfur dioxide |
| SoCal Gas | Southern California Gas Company |
| SO _x | sulfur oxides |
| SP | service population |
| SR | State Route |

| | |
|-----------------------|---|
| SRA | State Responsibility Area |
| State Emergency Plan | <i>State of California Emergency Plan</i> |
| SU | CEQA significance conclusion of significant and unavoidable |
| SVP | Society of Vertebrate Paleontology |
| SWPPP | storm water pollution prevention plan |
| SWRCB | State Water Resources Control Board |
| T-BACT | best available control technology for toxics |
| TAC | toxic air contaminant |
| TDM | Transportation Demand Management |
| TDS | total dissolved solids |
| Te | tellurium |
| TMDL | total maximum daily load |
| TOD | Transit Oriented District |
| TPA | Transit Priority Area |
| TSM | Transportation System Management |
| UCLA | University of California, Los Angeles |
| UCMP | University of California Museum of Paleontology |
| UNFCCC | United Nations Framework Convention on Climate Change |
| unincorporated areas | unincorporated areas of Los Angeles County |
| unincorporated County | unincorporated areas of Los Angeles County |
| USACE | U.S. Army Corps of Engineers |
| U.S.C. | United States Code |
| USEPA | U.S. Environmental Protection Agency |
| USFS | U.S. Forest Service |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| UWMP | urban water management plan |
| VdB | vibration decibel(s) |
| VHFHSZ | Very High Fire Hazard Severity Zone |
| VMT | vehicle miles traveled |
| VOC | volatile organic compound |
| W | Watershed zone |
| WSA | water supply assessment |
| ZEV | zero-emissions vehicle |
| ZNE | zero net energy |

EXECUTIVE SUMMARY

ES.1 Introduction

This recirculated draft program environmental impact report (PEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and its implementing regulations (CEQA Guidelines) (California Code of Regulations Title 14, Section 15000 et seq.). In accordance with Section 15168 of the CEQA Guidelines, this Recirculated Draft PEIR analyzes the environmental impacts that could result from implementation of the *Draft 2045 Los Angeles County Climate Action Plan* (Draft 2045 CAP or Project) and alternatives. This Recirculated Draft PEIR is an informational document whose purpose is not to recommend either approval or denial, but to inform agency decision-makers and the public about the environmental impacts of the Project at a program level.

The County of Los Angeles (County) issued a Draft PEIR for the Draft 2045 CAP on May 25, 2022. After the July 18, 2022 conclusion of the comment period for the Draft PEIR, the County elected to revise the Draft 2045 CAP in response to public and other input received, and to transition the 2045 CAP’s aspirational goal of carbon neutrality by 2045 into a target consistent with new legislation, Assembly Bill (AB) 1279. This Recirculated Draft PEIR describes changes to the Draft 2045 CAP in Chapter 2, Project Description, and analyzes the Project as revised. It also adds a new Alternative 3 that includes the minimum targets needed to “align” with California’s codified statewide targets for 2030 and 2045, includes other content to address issues raised by public comments on the Draft PEIR, and makes other minor clarifications. This Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR. See Section 1.4.3, Recirculated Draft Program EIR, for a list summarizing the types of changes the Recirculated Draft PEIR has made to the Draft PEIR.

The CEQA process includes public involvement at several steps, including consultation with California Native American Tribes consistent with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1). AB 52 establishes a process for CEQA lead agencies to consult with tribes that are traditionally and culturally affiliated with a project area—here, the unincorporated areas of Los Angeles County. For this Project, the County also invited public involvement in the form of public review of the Draft 2045 CAP and as part of the CEQA scoping process. All resource areas in the CEQA Guidelines Appendix G Environmental Checklist have been analyzed either in the Initial Study (see Appendix A.2, *Initial Study*) or in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. A summary of the Draft 2045 CAP’s strategies and measures, and the environmental resource areas that could be affected by their adoption or by projects facilitating Draft 2045 CAP measures and actions, is provided in **Table ES-1, Summary of Draft 2045 CAP Measures and Affected Resource Areas**.

Informed by public involvement, the CEQA process includes preparation of this Recirculated Draft PEIR, which has been issued for public review and input, and preparation of a Final PEIR, which will respond to comments received on the Recirculated Draft PEIR and will revise the Recirculated Draft PEIR as appropriate. Comments on the May 2022 Draft PEIR, though part of the administrative record, will not be responded to in the Final PEIR; new comments must be submitted on the Recirculated Draft PEIR. Following release of the Final PEIR, the Regional Planning Commission will then consider recommending whether the County Board of Supervisors should certify the Final PEIR and approve the 2045 CAP, following which the Board of Supervisors will consider Final PEIR certification and 2045 CAP approval.

The County will consider the Final EIR, along with other information in the administrative record, when it decides whether to approve the Project, approve it with modifications, or disapprove the Project. Other agencies also may rely on this document in decision-making processes for later projects facilitated by the Draft 2045 CAP. For additional details, see Section 2.9, *Required Approvals: Environmental Review and Consultation Requirements*, in Chapter 2, *Project Description*.

**TABLE ES-1
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|---|
| Strategy 1: Decarbonize the Energy Supply | |
| Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations | <p>Air Quality:</p> <ul style="list-style-type: none"> • Action ES1.2 - Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data. <p>Energy:</p> <ul style="list-style-type: none"> • Action ES1.1 - Collaborate with other local jurisdictions and utilities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. Develop an ordinance. • Action ES1.2 - Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data. <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES1.3 - Develop a carbon removal strategy that considers direct air capture and carbon capture and sequestration (CCS). • Action ES1.2 - Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action ES1.1 - Collaborate with other local jurisdictions and utilities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. Develop an ordinance. |
| Measure ES2: Procure Zero-Carbon Electricity | <p>Energy:</p> <ul style="list-style-type: none"> • Action ES2.1 - Transition all County facilities within unincorporated areas to CPA's 100% Green Power option, SCE's 100% Green Rate option, or other available 100% renewable electricity service. • Action ES2.2 – Complete enrollment of the community in CPA's 100% Green Power option or SCE's Green Rate option. <p>Air Quality:</p> <ul style="list-style-type: none"> • Action ES2.2 – Complete enrollment of the community in CPA's 100% Green Power option or SCE's Green Rate option. <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES2.2 – Complete enrollment of the community in CPA's 100% Green Power option or SCE's Green Rate option. |
| Measure ES3: Increase Renewable Energy Production | <p>Energy:</p> <ul style="list-style-type: none"> • Action ES3.1 - Require rooftop solar PV for all new development. • Action ES3.2 - Install rooftop solar PV at existing buildings. • Action ES3.3 - Identify and install solar PV systems at existing viable County facilities and properties. • Action ES3.4 - Explore the feasibility to install community-shared solar facilities on County properties where opportunities exist. • Action ES3.5 - Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings. • Action ES3.6 - Streamline and prioritize permitting for solar and battery storage projects. |

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|---|
| Strategy 1: Decarbonize the Energy Supply (cont.) | |
| Measure ES3 (cont.) | <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES3.1 - Require rooftop solar PV for all new development. • Action ES3.2 - Install rooftop solar PV at existing buildings. • Action ES3.3 - Identify and install solar PV systems at existing viable County facilities and properties. <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action ES3.4 - Explore the feasibility to install community-shared solar facilities on County properties where opportunities exist. • Action ES3.5 - Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings. • Action ES3.6 - Streamline and prioritize permitting for solar and battery storage projects. |
| Measure ES4: Increase Energy Resilience | <p>Energy:</p> <ul style="list-style-type: none"> • Action ES4.2 - Invest in energy storage and microgrids at critical County facilities through CPA’s Power Ready Program. • Action ES4.4 - Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management, peak shaving, and load shifting to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. <p>Hazards and Hazardous Materials:</p> <ul style="list-style-type: none"> • Action ES4.1 - Develop a program to deploy community resilience hubs at scale. • Action ES4.3 - Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency. • Action ES4.4 - Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management, peak shaving, and load shifting to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. • Action ES4.5 - Develop a Countywide program to promote energy efficiency and resilience measures in facilities providing critical community services. |
| Measure ES5: Establish GHG Requirements for New Development | <p>Energy:</p> <ul style="list-style-type: none"> • Action ES5.1 - Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action ES5.1 - Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action ES5.3 - Evaluate a program for reducing GHG emissions for new development that require General Plan amendments. • Action ES5.4 - Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. |

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|---|
| Strategy 1: Decarbonize the Energy Supply (cont.) | |
| Measure ES5 (cont.) | <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action ES5.1 - Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action ES5.1 - Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action ES5.2 - Implement the 2045 CAP consistency review checklist for new development to demonstrate consistency with the 2045 CAP's strategies, measures, and actions. • Action ES5.3 - Evaluate a program for reducing GHG emissions for new development that require General Plan amendments. • Action ES5.4 - Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. |
| Strategy 2: Increase Densities and Diversity of Land Uses Near Transit | |
| Measure T1: Increase Density Near High-Quality Transit Areas | <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action T1.1 - Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action T1.1 - Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. • Action T1.2 - Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. |
| Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use | <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action T2.1 - Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. <p>Transportation:</p> <ul style="list-style-type: none"> • Action T2.1 - Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. |

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|--|--|
| Strategy 3: Reduce Single-Occupancy Vehicle Trips | |
| Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips | Aesthetics: <ul style="list-style-type: none"> • Action T3.3 - Collaborate with Metro and other transit providers to enhance pedestrian and bicycle environments through energy efficient lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program. Transportation: <ul style="list-style-type: none"> • Action T3.1 - Create a more connected and safer bikeway network by expanding bikeway facilities and implementing protected and separated lanes. • Action T3.2 - Implement and regularly update the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans. • Action T3.3 - Collaborate with Metro and other transit providers to enhance pedestrian and bicycle environments through energy efficient lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program. |
| Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation | Transportation: <ul style="list-style-type: none"> • Action T4.1 - Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. • Action T4.2 - Collaborate with Metro and other transit providers to install bus-only lanes and/or signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate. • Action T4.3 - Collaborate with Metro and other transit providers to develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit. • Action T4.4 - Collaborate with Metro and other transit providers to set aside maintenance funds to ensure that public transit facilities, including stations and stops, are safe and clean to enhance the transit experience and increase ridership. • Action T4.5 - Collaborate with Metro and other transit providers to develop and implement a transportation demand management (TDM) ordinance that requires future development projects to incorporate measures such as subsidized transit passes and car share. • Action T4.6 - Offer free and/or discounted transit passes for students, youth, seniors, people with disabilities, and low-income populations. • Action T4.7 - Expand and improve the County's Telecommuting Policy, using data gathered through the alternative work program. • Action T4.8 - Establish temporary and permanent car-free areas. • Action T4.9 - Develop a VMT bank or exchange program. • Action T4.10 - Collaborate with Metro and other transit providers to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission. |
| Measure T5: Limit and Remove Parking Minimums | Transportation: <ul style="list-style-type: none"> • Action T5.1 - Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, development of planning strategies for transitioning land dedicated to parking to alternative transit and public uses, and incentives for developers to provide less than maximum allowable parking. |

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|---|
| Strategy 4: Institutionalize Low-Carbon Transportation | |
| Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales | <p>Air Quality:</p> <ul style="list-style-type: none"> • Action T6.1 - Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure. • Action T6.2 - Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County • Action T6.3 - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. • Action T6.4 - Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities. • Action T6.5 - Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • Action T6.6 - Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options. • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources. <p>Energy:</p> <ul style="list-style-type: none"> • Action T6.2 - Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County. • Action T6.5 - Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources. <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action T6.1 - Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure. • Action T6.2 - Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County • Action T6.3 - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. • Action T6.4 - Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities. • Action T6.5 - Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • Action T6.6 - Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options. • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources. |

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|---|
| Strategy 4: Institutionalize Low-Carbon Transportation (cont.) | |
| Measure T6 (cont.) | <p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action T6.1 - Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure. • Action T6.3 - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. • Action T6.4 - Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities. <p>Transportation:</p> <ul style="list-style-type: none"> • Action T6.6 - Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action T6.1 - Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure. • Action T6.2 - Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County • Action T6.3 - Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. • Action T6.4 - Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in frontline, BIPOC, and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for frontline, BIPOC, and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities. • Action T6.5 - Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. • Action T6.6 - Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options. • Action T6.7 - Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources. |
| Measure T7: Electrify County Fleet Vehicles | <p>Air Quality:</p> <ul style="list-style-type: none"> • Action T7.1 - Electrify the County bus and shuttle vehicle fleets and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. • Action T7.2 - Electrify light-duty County fleet vehicles. <p>Energy:</p> <ul style="list-style-type: none"> • Action T7.1 - Electrify the County bus and shuttle vehicle fleets and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. • Action T7.2 - Electrify light-duty County fleet vehicles. |

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|--|
| Strategy 4: Institutionalize Low-Carbon Transportation (cont.) | |
| Measure T7 (cont.) | Utilities and Service Systems: <ul style="list-style-type: none"> • Action T7.1 - Electrify the County bus and shuttle vehicle fleets and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. • Action T7.2 - Electrify light-duty County fleet vehicles. |
| Measure T8: Accelerate Freight Decarbonization | Air Quality: <ul style="list-style-type: none"> • Action T8.1 - Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones. • Action T8.2 - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • Action T8.3 - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. • Action T8.4 - Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. • Action T8.5 - Electrify the County medium- and heavy-duty vehicle fleet. GHG Emissions: <ul style="list-style-type: none"> • Action T8.1 - Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones. • Action T8.2 - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • Action T8.3 - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. • Action T8.4 - Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. • Action T8.5 - Electrify the County medium- and heavy-duty vehicle fleet. Land Use and Planning: <ul style="list-style-type: none"> • Action T8.2 - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • Action T8.3 - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. • Action T8.4 - Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. • Action T8.5 - Electrify the County medium- and heavy-duty vehicle fleet. Utilities and Service Systems: <ul style="list-style-type: none"> • Action T8.2 - Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure. • Action T8.3 - Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. • Action T8.5 - Electrify the County medium- and heavy-duty vehicle fleet. |

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|--|--|
| Strategy 4: Institutionalize Low-Carbon Transportation (cont.) | |
| Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment | <p>Air Quality:</p> <ul style="list-style-type: none"> • Action T9.1 - Partner with the South Coast Air Quality Management District and Antelope Valley Air Quality Management District to increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment. • Action T9.2 - Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. • Action T9.3 - Require, to the maximum extent feasible, the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment for County projects. <p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • Action T9.2 - Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action T9.2 - Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. |
| Strategy 5: Decarbonize Buildings | |
| Measure E1: Transition Existing Buildings to All-Electric | <p>Energy:</p> <ul style="list-style-type: none"> • Action E1.1 – Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. • Action E1.2 – Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. • Action E1.3 – Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. • Action E1.4 – Create a plan for phased electrification of County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action E1.1 – Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. • Action E1.3 – Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action E1.5 – Create a comprehensive fund aggregation program to support energy efficiency, decarbonization, and resilience in new and existing affordable housing. • Action E1.6 – Create and resource an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing. |

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|--|---|
| Strategy 5: Decarbonize Buildings (cont.) | |
| Measure E1 (cont.) | <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action E1.1 – Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. • Action E1.2 – Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. • Action E1.3 – Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. • Action E1.4 – Create a plan for phased electrification of County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. |
| Measure E2: Standardize All-Electric New Development | <p>Energy:</p> <ul style="list-style-type: none"> • Action E2.1 – Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action E2.2 – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. • Action E2.3 – Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action E2.1 – Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action E2.2 – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. • Action E2.3 – Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments. <p>Population and Housing:</p> <ul style="list-style-type: none"> • Action E2.1 – Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action E2.2 – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action E2.1 – Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. • Action E2.2 – Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. |

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|---|
| Strategy 5: Decarbonize Buildings (cont.) | |
| Measure E3: Other Decarbonization Actions | <p>GHG Emissions:</p> <ul style="list-style-type: none"> • Action E3.4 – Develop a refrigerant management program that establishes a phase-out timeline for high-GWP refrigerants in existing buildings, incentivizes industrial equipment replacement, and specifies requirements for new development to use low-GWP refrigerants. <p>Energy:</p> <ul style="list-style-type: none"> • Action E3.1 – Work with utilities to incorporate increasing levels of biomethane into the natural gas mix. • Action E3.3 – Adopt reach code requirements that include performance standards to limit the amount of embodied carbon associated with construction. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action E3.2 – Adopt a concrete code for new construction that limits embodied carbon emissions; specify code requirements of carbon intensity limit for concrete. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • Action E3.1 – Work with utilities to incorporate increasing levels of biomethane into the natural gas mix. |
| Strategy 6: Improve Efficiency of Existing Building Energy Use | |
| Measure E4: Improve Energy Efficiency of Existing Buildings | <p>Energy:</p> <ul style="list-style-type: none"> • Action E4.1 – Adopt Building Performance Standards for energy efficiency in existing buildings. Require all buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements, and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.) • Action E4.2 – Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency. • Action E4.3 – Convert existing County-owned heat-trapping surfaces to cool or green surfaces. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • Action E4.1 – Adopt Building Performance Standards for energy efficiency in existing buildings. Require all buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements, and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.) • Action E4.2 – Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency. |

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|--|---|
| Strategy 7: Conserve Water | |
| Measure E5: Increase Use of Recycled Water and Graywater Systems | <p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • <u>Action E5.1</u> – Require dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems. • <u>Action E5.2</u> – Require the use of recycled water and graywater for agricultural purposes where recycled water is available. Identify soil and water conservation best management practices for agricultural uses. Work with Los Angeles County Sanitation Districts (LACSD) and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.3</u> – Require the use of recycled water and graywater for industrial purposes where recycled water is available. Identify water conservation best management practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.4</u> – Require the use of recycled water and graywater for landscaping irrigation purposes where recycled water is available. • <u>Action E5.5</u> – Partner with the County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action E5.2</u> – Require the use of recycled water and graywater for agricultural purposes where recycled water is available. Identify soil and water conservation best management practices for agricultural uses. Work with Los Angeles County Sanitation Districts (LACSD) and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.3</u> – Require the use of recycled water and graywater for industrial purposes where recycled water is available. Identify water conservation best management practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. • <u>Action E5.4</u> – Require the use of recycled water and graywater for landscaping irrigation purposes where recycled water is available. • <u>Action E5.5</u> – Partner with the County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects. |
| Measure E6: Reduce Indoor and Outdoor Water Consumption | <p>Hydrology and Water Quality:</p> <ul style="list-style-type: none"> • <u>Action E6.1</u> - Develop a water conservation ordinance for new development (public and private). Utilize Leadership in Energy and Environmental Design (LEED) or Sustainable SITES Initiative (SITES) standards. A future ordinance may include a net-zero water requirement for new greenfield development. • <u>Action E6.2</u> – Adopt a water efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their water use and demonstrate their pathway to efficiency. • <u>Action E6.3</u> – Incentivize residents to replace water-intensive landscaping, such as decorative turf, with water-conserving landscaping and/or California native plants through a new ordinance along with education and incentive programs. • <u>Action E6.4</u> – Implement strategies to improve water efficiency and increase water conservation at County facilities. <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action E6.1</u> - Develop a water conservation ordinance for new development (public and private). Utilize Leadership in Energy and Environmental Design (LEED) or Sustainable SITES Initiative (SITES) standards. A future ordinance may include a net-zero water requirement for new greenfield development. • <u>Action E6.2</u> – Adopt a water efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their water use and demonstrate their pathway to efficiency. <p>Population and Housing:</p> <ul style="list-style-type: none"> • <u>Action E6.5</u> – Integrate water-related programs into the County’s affordable housing preservation program to protect the housing affordability of units and to keep the units fit for their purpose in a changing climate. |

**TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS**

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|--|--|
| Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream | |
| Measure W1: Institutionalize Sustainable Waste Systems and Practices | <p>Hazards and Hazardous Materials:</p> <ul style="list-style-type: none"> • <u>Action W1.1</u> – Identify best practice waste pricing programs to reduce waste generation to the maximum extent feasible, including but not limited to differential prices for waste based on amount generated in the residential sector and reforms to tipping rate structures. • <u>Action W1.2</u> – Implement, enforce, and expand to the maximum extent feasible the single-use plastics ordinance and polystyrene ban. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action W1.3</u> – Increase the diversion requirements in the County’s Construction and Demolition Debris Ordinance and allow the use of recycled construction materials in new projects. |
| Measure W2: Increase Organic Waste Diversion | <p>Land Use and Planning:</p> <ul style="list-style-type: none"> • <u>Action W2.1</u> – Require organic waste generators to properly manage organic waste as per the Organic Waste Disposal Reduction Ordinance. Improve upon and expand existing practices and programs to minimize organic waste disposal in landfills. • <u>Action W2.2</u> – Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all County operations; establish a contamination monitoring plan for organic waste programs. • <u>Action W2.3</u> – Collaborate with the Los Angeles County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action W2.2</u> – Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all County operations; establish a contamination monitoring plan for organic waste programs. • <u>Action W2.3</u> – Collaborate with the Los Angeles County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste. • <u>Action W2.5</u> – Enhance and expand the County’s existing Food DROP food donation and redistribution program to divert edible food from landfills and make it available to food insecure communities. |
| Strategy 9: Conserve and Connect Wildlands and Working Lands | |
| Measure A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and Other Carbon-Sequestering Wildlands and Working Lands | <p>Agriculture and Forestry:</p> <ul style="list-style-type: none"> • <u>Action A1.1</u> – Develop an open space conservation and land acquisition strategy that prioritizes wildlife connectivity to conserve native habitats for carbon sequestration. • <u>Action A1.2</u> – Employ ecosystem-appropriate vegetation management of wildlands based on the best available science to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Leverage tools such as the Unified Land Management Plan and the Countywide Community Wildfire Prevention Plan. <p>Wildfire:</p> <ul style="list-style-type: none"> • <u>Action A1.2</u> – Employ ecosystem-appropriate vegetation management of wildlands based on the best available science to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Leverage tools such as the Unified Land Management Plan and Countywide Community Wildfire Prevention Plan. |

TABLE ES-1 (CONTINUED)
SUMMARY OF DRAFT 2045 CAP MEASURES AND AFFECTED RESOURCE AREAS

| Draft 2045 CAP Strategies and Measures | Implementing Actions and Primarily Affected Resource Areas |
|---|---|
| Strategy 10: Sequester Carbon and Implement Sustainable Agriculture | |
| Measure A2: Support Regenerative Agriculture | <p>Agriculture and Forestry:</p> <ul style="list-style-type: none"> • <u>Action A2.1</u> – Create fallow and field resting incentives to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. Create a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture. • <u>Action A2.2</u> – Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate. <p>Utilities and Service Systems:</p> <ul style="list-style-type: none"> • <u>Action A2.2</u> – Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate. |
| Measure A3: Expand Unincorporated Los Angeles County’s Tree Canopy and Green Spaces | <p>Agriculture and Forestry Resources:</p> <ul style="list-style-type: none"> • <u>Action A3.1</u> – Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity. • <u>Action A3.2</u> - Expand tree planting on County property and in the public right-of-way within unincorporated Los Angeles County. Encourage tree planting on private property. • <u>Action A3.3</u>– Develop an ordinance requiring that all removed trees be replaced by an equal or greater number of new trees. |

NOTES:

BIPOC = Black, Indigenous, People of Color; CALGreen Code = California Green Building Standards Code; CCS = capture and carbon and sequestration; Countywide = Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; CPA = Clean Power Alliance; Draft 2045 CAP = *Draft 2045 Los Angeles County Climate Action Plan*; EV = electric vehicle; EVCS = electric vehicle charging station; GHG = greenhouse gas; GWP = global warming potential; County = County of Los Angeles; LACSD = Los Angeles County Sanitation Districts; LEED = Leadership in Energy and Environmental Design; Metro = Los Angeles County Metropolitan Transportation Authority; PEV = plug-in electric vehicle; PV = photovoltaic; SCE = Southern California Edison; SITES = Sustainable SITES Initiative; SoCalREN = Southern California Regional Energy Network; TDM = Transportation Demand Management; VMT = vehicle miles traveled

SOURCE: Draft 2045 CAP

ES.2 Project Summary

ES.2.1 Project Overview

Approval of the Draft 2045 CAP would require an amendment to the *Los Angeles County General Plan 2035* (General Plan) to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), an implementing component of the General Plan's Air Quality Element.

In early 2020, the Los Angeles County Department of Regional Planning released a public discussion draft of the Draft 2045 CAP. After receiving significant comments from stakeholders, the County determined the need to substantially revise and update the public discussion draft. Revisions to the public discussion draft that are reflected in the Draft 2045 CAP include the following:

- An updated greenhouse gas (GHG) emissions inventory for 2018.
- New emissions forecasts for 2030, 2035, and 2045.
- New GHG emissions targets for 2030, 2035, and 2045.
- A revised suite of GHG emissions reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable.
- A technical modeling appendix to explain the Draft 2045 CAP's GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- A new development review consistency checklist to allow projects to streamline CEQA compliance by using the Draft 2045 CAP, per CEQA Guidelines Section 15183.5.
- An offsite GHG emissions reduction program to allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County.

ES.2.2 Project Objectives

From Executive Order S-3-05, which expressed the intent of the State of California in 2005 to address the issue of climate change through reducing GHGs, to AB 32 and other more recent legislative and other governmental actions, two things are clear: (1) Preventing or mitigating climate change is a key component of the state's sustainable future, and (2) local governments play a key role in reducing communitywide emissions with their control over local land use planning. In 2016, for example, Senate Bill (SB) 32 and its companion bill, AB 197, established a new statewide GHG emissions reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure that the benefits of state climate policies accrue to disadvantaged communities.

In response to the state’s efforts, the County is preparing the Draft 2045 CAP with the following objectives:

- (1) Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
- (2) Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
- (3) Provide a road map for reducing GHG emissions to achieve the County’s GHG emissions reduction targets.
- (4) Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
- (5) Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a “qualified CAP”) via a Draft 2045 CAP Consistency Checklist.

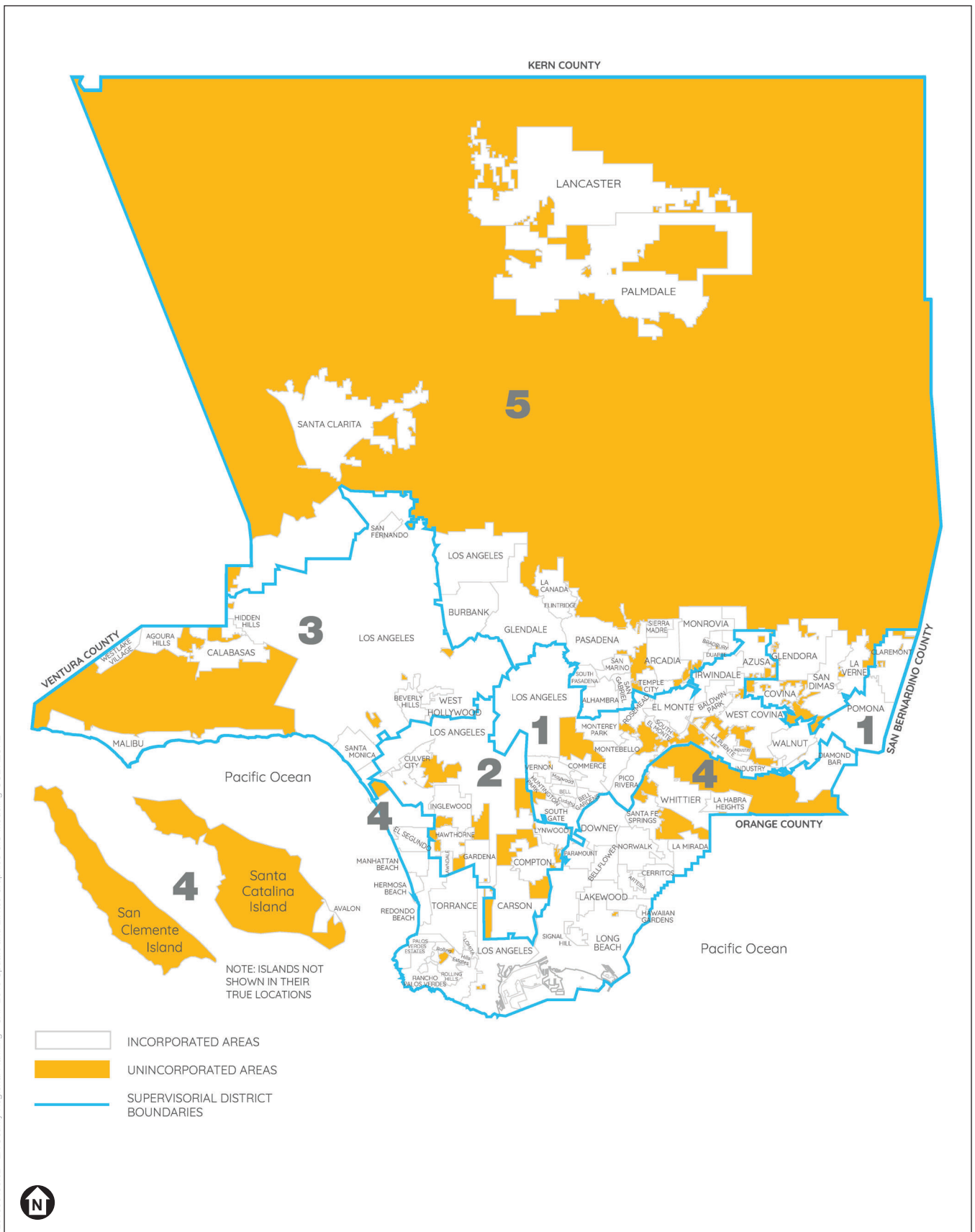
ES.2.3 Project Location

Los Angeles County stretches along 75 miles of the Pacific coast of Southern California. It is bordered to the south by Orange County, to the east by San Bernardino County, to the north by Kern County, and to the west by Ventura County. Los Angeles County includes two offshore islands: Santa Catalina Island and San Clemente Island. The Draft 2045 CAP would be implemented in all unincorporated areas of the County, which make up an approximately 1,696,000-acre (approximately 2,650-square-mile) area that is approximately 65 percent of the total land area of Los Angeles County. See **Figure ES-1**, *Map of Unincorporated Los Angeles County*.

The unincorporated areas in the northern portion of Los Angeles County include Angeles National Forest, parts of Los Padres National Forest and the Mojave Desert, and the Antelope Valley. In the western portion of the county, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in the southern and eastern portions consist of noncontiguous land areas including unincorporated areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

ES.3 Project Impacts and Mitigation Measures

Section 3.1, *Introduction to Environmental Analysis*, in Chapter 3 introduces key topics and concepts to establish a common understanding of the approach to the environmental analysis undertaken in this PEIR. Sections 3.2 through 3.18 provide an overview of the setting; analyze the impacts of the Project; and identify mitigation measures designed to reduce potential significant impacts below established thresholds.



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SOURCE: Los Angeles County Climate Action Plan
March 2020 Public Review Draft

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure ES-1
Map of Unincorporated Los Angeles County



ES 3.1 Impacts and Mitigation Measures

Table ES-2, *Summary of Impacts and Mitigation Measures*, summarizes the Draft 2045 CAP's environmental impacts, lists mitigation measures for significant impacts, and for each impact indicates levels of significance after mitigation. The identification of a significant and unavoidable program-level impact in this PEIR does not preclude the finding of a future less-than-significant impact for individual projects that may tier from the PEIR.

None of the proposed measures or actions indicate locations where individual projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time. Mitigation measures to reduce impacts would apply only if specific projects have potentially significant impacts.

**TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| Aesthetics | | |
| <p>Impact 3.2-1: Projects facilitated by the Draft 2045 CAP would have a substantial adverse effect on a scenic vista.</p> | <p>Mitigation Measure 3.2-1: Alternative Design. Projects facilitated by the Draft 2045 CAP that would obstruct views from publicly-accessible vantage points as defined in this analysis (such as from a vista point or a regional riding, hiking, or multiuse trail) shall identify and protect public views and significant landscape features or landforms visible from such views, and shall implement project-specific mitigation as applicable. If it is determined that a project would obstruct scenic views, the County shall consider alternative designs that seek to avoid and/or minimize these impacts. Project-specific design measures may include reduction in height of improvements or width of improvements to reduce obstruction of views or other adverse visual effects, or relocation of improvements to reduce obstruction of views. The County shall consider taking the following (or equivalent) actions: i) Require that the scale and massing of new development provide appropriate transitions in structure height and bulk that are sensitive to the physical and visual character of the affected area; ii) ensure structure heights are stepped back to maintain appropriate transitions in scale and to protect scenic views; and iii) avoid siting electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines where they could obstruct views from public vantage points, such as a regional riding, hiking, or multiuse trail, along scenic roadways and routes, or scenic vista points.</p> <p>Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. To partially screen views of projects facilitated by Draft 2045 CAP measures and actions in locations where they would be visible from publicly accessible vantage points (e.g., scenic vistas, trails, scenic roadways and routes) and affect visual character or quality, if feasible and effective, the County shall (and other implementing state or local agencies can and should) require the construction of a berm, vegetative screening, or other form of visual barrier of sufficient height to provide a visual transition from ground level to surrounding hills or ridgelines. The color of proposed building facades and roofs shall be designed to visually blend in and minimize the potential for visual contrast between the project elements and their natural landscape surroundings. Bright or very light colors (including white) shall be avoided. Re-contouring and revegetation of temporarily disturbed, graded areas shall be completed to provide a natural appearing landform upon completion of construction.</p> | <p>Significant and Unavoidable</p> |
| <p>Impact 3.2-2: Projects facilitated by the Draft 2045 CAP would be visible from or obstruct views from a regional riding, hiking, or multiuse trail.</p> | <p>Mitigation: Implement Mitigation Measures 3.2-1 and 3.2-2.</p> | <p>Significant and Unavoidable</p> |
| <p>Impact 3.2-3: Projects facilitated by the Draft 2045 CAP would substantially damage scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway.</p> | <p>Mitigation: Implement Mitigation Measures 3.2-1 and 3.2-2.</p> | <p>Significant and Unavoidable</p> |
| <p>Impact 3.2-4: Projects facilitated by the Draft 2045 CAP would substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.)</p> | <p>Mitigation: Implement Mitigation Measures 3.2-1 and 3.2-2.</p> | <p>Significant and Unavoidable</p> |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| Aesthetics (cont.) | | |
| <p>Impact 3.2-5: Projects facilitated by the Draft 2045 CAP would create a new source of substantial shadow, light, or glare, which would adversely affect day or nighttime views in the area.</p> | <p>Mitigation Measure 3.2-3: Reduce Light and Glare Impacts. To reduce significant light and glare impacts of projects facilitated by the Draft 2045 CAP, the County shall require the following measures to be incorporated: a) All lighting shall be focused toward the site and outdoor lighting shall be directed downward; b) The design of exterior light fixtures shall incorporate shielding to prevent glare and offsite light spillage; c) Outdoor lighting shall include non-glare fixtures; and d) Structure design shall include exterior finishes and materials that would be minimally reflective or sited or oriented in such a way as to direct glare away from sensitive receptors.</p> | Less than Significant |
| <p>Impact 3.2-6: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact to scenic vistas.</p> | <p>Mitigation: Implement Mitigation Measures 3.2-1 and 3.2-2.</p> | Significant and Unavoidable |
| <p>Impact 3.2-7: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail.</p> | <p>Mitigation: Implement Mitigation Measures 3.2-1 and 3.2-2.</p> | Significant and Unavoidable |
| <p>Impact 3.2-8: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact due to substantial cumulative damage to scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway.</p> | <p>Mitigation: Implement Mitigation Measures 3.2-1 and 3.2-2.</p> | Significant and Unavoidable |
| <p>Impact 3.2-9: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality.</p> | <p>Mitigation: Implement Mitigation Measures 3.2-1 and 3.2-2.</p> | Significant and Unavoidable |
| <p>Impact 3.2-10: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a new source of substantial shadow, light or glare, which would result in a significant cumulative impact to views in the area.</p> | <p>Mitigation: Implement Mitigation Measure 3.2-3.</p> | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| Agriculture and Forestry | | |
| Impact 3.3-1: Projects facilitated by the Draft 2045 CAP would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. | Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development. To reduce the impacts of converting Farmland in physical use for agriculture to nonagricultural uses when a utility-scale solar development is proposed on actively farmed land, the County shall require renewable energy project applicants to demonstrate their consideration of alternate sites consisting of formerly developed and/or contaminated lands such as landfills and mine sites located within one mile of the proposed project site when such development is consistent with General Plan and zoning requirements. | Significant and Unavoidable |
| Impact 3.3-2: Projects facilitated by the Draft 2045 CAP would conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. | Mitigation: Implement Mitigation Measure 3.3-1. | Significant and Unavoidable |
| Impact 3.3-3: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)). | None required. | Less than Significant |
| Impact 3.3-4: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use. | None required. | Less than Significant |
| Impact 3.3-5: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. | Mitigation: Implement Mitigation Measure 3.3-1. | Significant and Unavoidable |
| Impact 3.3-6: Projects facilitated by the Draft 2045 CAP would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. | None required. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|--|--|
| Agriculture and Forestry (cont.) | | |
| Impact 3.3-7: Projects facilitated by the Draft 2045 CAP would result in a significant cumulative impact related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use. | Mitigation: Implement Mitigation Measure 3.3-1. | Significant and Unavoidable |
| Impact 3.3-8: Projects facilitated by the Draft 2045 CAP would result in a cumulative significant impact related to conflicts with existing zoning for agricultural use, or with a designated Agricultural Resource Area. | Mitigation: Implement Mitigation Measure 3.3-1. | Significant and Unavoidable |
| Impact 3.3-9: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. | None required. | No Cumulative Impact |
| Impact 3.3-10: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use. | None required. | Less than Significant |
| Impact 3.3-11: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland. | Mitigation: Implement Mitigation Measure 3.3-1. | Significant and Unavoidable |
| Impact 3.3-12: Projects facilitated by the Draft 2045 CAP would not involve other changes in the existing environment which, due to their location or nature, could result in cumulative conversion of forest land to non-forest use. | None required. | Less than Significant |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|--|--|
| Air Quality | | |
| <p>Impact 3.4-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would conflict with or obstruct implementation of the applicable air quality plan.</p> | <p>Mitigation Measure 3.4-1: Construction Emissions. If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the applicable air quality management district (AQMD) adopted thresholds of significance, the lead agency shall require applicants for new projects facilitated by the Draft 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:</p> <ul style="list-style-type: none"> • When wind gusts exceed 25 miles per hour, cease all active construction activities or follow the applicable guidelines outlined in Table 3 of SCAQMD Rule 403 or Sections (C)(10) through (C)(14) of AVAQMD Rule 403. • Use construction equipment rated by the U.S. Environmental Protection Agency (USEPA) as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower, as commercially available. • Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards. • Limit nonessential idling of construction equipment to no more than five consecutive minutes. • Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. • Water all active construction areas at least three times daily or four times daily if needed to control dust emissions. Watering should be sufficient to prevent airborne visible dust from leaving the site. Where local water supplies are not available in sufficient quantities within unincorporated areas of the County, use nontoxic chemical soil stabilizers or dust suppressants to control dust emissions in sufficient amounts to prevent airborne visible dust from leaving the site. • Increase watering frequency and/or application frequency of nontoxic chemical soil stabilizers or dust suppressants whenever wind speeds exceed 25 miles per hour. Reclaimed water shall be used whenever possible. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). • Pave, apply water three times daily or as often as necessary to control dust, or where local water supplies are not available in sufficient quantities within unincorporated areas of the County, apply (nontoxic) soil stabilizers or dust suppressants on all unpaved access roads, parking areas, and staging areas at construction sites. • Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust. • Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Project site, or as often as needed, to keep streets free of visible soil material. | <p>Significant and Unavoidable</p> |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|-----------------------------|---|--|
| Air Quality (cont.) | | |
| Impact 3.4-1 (cont.) | <ul style="list-style-type: none"> • Where local water supplies are not available in sufficient quantities within unincorporated areas of Los Angeles County, hydroseed or apply nontoxic chemical soil stabilizers or dust suppressants to inactive construction areas. • Enclose, cover, water three times daily, or apply nontoxic chemical soil stabilizers or dust suppressants to exposed stockpiles (dirt, sand, etc.). • In areas with existing vegetation, install the facility components with minimal disturbance. Take all necessary precautions to not use vehicles or machinery for grading or alter the existing grade in these areas. • Design project facilities to limit ground disturbance or grading to only the access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. Ensure that the facilities comply with all applicable grading standards. • Site utility-scale renewable energy projects in a way that minimizes site disturbance, such as grading, brush clearance, and other forms of earthwork. • In areas with existing vegetation, install facility components with minimal disturbance. Take all necessary precautions to avoid using vehicles or machinery for grading, or altering the existing grade in these areas. • Establish and maintain a landscaped buffer: <ul style="list-style-type: none"> ○ Maintain a landscaped area at least 10 feet deep along any facility perimeter fencing and between such fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. ○ Establish the landscaped area in such manner that adequate corner sight distance is maintained from all access roads to the public right-of-way to the satisfaction of the County of Los Angeles Department of Public Works. ○ Maintain the landscaped area throughout the life of the facility. <p>Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. If, during subsequent project-level environmental review, operational fugitive dust emissions are determined to have the potential to be significant, the lead agency shall require applicants for new projects facilitated by the Draft 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during operational activities. Mitigation measures that may be identified during the environmental review include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Unpaved main access roads for operational vehicle trips shall be paved or effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air Resources Board–approved soil stabilizers, and that shall not increase any other environmental impacts, including loss of vegetation. • All other unpaved roads shall be stabilized using water or soil stabilizers so that vehicle travel on these roads does not cause visible dust plumes. | |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|------------------------------------|--|--|
| Air Quality (cont.) | | |
| <p>Impact 3.4-1 (cont.)</p> | <ul style="list-style-type: none"> • Gravel pads, grizzly strips, or other material track-out control methods approved for use by the local AQMD shall be installed where vehicles enter or exit unpaved roads onto paved roadways. • Traffic speeds on unpaved roads shall be limited to no more than 10 miles per hour, except that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. Traffic speed signs shall be displayed prominently at all site entrances and at egress point(s) from the central maintenance complex. • Where acceptable to the local and County fire departments, all unpaved, non-road surfaces that may potentially be disturbed shall be covered with a minimum of 3 inches of mulch. Where acceptable to the local and County fire departments, vegetation shall be maintained at 6 inches height. • All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least 6 inches of freeboard (minimum vertical distance between top of the load and top of the trailer) in accordance with California Vehicle Code Section 23114. • A fugitive dust control plan that includes a dust plume response plan shall be prepared for review and approval by applicable agencies before any earthwork activities. • Where acceptable to the local and County fire departments, weed control shall be accomplished by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. • Existing vegetation may be mowed, but removal of existing vegetation root systems shall be prohibited, except where necessary for construction of access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. • Continuous particulate monitors shall be installed at the discretion of the lead agency. <p>Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. If, during subsequent project-level environmental review, it is determined that VOC emissions impacts may be significant, the lead agency shall require Super-Compliant VOC-content architectural coatings (0 grams per liter to less than 10 grams per liter VOC) to be used during construction and operational application of paints and other architectural coatings to reduce ozone precursors. If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during days when the USEPA, CARB, or SCAQMD has forecasted the Air Quality Index for ozone to be greater than 100 for the project location.</p> | |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| Air Quality (cont.) | | |
| <p>Impact 3.4-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.</p> | <p>Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, and 3.4-3.</p> <p>Mitigation Measure 3.4-4: Enhanced Energy Conservation. If, during subsequent project-level environmental review, it is determined that operational emissions impacts are significant, the lead agency shall require the project to incorporate enhanced energy conservation measures beyond those required by federal or state law, County ordinance, and the Draft 2045 CAP measures and actions to reduce energy-related emissions. Enhanced energy conservation measures shall include one or more of the following as applicable:</p> <ul style="list-style-type: none"> • Install Energy Star rated heating, cooling, lighting, and appliances. • Use of heating, ventilation, and air conditioning equipment with a Seasonal Energy Efficiency Ratio of 12 or higher. • Installation of water heaters with an energy factor of 0.92 or higher. • Install solar water heaters or tankless water heaters. • Use passive solar cooling/heating. • Reduce building natural gas infrastructure, use renewable natural gas in place of fossil fuel-derived natural gas, or eliminate building natural gas infrastructure and fully electrify buildings. <p>Mitigation Measure 3.4-5: Low-VOC/Green Cleaning Product Educational Program. If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project applicant or developer to provide tenants and residents with information about low-VOC/green cleaning products and paints, including materials educating how to identify low-VOC cleaners and products.</p> | Significant and Unavoidable |
| <p>Impact 3.4-3a: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and TAC emissions.</p> | <p>Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, and 3.4-5.</p> <p>Mitigation Measure 3.4-6: Stationary Sources. Applicants for new or modified stationary sources facilitated by the Draft 2045 CAP measures and actions that: (1) have the potential to generate 40 or more diesel trucks per day and (2) are located within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the County Department of Regional Planning prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the applicable air quality management district. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), particulate matter concentrations would exceed 2.5 µg/m³, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project.</p> | Significant and Unavoidable |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| Air Quality (cont.) | | |
| <p>Impact 3.4-3a (cont.)</p> | <p>Mitigation Measure 3.4-7: Health Risk Assessment. Applicants shall submit a health risk assessment (HRA) to the County prior to future discretionary project approval for sensitive land uses facilitated by the Draft 2045 CAP measures and actions within the following distances as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, from these facilities or similar types of facilities that produce TAC emissions:</p> <ul style="list-style-type: none"> • Industrial facilities within 1,000 feet • Distribution centers (40 or more trucks per day) within 1,000 feet • Major transportation projects (50,000 or more vehicles per day) within 1,000 feet • Gasoline dispensing facilities within 300 feet <p>Applicants proposing projects facilitated by the Draft 2045 CAP measures and actions which produce TAC emissions may be required to submit an HRA based on local rules and regulations, and/or at the discretion of the lead agency.</p> <p>The HRA shall be prepared in accordance with policies and procedures of the applicable Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:</p> <ul style="list-style-type: none"> • Air intakes located away from high-volume roadways and/or truck loading zones, unless it can be demonstrated to County Department of Regional Planning that there are operational limitations. • Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters. <p>Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the County and shall be verified by County Department of Regional Planning.</p> | |
| <p>Impact 3.4-3b: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not expose sensitive receptors to substantial pollutant concentrations relating to Valley Fever.</p> | <p>Mitigation: Implement Mitigation Measures 3.4-1 and 3.4-2.</p> <p>Mitigation Measure 3.4-8: Valley Fever. During heavy grading where the top 12–18 inches of soil would be disturbed, and in locations with potential Valley Fever fungal spores, applicants for projects facilitated by the Draft 2045 CAP measures shall require construction contractors to comply with the following measures as feasible to reduce potential Valley Fever impacts:</p> <ul style="list-style-type: none"> • Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations. • Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems. • Require crews to work upwind from excavation sites where possible. • Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. • During rough grading and construction, ensure that the access way into the project site from adjoining paved roadways is paved or treated with environmentally safe dust control agents. | <p>Less than Significant</p> |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|---|
| Air Quality (cont.) | | |
| Impact 3.4-4: The Draft 2045 CAP measures and actions would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. | None required. | Less than Significant |
| Impact 3.4-5: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable contribution to a significant cumulative impact due to a conflict with or obstruction of implementation of the applicable air quality plan. | Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, and 3.4-3. | Significant and Unavoidable. |
| Impact 3.4-6: The Draft 2045 CAP would make a cumulatively considerable contribution to a significant cumulative impact to air quality associated with criteria pollutants. | Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, and 3.4-5. | Significant and Unavoidable. |
| Impact 3.4-7: The Project, as a result of projects facilitated by the Draft 2045 CAP, could contribute to a significant cumulative impact to air quality associated with localized air pollutant and TAC emissions. | Mitigation: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, 3.4-6, 3.4-7, and 3.4-8. | Significant and Unavoidable for localized air pollutant and TAC emissions Less than Significant for Valley Fever |
| Impact 3.4-8: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact due to other emissions (such as those leading to odors) adversely affecting a substantial number of people. | None required. | Less than Significant |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| Biological Resources | | |
| <p>Impact 3.5-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial direct adverse impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.</p> | <p>Mitigation Measure 3.5-1: The County shall require biological resources to be analyzed on a project-specific level by a qualified biological consultant. Prior to or during the preparation of project-level environmental documents, and prior to the start of construction activities, a biological resources assessment shall be conducted to characterize the project site. Suitable buffer areas surrounding the project site shall be included where native habitat is contiguous with off-site habitat areas. The assessment and analysis shall emphasize identifying endangered, threatened, rare, and other special-status species; regionally and locally unique species; and sensitive natural communities, jurisdictional waters, and oak woodlands. Focused surveys shall be conducted as necessary to determine the presence of special-status species (e.g., focused sensitive plant or wildlife surveys). Focused surveys shall be conducted according to established CDFW or USFWS protocols, if available for the object species. Natural communities shall be mapped and identified according to floristic alliance- and/or association-based mapping protocols consistent with CDFW natural communities. A jurisdictional delineation may be required if there are signs of potentially regulated wetlands and non-wetland waters. A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze direct and indirect impacts on biological resources, and propose mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as those species with potential to occur on-site).</p> <p>Mitigation Measure 3.5-2: If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as described in Mitigation Measure 3.5-1) shall include a mitigation measure requiring pre-construction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. The mitigation measures shall also include consultation with and obtaining permits from USFWS or CDFW prior to construction, if required by FESA or CESA for listed endangered and threatened species. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite habitat areas. Relocation of such species into areas of appropriate restored habitat would have the best chance of replacing/incrementing populations that are lost due to habitat converted to development. Relocation to restored habitat areas shall be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume.</p> | <p>Less than Significant</p> |
| <p>Impact 3.5-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.</p> | <p>Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2.</p> | <p>Significant and Unavoidable</p> |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| Biological Resources (cont.) | | |
| <p>Impact 3.5-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.</p> | <p>Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-5.</p> | Significant and Unavoidable |
| <p>Impact 3.5-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.</p> | <p>Mitigation: Implement Mitigation Measure 3.5-1. Mitigation Measure 3.5-3: Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project applicant shall obtain a Clean Water Act Section 404 permit from USACE, a Clean Water Act Section 401 certification from the RWQCB, and a Streambed Alteration Agreement/LSAA permit under Section 1602 of the California Fish and Game Code from CDFW, where the project warrants.</p> | Less than Significant |
| <p>Impact 3.5-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.</p> | <p>Mitigation: Implement Mitigation Measure 3.5-1. Mitigation Measure 3.5-4: Proponents for individual projects facilitated by the Draft 2045 CAP provisions shall analyze impacts on wildlife movement and corridors that may introduce new or additional barriers to wildlife dispersal or constrain existing wildlife corridors to future movement, or indirect impacts constraining future wildlife movement. Where projects may interfere with wildlife movement, alternative designs shall be included in the analysis to reduce wildlife movement impacts. Corridors, linkages, and pinch points shall not be entirely closed by any development, and partial mitigation shall be mandatory for project-specific impacts on wildlife corridors and wildlife nursery sites. This shall include provision of a minimum of half the corridor width. (The width shall be at least what is needed to remain connective for the top predators using the corridor.) Mitigation can include preservation by deed in perpetuity of other parts of the wildlife corridor connecting through the development area; it can include native landscaping to provide cover on the corridor. For nursery site impacts, mitigation shall include preservation by deed in perpetuity for another comparable nursery site of the same species.</p> | Significant and Unavoidable |
| <p>Impact 3.5-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.).</p> | <p>Mitigation: Implement Mitigation Measure 3.5-1. Mitigation Measure 3.5-5: Proponents of projects resulting in the loss of oak woodlands shall mitigate with in-kind replacement habitat at a minimum of 1:1 mitigation ratio documented through a County-approved habitat mitigation plan. The plan shall include the number of replacement trees (or acreage and average density of woodland), location of replacement woodland, understory habitat components, sequencing for any phased tree removal, and performance standards for mitigation. The plan shall include monitoring for a minimum of five years, with annual reports submitted to the County. For oak woodlands impacts, project mitigation shall be consistent with recommendations in the County's Oak Woodland Conservation Management Plan and its 2014 Guide. If a project cannot be redesigned to avoid impacts to oak woodlands, an appropriate mitigation strategy would be developed by selecting from the Guide's list of recommended mitigation measures, prioritizing the acquisition of oak woodland habitat comparable to the habitat that as affected over the restoration of degraded off-site and in-lieu fees. A Mitigation Monitoring Plan consistent with the Guide's recommendations would be prepared and implemented.</p> | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| Biological Resources (cont.) | | |
| <p>Impact 3.5-7: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.</p> | <p>Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2.</p> | Significant and Unavoidable |
| <p>Impact 3.5-8: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.</p> | <p>Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-5.</p> | Significant and Unavoidable |
| <p>Impact 3.5-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a substantial cumulative adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.</p> | <p>Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-3.</p> | Less than Significant |
| <p>Impact 3.5-10: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative impact relating to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites.</p> | <p>Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-4.</p> | Significant and Unavoidable |
| <p>Impact 3.5-11: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to the cumulative conversion of oak woodlands or other unique native woodlands.</p> | <p>Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-5.</p> | Significant and Unavoidable |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| Cultural Resources | | |
| <p>Impact 3.6-1: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.</p> | <p>Mitigation Measure 3.6-1: Historic Resources Assessment. Prior to demolition or alteration of buildings and/or structures or the construction of aboveground infrastructure with potentially significant impacts on historic architectural resources, the project proponent shall retain an architectural historian meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738-44739) (Qualified Architectural Historian) to conduct a historic resources assessment of affected properties. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a review of other pertinent archives and sources; a pedestrian field survey; recordation of all identified historic architectural resources on California Department of Parks and Recreation (DPR) 523 forms; evaluation of resources which may be eligible for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment for each future project facilitated by 2045 CAP measures and actions. If a historic architectural resource is found eligible by the Qualified Architectural Historian, then the Qualified Architectural Historian shall coordinate with the project proponent and the County to ensure the project is constructed in conformance with the Secretary of the Interior's Standards. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to historic resources assessments and Secretary of the Interior's Standards plan reviews).</p> <p>Mitigation Measure 3.6-2: Archaeological Resources Assessment. Prior to conducting construction activities that would involve ground disturbance, the project proponent shall retain an archaeologist meeting the minimum PQS set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738-44739) (Qualified Archaeologist) to conduct an archaeological resources assessment. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a Sacred Lands File search at the California Native American Heritage Commission (NAHC); geoarchaeological review including a focused assessment of land use history and any available geotechnical data to assess the potential for subsurface archaeological resources; a pedestrian field survey in instances where ground surface is exposed; recordation of all identified archaeological resources on DPR 523 forms; evaluation of resources affected by the project for eligibility for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment. Resources that do not qualify as historical resources shall be considered by the Qualified Archaeologist for qualification as unique archaeological resources as defined in Public Resources Code Section 21083.2(g). The technical report also shall provide recommendations as to whether additional studies are warranted to further identify or evaluate archaeological resources (i.e., Extended Phase I boundary delineation, Phase II testing and evaluation) and if archaeological monitoring and Native American monitoring of ground disturbing activities is warranted (e.g., in areas where there is a higher potential to encounter buried resources). Prior to the initiation of field work for any Extended Phase I or Phase II investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation's objectives, goals, and methodology. When developing a work plan for Native American resources, the County shall consult with local Native American tribes. If archaeological/Native American monitoring</p> | <p>Less than Significant</p> |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|------------------------------------|--|--|
| Cultural Resources (cont.) | | |
| <p>Impact 3.6-1 (cont.)</p> | <p>is warranted, the Qualified Archaeologist shall determine the locations and duration of monitoring and reporting requirements. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to archaeological resources assessments, Extended Phase I and Phase II reports, and monitoring reports).</p> <p>Mitigation Measure 3.6-3: Construction Worker Cultural Resources Sensitivity Training. For projects with ground-disturbing activities that may encounter potentially significant archaeological resources, the Qualified Archaeologist shall implement a cultural resources sensitivity training program. The Qualified Archaeologist, or its designee, shall instruct all construction personnel of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, applicable laws protecting archaeological resources, and confidentiality of discoveries. Native American monitor(s) shall be invited to participate in presenting tribal perspectives as part of the training curriculum. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. The project proponent or its contractors shall ensure construction personnel are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County.</p> <p>Mitigation Measure 3.6-4: Archaeological Resources Discoveries. In the event archaeological resources are encountered during construction of a project, the project proponent shall cease all activity within 50 feet of the find shall cease. The discovery shall be evaluated for significance by the Qualified Archaeologist. When assessing significance and developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. If the Qualified Archaeologist determines that the resource is significant (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), the Qualified Archaeologist shall provide a method for avoidance and preservation in place, which shall be the preferred manner of mitigating impacts. If avoidance is infeasible, the Qualified Archaeologist shall develop a Phase III Archaeological Resources Data Recovery and Treatment Plan consistent with Mitigation Measure 3.6-5. The Qualified Archaeologist also shall determine, based on the initial assessment of the discovery, whether the 50-foot buffer may be reduced. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to Extended Phase I, Phase II, and Phase III reports).</p> <p>Mitigation Measure 3.6-5: Treatment of Archaeological Resources. If the assessment conducted under Mitigation Measure 3.6-2 or Mitigation Measure 3.6-4 identifies significant archaeological resources (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), then avoidance and preservation in place shall be the preferred manner of mitigating impacts. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance and preservation in place of significant archaeological resources is determined by the County to be infeasible, then the Qualified Archaeologist shall prepare a Phase III Archaeological Resources Data Recovery and Treatment Plan. The plan shall include: a detailed research design; justification for data recovery or other treatment methods depending on the nature of the resource's eligibility; excavation methodology; and, reporting</p> | |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| Cultural Resources (cont.) | | |
| Impact 3.6-1 (cont.) | <p>and curation requirements. When developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. All Phase III reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center.</p> <p>Mitigation Measure 3.6-6: Curation and Disposition of Cultural Materials. The project proponent shall arrange curation for all Native American archaeological materials, with the exception of funerary objects or grave goods (i.e., artifacts associated with Native American human remains). For significant Native American archaeological materials, the project proponent shall first consider repositories that are accredited by the American Association of Museums and that meet the standards outlined in 36 CFR 79.9. If a suitable accredited repository is not identified, then the project proponent shall consider nonaccredited repositories as long as they meet the minimum standards set forth by 36 CFR 79.9. If a suitable nonaccredited repository is not identified, then the project proponent shall donate the collection to a local California Native American tribe(s). Nonsignificant archeological materials shall be donated to a local California Native American tribe(s). If neither an accredited or nonaccredited repository or tribe accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes. Disposition of Native American human remains and associated funerary objects or grave goods shall be determined by the landowner in consultation with the County and the MLD.</p> <p>The project proponent shall curate all significant historic-period archaeological material, or portions thereof at the discretion of the Qualified Archaeologist, at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then the project proponent may curate it at a nonaccredited repository as long as it meets the minimum standards set forth in 36 CFR 79.9. If neither an accredited nor a nonaccredited repository accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes.</p> | |
| Impact 3.6-2: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. | Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6. | Less than Significant |
| Impact 3.6-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. | Mitigation Measure 3.6-7: Paleontological Resources Assessment and Monitoring. For projects facilitated by Draft 2045 CAP measures and actions that involve ground disturbance, the project proponent shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for qualified professional paleontologist (Qualified Paleontologist) to prepare a paleontological resources assessment report prior to the start of construction activities. The report shall include methods and results of the paleontological resources assessment, monitoring requirements (including depths, frequency, and reporting), and maps that outline where monitoring is required. Monitoring shall follow SVP Guidelines: no monitoring of ground-disturbing activities within units of <i>Low Sensitivity</i> or <i>No Potential</i> ; monitoring of all ground-disturbing activities (with depths specified) in units of <i>Low to High</i> | Less than Significant |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|------------------------------------|---|--|
| Cultural Resources (cont.) | | |
| <p>Impact 3.6-3 (cont.)</p> | <p><i>Significance</i>; and at all depths within units of <i>High Significance</i> unless the Qualified Paleontologist’s report identifies previous disturbances or the use of construction methods which do not warrant monitoring; and monitoring at the initiation of excavation in units of <i>Undetermined Significance</i>. The report also shall stipulate whether screen washing is necessary to recover small specimens following SVP Guidelines and determine whether unique geologic features are present onsite. If monitoring is conducted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit it to the project proponent and the County.</p> <p>Mitigation Measure 3.6-8: Paleontological Resources Sensitivity Training. Prior to the start of ground-disturbing activities for projects facilitated by Draft 2045 CAP measures and actions with potentially significant impacts on paleontological resources, the Qualified Paleontologist or its designee shall conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers. Construction workers shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The project proponent shall ensure that construction workers are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County.</p> <p>Mitigation Measure 3.6-9: Paleontological Discoveries. If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area determined by the paleontological monitor shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor’s discretion, and to reduce any construction delay, the grading/excavation contractor shall assist, where feasible, in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes.</p> <p>If construction workers discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described earlier in this measure.</p> <p>Any salvage reports resulting from implementation of this measure shall be filed with the Natural History Museum of Los Angeles County.</p> | |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|--|--|
| Cultural Resources (cont.) | | |
| <p>Impact 3.6-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would disturb any human remains, including those interred outside of dedicated cemeteries.</p> | <p>Mitigation Measure 3.6-10: Human Remains Discoveries. If human remains are encountered, then the project proponent or its contractor shall immediately halt work within 50 feet of the discovery and contact the County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, which require that no further disturbance shall occur until the County Coroner has made the necessary findings as to the remains' origin and disposition. If the County Coroner determines that the remains are Native American, then the County Coroner will notify the NAHC within 24 hours in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98. The NAHC shall then identify the person(s) thought to be the MLD. The MLD may, with the permission of the land owner, or their authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. The project proponent, County, and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.</p> <p>Until the project proponent, the County, and the landowner have conferred with the MLD, the contractor shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected according to generally accepted cultural or archaeological standards or practices (e.g., the <i>NAHC's A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods</i> [NAHC 2022], which reiterates statutory requirements), and that further activities take into account the possibility of multiple burials.</p> <p>If the NAHC is unable to identify an MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Public Resources Code Section 5097.94(k), if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.</p> | Less than Significant |
| <p>Impact 3.6-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on historical resources.</p> | <p>Mitigation: Implement Mitigation Measures 3.6-1 through 3.6-6.</p> | Less than Significant |
| <p>Impact 3.6-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on unique archaeological resources.</p> | <p>Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.</p> | Less than Significant |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| Cultural Resources (cont.) | | |
| Impact 3.6-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on unique paleontological resources or sites or unique geologic features. | Mitigation: Implement Mitigation Measures 3.6-7 through 3.6-9. | Less than Significant |
| Impact 3.6-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on human remains, including those interred outside of dedicated cemeteries. | Mitigation: Implement Mitigation Measure 3.6-10. | Less than Significant |
| Energy | | |
| Impact 3.7-1: The Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. | None required. | No Impact |
| Impact 3.7-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. | None required. | No Impact |
| Impact 3.7-3: The project would not result in a significant cumulative impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. | None required. | No Impact. |
| Geology and Soils | | |
| Impact 3.8-1: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace. | None required. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---------------------|--|
| Geology and Soils (cont.) | | |
| Impact 3.8-2: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. | None required. | Less than Significant |
| Impact 3.8-3: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading. | None required. | Less than Significant |
| Impact 3.8-4: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides. | None required. | Less than Significant |
| Impact 3.8-5: The Project would not result in substantial soil erosion or loss of topsoil. | None required. | Less than Significant |
| Impact 3.8-6: The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. | None required. | Less than Significant |
| Impact 3.8-7: The Project would not be located on expansive soil, creating substantial direct or indirect risks to life or property. | None required. | Less than Significant |
| Impact 3.8-8: The Project would not have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater. | None required. | Less than Significant |
| Impact 3.8-9: The Project would not conflict with the Hillside Management Area Ordinance. | None required. | Less than Significant |
| Impact 3.8-10: The Project would result in less-than-significant cumulative impacts related to geology and soils. | None required. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|--|--|
| Greenhouse Gas Emissions | | |
| Impact 3.9-1: The Draft 2045 CAP would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. | None required. | Less than Significant |
| Impact 3.9-2: The Draft 2045 CAP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. | None required. | Less than Significant |
| Hazards and Hazardous Materials | | |
| Impact 3.10-1: Projects facilitated by the Draft 2045 CAP would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. | None required. | Less than Significant |
| Impact 3.10-2: The Project, as a result of solar PV and other projects facilitated by the Draft 2045 CAP measures and actions, could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. | Mitigation Measure 3.10-2: The County shall require applicants of solar PV installation projects that include the use of CdTe modules to dispose of panels or recycle panels in accordance with current local, state, and federal regulations. Broken and end-of-project-life PV modules, materials, and components shall be: <ul style="list-style-type: none"> • Stored on-site in a manner that complies with federal and state laws until recycling or disposal actions can be taken. • Stored on-site no longer than allowed by federal and state laws. • Recycled in accordance with federal and state laws applicable at that time. | Less than Significant |
| Impact 3.10-3: Projects facilitated by the Draft 2045 CAP would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. | Mitigation: Implement Mitigation Measure 3.10-2. | Less than Significant |
| Impact 3.10-4: Projects facilitated by the Draft 2045 CAP may be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. | None required. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| Hazards and Hazardous Materials (cont.) | | |
| Impact 3.10-5: Projects facilitated by the Draft 2045 CAP would not, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area. | None required. | Less than Significant |
| Impact 3.10-6: Projects facilitated by the Draft 2045 CAP would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. | Mitigation: Implement Mitigation Measure 3.15-1. | Less than Significant |
| Impact 3.10-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. | None required | Less than Significant |
| Impact 3.10-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. | Mitigation: Implement Mitigation Measure 3.10-2. | Less than Significant |
| Impact 3.10-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses. | Mitigation: Implement Mitigation Measure 3.10-2. | Less than Significant |
| Impact 3.10-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impacts related to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. | None required. | Less than Significant |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| Hazards and Hazardous Materials (cont.) | | |
| Impact 3.10-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative safety hazards or excessive noise for people residing or working in the project area. | None required. | Less than Significant |
| Impact 3.10-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. | Mitigation: Implement Mitigation Measure 3.15-1. | Less than Significant |
| Hydrology and Water Quality | | |
| Impact 3.11-1: Projects facilitated by the Draft 2045 CAP would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. | None required. | Less than Significant |
| Impact 3.11-2: Projects facilitated by the Draft 2045 CAP would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. | None required. | Less than Significant |
| Impact 3.11-3: Projects facilitated by the Draft 2045 CAP would not substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding. | None required. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| Hydrology and Water Quality (cont.) | | |
| Impact 3.11-4: Projects facilitated by the Draft 2045 CAP would not otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements. | None required. | Less than Significant |
| Impact 3.11-5: Projects facilitated by the Draft 2045 CAP would not, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. | Mitigation: Implement Mitigation Measure 3.10-2. | Less than Significant |
| Impact 3.11-6: Projects facilitated by the Draft 2045 CAP would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | None required. | Less than Significant |
| Impact 3.11-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. | None required. | Less than Significant |
| Impact 3.11-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative decreases groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. | None required. | Less than Significant |
| Impact 3.11-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative alterations to the existing drainage pattern of the site or area. | None required. | Less than Significant |
| Impact 3.11-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements. | None required. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| Hydrology and Water Quality (cont.) | | |
| Impact 3.11-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. | Mitigation: Implement Mitigation Measure 3.10-2. | Less than Significant |
| Impact 3.11-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | None required. | Less than Significant |
| Land Use and Planning | | |
| Impact 3.12-1: Projects facilitated by the Draft 2045 CAP would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. | None required. | Less than Significant |
| Impact 3.12-2: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. | None required. | Less than Significant |
| Noise | | |
| Impact 3.13-1: Projects facilitated by the Draft 2045 CAP could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. | Mitigation Measure 3.13-1: Construction Noise. Construction activities associated with new projects facilitated by the Draft 2045 CAP that occur within 500 feet of noise-sensitive receptors (i.e., residences, parks, schools, historic sites, cemeteries, and recreation areas) shall be evaluated by the project applicant for noise impacts that would result in a 5 dBA increase over existing ambient noise levels at any sensitive receptor. Mitigation measures such as installing temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures; equipping construction equipment with more effective mufflers, sound-insulating hoods or enclosures, vibration dampers, and other Best Available Control Technology (BACT); and reducing non-essential idling of construction equipment to no more than five minutes shall be incorporated into construction activities to reduce construction-related noise. | Significant and Unavoidable |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|--|--|
| Noise (cont.) | | |
| Impact 3.13-1 (cont.) | Mitigation Measure 3.13-2: Stationary-Source Noise. For any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) exposed to project stationary-source noise levels in excess of applicable standards in the Los Angeles County Noise Ordinance, the project applicant shall submit an acoustic analysis prior to project approval. The acoustic analysis shall identify site design features (e.g., setbacks, berms, parapets, equipment enclosures, equipment mufflers, sound walls, or other similar noise control device or noise barrier) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the County's Noise Compatibility Criteria, the California Building Code, and the California Noise Insulation Standards (Title 24 of the California Code of Regulations). | Significant and Unavoidable |
| Impact 3.13-2: Projects facilitated by the Draft 2045 CAP could generate excessive groundborne vibration or groundborne noise levels. | Mitigation Measure 3.13-3: Construction Vibration. Individual projects that use vibration-intensive construction equipment, such as pile drivers, jackhammers, and vibratory rollers near vibration-sensitive receptors shall be evaluated by the applicant for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses (i.e., exceed the County's standard of 0.01 inches per second (in/sec) vibration velocity [within the range of 1 to 100 Hz frequency]), additional requirements shall be implemented during construction, such as the use of less-vibration-intensive equipment or vibration-reduction construction techniques or strategies (e.g., drilled piles to eliminate the use of a vibration-intensive pile driver, increased setback distances). | Significant and Unavoidable |
| Impact 3.13-3: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact related to the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. | Mitigation: Implement Mitigation Measures 3.13-1 and 3.13-2. | Significant and Unavoidable |
| Impact 3.13-4: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact relating to the generation of excessive groundborne vibration or groundborne noise levels from construction activities. | Mitigation: Implement Mitigation Measure 3.13-3. Mitigation Measure 3.13-4: New Development Near Railroad Tracks. New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 in/sec RMS for residential uses. | Significant and Unavoidable |
| Population and Housing | | |
| Impact 3.14-1: Projects facilitated by the Draft 2045 CAP would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). | None required. | Less than Significant |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| Population and Housing (cont.) | | |
| <p>Impact 3.14-2: Projects facilitated by the Draft 2045 CAP would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.</p> | None required. | Less than Significant |
| <p>Impact 3.14-3: Projects facilitated by the Draft 2045 CAP would cause or make a cumulatively considerable contribution to any significant cumulative impact relating to the inducement of substantial unplanned population growth in an area, either directly or indirectly.</p> | None required. | Less than Significant |
| <p>Impact 3.14-4: Projects facilitated by the Draft 2045 CAP would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.</p> | None required. | Less than Significant |
| Transportation | | |
| <p>Impact 3.15-1: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would conflict with an applicable program plan, ordinance, or policy addressing the circulation system.</p> | <p>Mitigation Measure 3.15-1, Traffic Control Plan: The County shall require project applicants and construction contractors to coordinate with relevant County departments, transit providers, and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on transit service, roadway operations, emergency responders, pedestrian and bicycle facilities, and public safety in the surrounding area. (A traffic control plan may not be required for minor construction activities.) The project applicant shall be responsible for monitoring to ensure that the plan is effectively implemented by the construction contractor(s). Measures that may be employed throughout the course of the construction period include, but are not limited, to the following.</p> <ul style="list-style-type: none"> • Provide advance notice of lane and sidewalk closures, durations, and alternative routes to emergency service providers, motorists, bicyclists, and pedestrians. • Provide clearly marked pedestrian detours if any sidewalk or pedestrian walkway closures are necessary. • Provide clearly marked bicycle detours if heavily used bicycle routes must be closed, or if bicyclist safety may otherwise be comprised. • Provide crossing-guards and/or flag persons as needed to avoid traffic conflicts and ensure pedestrian and bicyclist safety. • Locate all stationary equipment as far as possible from areas used heavily by vehicles, bicyclists, and pedestrians. • Use nonskid traffic plates over open trenches to reduce hazards. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| Transportation (cont.) | | |
| Impact 3.15-1 (cont.) | <ul style="list-style-type: none"> • Implement traffic control measures to reduce vehicle travel delays through construction zones. • Maintain acceptable response times and performance objectives for emergency response services. • Avoid routing construction traffic through residential areas to the extent feasible. • Prohibit mobilization and demobilization of heavy construction equipment during AM and PM peak traffic hours. • Maintain access for driveways and private roads outside the immediate construction zone by using steel plates or temporary backfill, as necessary. • Provide designated areas for construction worker parking wherever feasible to reduce use of parking on streets or in city center areas. | |
| Impact 3.15-2: Projects facilitated by the Draft 2045 CAP would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). | None required. | Less than Significant |
| Impact 3.15-3: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | Mitigation: Implement Mitigation Measure 3.15-1. | Less than Significant |
| Impact 3.15-4: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict with an applicable program plan, ordinance or policy addressing the circulation system. | Mitigation: Implement Mitigation Measure 3.15-1. | Less than Significant |
| Impact 3.15-5: The Project would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict or inconsistency with CEQA Guidelines Section 15064.3(b). | None required. | Less than Significant |
| Impact 3.15-6: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to a substantial increase in hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | Mitigation: Implement Mitigation Measure 3.15-1. | Less than Significant |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| Tribal Cultural Resources | | |
| <p>Impact 3.16-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c).</p> | <p>Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.</p> <p>Mitigation Measure 3.16-1: AB 52 Consultation. Consistent with AB 52, before the release of a negative declaration, mitigated negative declaration, or EIR, the County shall initiate consultation within 14 days of a decision to undertake a project facilitated by Draft 2045 CAP measures or actions. The County shall provide formal notification to the designated contact of, or a tribal representative of, each traditionally and culturally affiliated California Native American tribe that has requested notice. The County shall begin the consultation process within 30 days after receiving a California Native American tribe's request for consultation. The purpose of the consultation shall be to identify sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that meet the definition of tribal cultural resources provided in CEQA Section 21074(a)(1) or Section 21074(a)(2). In addition, the California Native American tribe may request consultation regarding the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation.</p> <p>If tribal cultural resources are identified, the County shall implement mitigation measures that could avoid or substantially lessen significant impacts on such resources, including but not limited to the measures recommended in Public Resources Code Section 21084.3, or shall implement alternatives that would avoid significant impacts on the tribal cultural resources. Such measures shall be implemented in consultation with the California Native American tribe.</p> | <p>Less than Significant</p> |
| <p>Impact 3.16-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c).</p> | <p>Mitigation: Implement Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6.</p> | <p>Less than Significant</p> |
| Utilities and Service Systems | | |
| <p>Impact 3.17-1: Projects facilitated by the Draft 2045 CAP would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.</p> | <p>Mitigation: Implement Mitigation Measures 3.4-1 through 3.4-4; Mitigation Measures 3.5-1 through 3.5-6; Mitigation Measures 3.6-1 through 3.6-10; Mitigation Measure 3.10-2; Mitigation Measures 3.13-1 through 3.13-4; and Mitigation Measure 3.15-1.</p> | <p>Significant and Unavoidable</p> |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| Utilities and Service Systems (cont.) | | |
| Impact 3.17-2: Projects facilitated by the Draft 2045 CAP would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. | None required. | Less than Significant |
| Impact 3.17-3: Projects facilitated by the Draft 2045 CAP would result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. | Mitigation: Implement Mitigation Measures 3.4-1 3.4-4; Mitigation Measures 3.5-1 through 3.5-6; Mitigation Measures 3.6-1 through 3.6-10; Mitigation Measure 3.10-2; Mitigation Measures 3.13-1 through 3.13-4; and Mitigation Measure 3.15-1. | Significant and Unavoidable |
| Impact 3.17-4: Projects facilitated by the Draft 2045 CAP would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. | None required. | Less than Significant |
| Impact 3.17-5: Projects facilitated by the Draft 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. | Mitigation: Implement Mitigation Measures 3.4-1 through 3.4-4; Mitigation Measures 3.5-1 through 3.5-6; Mitigation Measures 3.6-1 through 3.6-10; Mitigation Measure 3.10-2; Mitigation Measures 3.13-1 through 3.13-4; and Mitigation Measure 3.15-1. | Significant and Unavoidable |
| Impact 3.17-6: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to insufficient water supplies. | None required. | Less than Significant |
| Impact 3.17-7: Projects facilitated by the Draft 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to inadequate wastewater treatment capacity. | Mitigation: Implement Mitigation Measures 3.4-1 through 3.4-4; Mitigation Measures 3.5-1 through 3.5-6; Mitigation Measures 3.6-1 through 3.6-10; Mitigation Measure 3.10-2; Mitigation Measures 3.13-1 through 3.13-4; and Mitigation Measure 3.15-1. | Significant and Unavoidable |

**TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|--|--|
| Utilities and Service Systems (cont.) | | |
| <p>Impact 3.17-8: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.</p> | None required. | Less than Significant |
| Wildfire | | |
| <p>Impact 3.18-1: Projects facilitated by the Draft 2045 CAP would not substantially impair an adopted emergency response plan or emergency evacuation plan.</p> | Mitigation: Implement Mitigation Measure 3.15-1. | Less than Significant |
| <p>Impact 3.18-2: Projects facilitated by the Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and would not thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.</p> | None required. | Less than Significant |
| <p>Impact 3.18-3: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment.</p> | <p>Mitigation Measure 3.18-3: Fire Safety During Construction and Operation. Future applicants and/or their contractors shall prepare and implement project-specific fire protection plans for projects located in the VHFHSZ to ensure that wildfire-related hazards are not exacerbated by projects facilitated by the Draft 2045 CAP measures or goals. The applicant shall prepare and submit a fire protection plan to the County for review and approval at least 60 days before the start of construction activities. The fire protection plan shall include or require, but not be limited to, the following measures along with Fire Code compliance, as applicable to address construction and operation:</p> <ul style="list-style-type: none"> • A training module within the pre-construction worker training (e.g., Worker Environmental Awareness training, safety training, fire equipment and procedures) on the specifics of the approved plan for all construction crew members before the start of construction. • List project site roles and responsibilities and identify appropriate emergency notification procedures and site-specific emergency response and evacuation measures and routes that would be followed during emergency situations. All construction vehicles shall have fire suppression equipment. • Instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site. • Protocol for the project contractor and/or the applicant to perform visual inspections to ensure that all ignition risks are reduced or eliminated before leaving the worksite. Identify fire safety and prevention measures for project-specific infrastructure that can ignite fires, such as power lines, battery storage facilities, and composting facilities. | Less than Significant |

TABLE ES-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| Wildfire (cont.) | | |
| Impact 3.18-4: Projects facilitated by the Draft 2045 CAP would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. | None required. | Less than Significant |
| Impact 3.18-5: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. | Mitigation: Implement Mitigation Measure 3.18-3. | Less than Significant |
| Impact 3.18-6: Projects facilitated by the Draft 2045 CAP could result in significant cumulative impacts with regard to impairing an adopted emergency response plan or emergency evacuation plan. | Mitigation: Implement Mitigation Measure 3.15-1. | Less than Significant |
| Impact 3.18-7: Projects facilitated by the Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate cumulative wildfire risks, and would not thereby expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. | None required. | Less than Significant |
| Impact 3.18-8: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment. | Mitigation: Implement Mitigation Measure 3.18-3. | Less than Significant |
| Impact 3.18-9: Projects facilitated by the Draft 2045 CAP would not expose people or structures, either directly or indirectly, to significant cumulative risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. | None required. | Less than Significant |
| Impact 3.18-10: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant cumulative risk of loss, injury, or death involving wildland fires. | Mitigation: Implement Mitigation Measure 3.18-3. | Less than Significant |

ES.3.2 Significant and Unavoidable Impacts

This PEIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by the Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about individual project implementation is known. The timeframe during which the implementation of measures and actions would cause impacts would depend on the specific implementation timing.

Section 15126.2(b) of the CEQA Guidelines requires an EIR (including a PEIR) to describe any significant impacts, including those that can be mitigated but not reduced to less-than-significant levels. The Project would have a significant and unavoidable impact regarding the resource considerations identified in **Table ES-3, Significant and Unavoidable Impacts**.

**TABLE ES-3
SIGNIFICANT AND UNAVOIDABLE IMPACTS**

| Resource Consideration | Location of Additional Details |
|--|---------------------------------------|
| Aesthetics | Section 3.2 |
| The Project, as a result of projects facilitated by the Draft 2045 CAP, would: | |
| <ul style="list-style-type: none"> • Have a substantial adverse effect on a scenic vista at the Project level (Impact 3.2-1) and cumulatively (Impact 3.2-6). • Be visible from or obstruct views from a regional riding, hiking, or multiuse trail at the Project level (Impact 3.2-2) and cumulatively (Impact 3.2-7). • Substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway at the Project level (Impact 3.2-3) and cumulatively (Impact 3.2-8). • Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.) The impact would occur at the Project level (Impact 3.2-4) and cumulatively (Impact 3.2-9). | |
| Agriculture and Forestry Resources | Section 3.3 |
| <ul style="list-style-type: none"> • Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use at the Project level (Impact 3.3-1) and cumulatively (Impact 3.3-7). • Conflict with zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract at the Project level (Impact 3.3-2) and cumulatively (Impact 3.3-8). • Involve changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use at the Project level (Impact 3.3-5) and cumulatively (Impact 3.3-11). | |
| Air Quality | Section 3.4 |
| The Project, as a result of projects facilitated by the Draft 2045 CAP, would: | |
| <ul style="list-style-type: none"> • Conflict with or obstruct implementation of the applicable air quality plan at the Project level (Impact 3.4-1) and cumulatively (Impact 3.4-5). • Result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (Impact 3.4-2 and Impact 3.4-6). • Potentially expose sensitive receptors to substantial pollutant concentrations associated with localized air pollutant toxic air contaminant (TAC) emissions (Impact 3.4-3a) and cumulatively (Impact 3.4-7). | |

TABLE ES-3 (CONTINUED)
SIGNIFICANT AND UNAVOIDABLE IMPACTS

| Resource Consideration | Location of Additional Details |
|---|---------------------------------------|
| Biological Resources | Section 3.5 |
| <p>The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would:</p> <ul style="list-style-type: none"> • Have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). This impact would be significant and unavoidable at the Project level (Impact 3.5-2) and cumulatively (Impact 3.5-7). • Have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS at the Project level (Impact 3.5-3) and cumulatively (Impact 3.4-8). • Interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This impact would be significant and unavoidable at the Project level (Impact 3.5-5) and cumulatively (Impact 3.5-10). • Contribute to the cumulative conversion of oak woodlands or other unique native woodlands (Impact 3.5-11). | |
| Noise | Section 3.13 |
| <p>The Project, as a result of projects facilitated by the Draft 2045 CAP, could:</p> <ul style="list-style-type: none"> • Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact would be significant and unavoidable at the Project level (Impact 3.13-1) and cumulatively (Impact 3.13-3). • Generate excessive groundborne vibration or groundborne noise levels. This impact would be significant and unavoidable at the Project level (Impact 3.13-2) and cumulatively (Impact 3.13-4). | |
| Utilities and Service Systems | Section 3.17 |
| <ul style="list-style-type: none"> • Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects at the Project level (Impact 3.17-1) and cumulatively (Impact 3.17-5). • Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments at the Project level (Impact 3.17-3) and cumulatively (Impact 3.17-7). | |

ES.4 Alternatives

CEQA requires a lead agency to analyze a reasonable range of alternatives to the project that could feasibly attain the basic objectives of the project while substantially reducing or eliminating significant environmental effects. CEQA also requires a PEIR to evaluate a “no project” alternative to allow decision makers to compare the impacts of approving a project with the impacts of not approving it. The alternatives development process, alternatives eliminated from further consideration, and alternatives considered in the PEIR are described in greater detail in Chapter 4, *Alternatives*.

ES.4.1 Alternatives Eliminated from Further Consideration

Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects (CEQA Guidelines Section 15126.6[c]). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines Section 15126[f][2]). The potential alternatives listed below were eliminated from further consideration in this PEIR because they failed to meet most of the Project

objectives, were infeasible, and/or did not avoid or substantially reduce any significant environmental effects. See Section 4.3, *Alternatives Rejected from Detailed Consideration*, in Chapter 4, *Alternatives*, for details.

- Carbon Neutrality Target by 2045 Alternative
- More Aggressive Timeline to Carbon Neutrality Alternative
- Minimize Loss of Carbon Sequestration Caused by Development Alternative
- Substantially Reduced Vehicle Miles Traveled Alternative
- Aquatic Impact Avoidance Alternative
- Complete Phase-Out of Oil and Gas Operations by 2030 Alternative
- Limited-Scope CAP Alternative

ES.4.2 Alternatives Analyzed in Detail

The reasonable range of alternatives analyzed in this Recirculated Draft PEIR is summarized below. Three alternatives to the Project are considered in detail. These alternatives were selected for more detailed consideration through the screening process described in greater detail in Section 4.2, *Alternatives Development and Screening*.

ES.4.2.1 No Project Alternative

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate the impacts of a no project alternative to enable a comparison of the potential environmental consequences that would result with and without the proposed project. In this case, the No Project Alternative examines a scenario in which the County would not approve the Draft 2045 CAP for implementation in the unincorporated areas, and none of the emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented and none of the benefits and co-benefits identified in the 2045 CAP would be realized. Further, the GHG emissions reduction strategies included in the Air Quality Element of the General Plan—known as the 2020 CCAP—expired in 2020. Accordingly, those strategies (which addressed emissions from land use, transportation, building energy, water consumption, and waste generation) would not continue to be implemented.

The No Project Alternative scenario would also include continued implementation of other plans and programs that would have the result of reducing GHG emissions to the extent that such plans and programs were adopted before January 3, 2022, when the Notice of Preparation was published. The No Project Alternative is essentially captured in the Draft 2045 CAP's Adjusted business-as-usual (BAU) forecast, which accounts for future growth under BAU conditions¹ but adjusts for federal, state, and County legislation and regulations that were implemented before

¹ The “business-as-usual, forecast assumes that no action is taken to reduce GHG emissions in the County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

development of the Draft 2045 CAP.² Further, efforts to reduce GHG emissions would continue outside the study area—for example, in incorporated areas of Los Angeles County, in adjacent jurisdictions, and in other locations outside the County where land use and related activities are governed by regional, state, or federal agencies, such as the Southern California Association of Governments, California Air Resources Board, U.S. Forest Service, and National Park Service. This alternative would not provide a clear pathway for the County to meet and exceed the statewide 2030 GHG emissions reduction goal identified in SB 32 or to meet the 2045 carbon neutrality goal established by AB 1279.

In addition, the No Project Alternative would not meet any of the Project objectives. For example, the No Project Alternative would not implement the climate action policies of the General Plan (Objective 1); would not provide a road map to achieve GHG reductions to meet the GHG emissions reduction targets (Objective 3); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (“qualified CAP”) (Objective 5). Nonetheless, as required by CEQA, the No Project Alternative has been carried forward for more detailed review.

ES.4.2.2 Alternative 1: Carbon Offset Alternative

Under Alternative 1, in addition to implementing the measures and actions called for by the Draft 2045 CAP, the County would reduce GHG emissions by purchasing carbon offsets. Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global-warming-potential gas use with a gas that has a lower global warming potential, or implement other measures. To achieve the greatest environmental co-benefits to the County, priority would be given, from highest to lowest, to offsets purchased from local projects (within Los Angeles County), regional projects (from within Southern California), projects within California, projects outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and projects elsewhere in the United States.

In January 2022, during the scoping period for this PEIR, the cost of carbon allowances in the California cap-and-trade system was approximately \$28 per metric ton (ClimateWire 2022). The compliance carbon offsets that are allowable in California’s cap-and-trade system tend to be priced about the same as allowances. However, the County would have to purchase and retire carbon offsets from the voluntary market, which is not regulated. Prices in the voluntary carbon market are generally lower, but can vary widely depending on the type, size, and location of the project generating the offset, as well as the protocol or standard under which it was developed. A spot check of over-the-counter reputable offset retailers, conducted in April 2022, reveals current prices for voluntary offsets ranging from approximately \$15 to \$25 per metric ton of carbon

² These adjustments include implementation of the California Energy Commission’s 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery’s 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (Executive Order S-01-07).

dioxide equivalent (MTCO_{2e}).³ Based on these prices, the 2022 purchase of 1.25 million MTCO_{2e} could range from \$17 million to \$36 million per year. Funding sources would have to be identified, but theoretically could be sourced from the County General Fund, existing or new development fees, or other sources.

ES.4.2.3 Alternative 2: Zero Net Energy Buildings Alternative

A building is a zero net energy (ZNE) building if it is energy-efficient and if the actual energy it consumes annually on a source-energy basis is less than or equal to the on-site renewable generated energy (California Department of General Services 2017). Stated another way, ZNE buildings produce enough renewable energy to meet their own annual energy consumption requirements, thereby reducing the use of nonrenewable energy in the building sector. These buildings achieve ZNE first through high levels of energy efficiency to minimize energy use, then through the addition of on-site renewable power generation and renewable energy storage systems (e.g., batteries).

Energy efficiency measures include building design elements that reduce energy demand such as high-performance building envelopes, air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. Energy use could be managed with efficient equipment and systems, such as energy-efficient lighting; electric lighting controls; high-performing heating, ventilation, and air-conditioning; and energy-conversion devices. Once efficiency measures have been incorporated, the remaining energy needs of the building can be met with on-site renewable energy generation and storage. Common on-site electricity generation strategies include photovoltaic solar panels on rooftops or over surface parking, and solar water heating.

In 2008, the California Public Utilities Commission (CPUC) adopted (and then in 2011, updated) the *California Energy Efficiency Strategic Plan* (CPUC 2008; Engage 360 2011). This strategic plan outlined ambitious goals for the development of ZNE buildings for the 2009 to 2020 time period. In April 2012, Governor Edmund G. Brown Jr. furthered the goals of the California Energy Efficiency Strategic Plan when he issued Executive Order B-18-12, which ordered that all new state buildings and major renovations beginning design after 2025 be constructed as ZNE facilities. The executive order included an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. Executive Order B-18-12 also directed state agencies to take measures toward achieving ZNE for 50 percent of the square footage of existing state-owned building area by 2025.

Although the strategic plan has reached its sunset, and although Executive Order B-18-12 does not directly apply to local agencies, the goals of both measures remain relevant to the reduction of GHG emissions by local governments. As the 2011 Update to the Strategic Plan recognized (Engage 360 2011):

³ Offset prices offered by four retailers were reviewed on April 11, 2022: atmosfair (<https://www.atmosfair.de/en>); CoolEffect (<https://www.cooleffect.org>), NativeEnergy (<https://native.eco>), and TerraPass (<https://www.terrapass.com>).

Local governments have significant powers that can improve the energy efficiency of new and existing buildings. ...Local governments can be significant energy end users in their own buildings and facilities, from public schools to wastewater treatment plants to City Hall. These facilities provide an opportunity to “lead by example” by improving energy efficiency, reducing CO2 emissions, and cutting government energy bills.

In addition to implementation of the Draft 2045 CAP measures and actions, a Zero Net Energy Buildings Alternative would include the following elements:

- All new residential and commercial construction in unincorporated areas of the County would be ZNE by 2025.
- 50 percent of residential and commercial buildings in unincorporated areas of the County would be retrofitted to ZNE by 2030.
- Projects in unincorporated areas of the County that voluntarily exceed state and local minimum energy codes would be rewarded with expedited permitting and favorable fee structures.
- 50 percent of new major renovations of County buildings would be ZNE by 2025.
- The energy usage footprint of local government buildings would be 50 percent below 2015 levels by 2030.

The Zero Net Energy Buildings Alternative has the potential to reduce GHG emissions and energy-related impacts of the Project, which the County has determined in Section 3.9 and Section 3.7, respectively, to be less than significant. However, this alternative also has the potential to worsen or increase the Project’s potential significant and unavoidable air quality impacts as determined in Section 3.4, related to operational criteria pollutant emissions and localized construction-related health risks from toxic air contaminants, and the Project’s potential significant and unavoidable localized noise impacts as determined in Section 3.13, as a result of the construction of ZNE buildings.

ES.4.2.4 Alternative 3: Lower Targets Alternative

Input received during the public comment period on the Draft EIR suggested an alternative with lower GHG emissions reduction targets than the Draft 2045 CAP released in spring 2022, i.e., a Lower Targets Alternative. The targets suggested by public comments were a 40 percent reduction in 1990 levels by 2030 and a 50 percent reduction in 1990 levels by 2035 to align with state-level, codified targets in place prior to AB 1279.

Under Alternative 3, the GHG emissions reduction targets of the Draft 2045 CAP would be lower than those contained in the current Draft 2045 CAP. These targets would represent the minimum targets needed to “align” with California’s codified statewide targets for 2030 and 2045.

Specifically, the targets under Alternative 3 would be:

- By 2030, reduce emissions to 31 percent below 2015 levels (equivalent to a 40 percent reduction below 1990 levels).
- By 2035, maintain the same level of GHG reductions achieved in 2030.

- By 2045, reduce emissions to 83 percent below 2015 levels (equivalent to an 85 percent reduction below 1990 levels).

These targets compare to the Draft 2045 CAP's targets of a 40 percent reduction below 2015 levels by 2030 (equivalent to a 48 percent reduction below 1990 levels), a 50 percent reduction below 2015 levels by 2035 (equivalent to a 57 percent reduction below 1990 levels), and an 83 percent reduction below 2015 levels by 2045 (equivalent to an 85 percent reduction below 1990 levels).

Note that since the public comments on the Draft EIR were received, with the passage of AB 1279, the State of California has codified the 2045 target of net zero GHG emissions and an 85 percent reduction in direct anthropogenic emissions compared to 1990 levels. AB 1279's targets are more aggressive than those in Executive Order B-55-18 (net zero emissions by 2050) and Executive Order S-3-05 (80 percent below 1990 levels by 2050). Thus, the targets evaluated under Alternative 3 differ slightly from the targets suggested by the commenters. This is also the reason that the 2045 target is the same for Alternative 3 as for the Project, given that the Draft 2045 CAP must align with the statewide targets codified in AB 1279 pursuant to Objective 2 of the Project.

To achieve the GHG emissions reduction targets under Alternative 3, fewer measures and actions would be needed, and/or performance objectives for the measures and actions would be reduced, compared to the Project. This is because the County would need to take fewer actions to reduce GHG emissions to achieve the less aggressive reduction targets. For example, Measure T6, Increase ZEV Market Share, has a 2030 performance goal of a 30 percent ZEV fleetwide percentage for light-duty vehicles in the County; under Alternative 3, this performance objective could be reduced to a 10 percent ZEV market share (or lower). These reduced performance objective could reduce or eliminate the unavoidable adverse impacts of implementation of projects facilitated by the 2045 CAP.

Alternative 3 would meet most of the Project objectives. However, if Alternative 3 is structured to substantially reduce or eliminate the unavoidable adverse impacts of the implementation of projects facilitated by the 2045 CAP, its ability to meet Project Objectives 1, 2, and 5 would be limited compared to the Project. For example, many of the Draft EIR's potential significant and unavoidable impacts arise from the construction and operation of utility-scale solar projects that may be facilitated by Measure ES2, *Procure Zero Carbon Electricity*.⁴ In order to reduce indirect impacts of utility-scale solar projects facilitated by the Draft 2045 CAP, Alternative 3 would need to reduce the performance objectives of Measure ES2. This may conflict with General Plan Policy AQ 3.9 to "Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County," in which case Alternative 3 would not meet Objective 1 of the Project.

⁴ Even though the construction of new utility-scale solar projects would not be required to achieve Project targets as proposed, this EIR conservatively assumes that new utility-scale solar projects nonetheless would be facilitated by the 2045 CAP.

Additionally, the 2030 target of 40 percent below 1990 levels is quite far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which may mean that Alternative 3 does not align with either County or state goals. Alternative 3 would likely not align with the state's GHG emissions reduction goals. This would make Alternative 3 inconsistent with Project Objectives 1, 2, and 5 unless Alternative 3 included measures and actions that align with the local strategies listed in the 2022 Scoping Plan (CARB 2022b). Inclusion of such strategies would limit the alternative's capacity to reduce significant unavoidable impacts compared to the Project, because many of the Project's potential unavoidable adverse impacts arise from projects facilitated by CAP measures and actions that align with CARB recommended priority GHG reduction strategies.

ES.4.3 Comparison of Alternatives

Recirculated Draft PEIR Section 4.6, *Comparison of Alternatives*, compares the potential environmental impacts of the Project to those of the No Project Alternative, Alternative 1, and Alternative 2. See **Table 4-4** in Chapter 4, *Alternatives*, which provides a comparative summary.

ES.4.4 Environmentally Superior Alternative

The CEQA Guidelines define the *environmentally superior alternative* as that alternative with the least adverse impacts on the project area and its surrounding environment. The No Project Alternative (Alternative 1) is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project, even though air pollutant and GHG emissions would be highest among all alternatives under the No Project Alternative. However, the No Project Alternative would fail to meet the basic objectives of the Project. Additionally, selection of the No Project Alternative would result in realization of none of the benefits identified in the Draft 2045 CAP. Because the environmentally superior alternative is the No Project Alternative, the PEIR also must identify an environmentally superior alternative from among the other alternatives. (CEQA Guidelines Section 15126.6[e][2].)

In this PEIR, Alternative 3 is considered the environmentally superior alternative for CEQA purposes because it would result in similar but less impacts in 11 resource areas relative to the Project (aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, air quality, energy, GHG emissions, hydrology and water quality, land use and planning, utilities and service systems, transportation, and wildfire) and greater impacts than the Project in two resource areas (i.e., energy and GHG emissions). Alternative 3 would have same impacts as the Project with respect to the remaining resources. See Table 4-4 in Chapter 4, *Alternatives*, for details. However, it should be noted that Alternative 3 would likely may only delay impacts as compared to the Project versus lessening these impacts or eliminating them entirely. This is because Alternative 3 has lower targets only for the years 2030 and 2035 compared to the Project; it has the same targets for the year 2045. This means that Alternative 3 would likely facilitate fewer projects through 2030 and 2035 to achieve the lesser targets, resulting in reduced impacts for these years. But Alternative 3 would likely facilitate the same number of projects through 2045, resulting in the same impacts through 2045. Consequently, Alternative 3 would delay the potential impacts but would not completely eliminate or permanently lessen these impacts.

It should be noted that Alternative 3 does have some drawbacks compared to the Project. Alternative 3's ability to meet Project Objectives 1, 2, and 5 would be limited compared to the Project. Additionally, the 2030 target of 40 percent below 1990 levels is quite far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which may mean that Alternative 3 does not align with either County or state goals. Finally Alternative 3 may exclude several recommended priority local GHG emissions reduction strategies recommended by the 2022 Scoping Plan to ensure alignment with State climate goals.

ES.5 Areas of Controversy and Issues to Be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify areas of controversy known to the lead agency. The County has identified areas of controversy as including controversial issues raised in agency and public comments received during scoping, which are included in **Appendix A.5** to this Recirculated Draft PEIR. Briefly, scoping input expressed potential controversy related to: specific elements of the Draft 2045 CAP, including on Strategies 1, 2, 3, 5, 6, 8, and 9; and the impacts of electrification, particularly including health and safety considerations associated with grid reliability in an all-electric future, and the impacts of future renewable energy development (including ground-mounted, utility-scale solar development) and related infrastructure that could be facilitated by Draft 2045 CAP measures and actions.

Additional areas of controversy made known to the County as a result of agency and public comment letters submitted on the original Draft EIR include the potential for projects facilitated by Draft 2045 CAP measures and actions to cause conversion of oak woodlands or other unique native woodlands or wastewater treatment capacity issues, and whether the County should adopt a 2045 CAP with either more or less aggressive GHG reduction targets than the ones proposed.

Section 15123(b)(3) of the CEQA Guidelines also requires that an EIR identify issues to be resolved, which include the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Choose among alternatives.
- Determine whether the recommended mitigation measures should be adopted or modified.
- Determine whether additional mitigation measures should be applied to the Project.

CHAPTER 1

Introduction

1.1 Project Overview

The Draft *2045 Los Angeles County Climate Action Plan* (2045 CAP or Project) would require an amendment to the *Los Angeles County General Plan 2035* (General Plan) to replace the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP) (County Planning 2015a), which is an implementing component of the General Plan’s Air Quality Element (County Planning 2015b). In early 2020, the County of Los Angeles (County¹) released a public discussion draft of the 2045 CAP (Public Discussion Draft). After receiving comments from stakeholders, the County determined that the Public Discussion Draft would need to be substantially revised and updated. The County issued the initial Draft 2045 CAP in April 2020, and issued a revised Draft 2045 CAP in March 2023.

The following revisions to the Public Discussion Draft are reflected in the Draft 2045 CAP, as revised:

- An updated greenhouse gas (GHG) emissions inventory for 2018.
- New emissions forecasts for 2030, 2035, and 2045.
- New GHG emissions targets for 2030, 2035, and 2045.
- A suite of GHG reduction strategies, measures, and actions revised in response to public comments to be more clear, specific, feasible, and quantifiable.
- A technical modeling appendix to explain the Draft 2045 CAP’s GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- A new development review consistency checklist to allow future projects to streamline GHG emissions analyses pursuant to the California Environmental Quality Act (CEQA)² as anticipated by CEQA Guidelines Section 15183.5 by using the Draft 2045 CAP.

¹ Please note the use of the following terms in this document and the 2045 CAP: “Unincorporated Los Angeles County” refers to the unincorporated areas of Los Angeles County; “Countywide” refers to Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; and “County” refers to County of Los Angeles government.

² This analysis is being prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.) and its implementing regulations, the CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.).

1.2 Purpose of This Document

This program environmental impact report (EIR) is an informational document intended to disclose to the public and decision-makers the environmental impacts of the Draft 2045 CAP, as revised in early 2023. The County is the lead agency under CEQA and is responsible for considering adoption and implementation of the Draft 2045 CAP. The County has prepared this Recirculated Draft Program EIR (Recirculated Draft PEIR) to document its analysis of the environmental impacts of the Draft 2045 CAP described in Chapter 2, *Project Description*, and the alternatives described in Chapter 4, *Alternatives*, to assist the decision-making body in determining whether to approve the Draft 2045 CAP.

The County issued a Draft PEIR for the Draft 2045 CAP on May 25, 2022. After the July 18, 2022 conclusion of the comment period for the Draft PEIR, the County elected to revise the Draft 2045 CAP in response to public and other input received, and to transition the 2045 CAP's aspirational goal of carbon neutrality by 2045 into a target consistent with new legislation, Assembly Bill (AB) 1279, which was enacted in September 2022 after the close of the Draft PEIR comment period.³ This Recirculated Draft PEIR describes changes to the Draft 2045 CAP in Chapter 2, *Project Description*, and analyzes the Project as revised on a resource-by-resource basis throughout Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. It also adds content to address issues raised by public comments on the Draft PEIR and makes other minor clarifications. This Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR.

All resource areas in the CEQA Guidelines Appendix G Environmental Checklist have been studied. See Appendix A.1, *Notice of Preparation and Initial Study*, regarding mineral resources, public services, and recreation. These environmental resource areas have been screened out of detailed review based on evidence that the Draft 2045 CAP would have no impact or a less-than-significant impact on the environment. For the remaining resource considerations, the Initial Study either stated that while significant impacts are not anticipated, the PEIR would provide further evaluation or determined that a potentially significant impact could result. Accordingly, in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, Sections 3.2 through 3.18 document a more detailed analysis as to whether the Draft 2045 CAP would result in significant environmental impacts on aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, transportation, tribal cultural resources, utilities and service systems, and wildfire.

1.3 Program-Level Analysis and Tiering

This is a program EIR. A *program EIR* is a type of EIR prepared pursuant to CEQA that is used to evaluate a plan or program that has multiple components or actions that are related either geographically; as logical parts in the chain of contemplated actions; in connection with application of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or

³ AB 1279 requires the state to achieve net zero GHG emissions as soon as possible, but no later than 2045 and also requires the state to reduce anthropogenic GHG emissions by 85 percent below 1990 levels.

regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways (Public Resources Code Sections 21068.5 and 21093; California Code of Regulations Title 14, Section 15168[a]). It evaluates the general impacts of the plan or program, but does not examine the potential site-specific impacts of the many individual projects that may be proposed in the future consistent with the plan.

This program EIR describes planned activities that would implement the Draft 2045 CAP and addresses related environmental impacts as comprehensively as possible, based on information reasonably available at the time the Notice of Preparation (NOP) was published. Nonetheless, this program EIR is a “first-tier” document that focuses on the “big picture” and anticipates later environmental review of specific projects.⁴

Later activities facilitated by Draft 2045 CAP goals would be examined in the light of this program EIR to determine whether an additional environmental review is needed. For example, if a later activity would have impacts that are not examined in this PEIR, then preparation of either a project-specific negative declaration or EIR could be appropriate. That later analysis may tier to this PEIR as provided in CEQA Guidelines Section 15152. The County would incorporate the mitigation measures developed in the program EIR into later activities in furtherance of the Draft 2045 CAP’s goals. Alternatively, if the County finds (pursuant to CEQA Guidelines Section 15162) that no subsequent negative declaration or EIR would be required, then the County could approve the activity as being within the scope of the project covered by this program EIR, and no additional environmental review would be required.

1.4 CEQA Process Overview

CEQA requires state and local government agencies to consider the environmental consequences (or “impacts”) of projects over which they have discretionary authority before taking action on those projects. As defined in CEQA Guidelines Section 15378, a *project* is any action that “has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.” The County considered the impacts of the Draft 2045 CAP in an initial study before determining that an EIR would provide the appropriate level of CEQA documentation for the Project. The Initial Study is included in Appendix A.1, *Notice of Preparation and Initial Study*.

1.4.1 Public Involvement

The Los Angeles County Climate Action Plan (CAP) update project began in summer 2019. The first steps of the update required gathering GHG emissions data and discussing best practice strategies for GHG emissions reductions. The initial analysis of potential emissions reductions began at the end of 2019 along with the initial drafting of an initial study assessment. During this

⁴ *Tiering* is defined in CEQA Guidelines Section 15385 as referring “to the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared. Tiering is appropriate when the sequence of EIRs is from a...program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR.”

time, the notification and consultation process with California Native American tribes began pursuant to Senate Bill (SB) 18 and Assembly Bill (AB) 52, each of which is summarized below.

1.4.1.1 Tribal Consultation Pursuant to Assembly Bill 52

Pursuant to the AB 52 tribal consultation process, CEQA lead agencies consult with tribes that are traditionally and culturally affiliated with the project area and that have requested consultation pursuant to Public Resources Code Section 21080.3.1. The purpose of the consultation is to determine whether a proposed project may result in a significant impact on tribal cultural resources.

In letters dated November 13, 2019, the County sent notification and requests to consult pursuant to AB 52 to five representatives of Native American tribes: Gabrieleno Band of Mission Indians–Kizh Nation; Gabrieleno Tongva San Gabriel Band of Mission Indians; Fernandeño Tataviam Band of Mission Indians; San Manuel Band of Mission Indians; and Tejon Indian Tribe. No responses were received pursuant to AB 52. Therefore, AB 52 tribal consultation is concluded pursuant to Public Resources Code Section 21080.3.2(b).

Copies of all AB 52 outreach communications are included in Appendix G, *Tribal Cultural Resources*.

1.4.1.2 Senate Bill 18 Consultation Process

SB 18 (Government Code Section 65352.3) outlines the process by which cities and counties contact and consult with California Native American tribes before amending or adopting a general plan or specific plan:

- (1) The County must notify the tribes identified on a contact list, maintained for this purpose by the Native American Heritage Commission (NAHC), regarding the opportunity to consult for the purpose of preserving, or mitigating impacts on, cultural places located on land within the County’s jurisdiction that would be affected by the proposed plan adoption or amendment. Tribes generally have 90 days from the date on which they receive notification to request consultation (Government Code Section 65352.3).
- (2) The County must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the County’s jurisdiction, regardless of whether prior consultation has taken place. The referral must allow a 45-day comment period (Government Code Section 65352).
- (3) The County must send notice of a public hearing at least 10 days before the hearing to tribes that have filed a written request for such notice (Government Code Section 65092).

See Section 3.16.1.3, *Regulatory Setting*, in Section 3.16, *Tribal Cultural Resources*, for additional information about SB 18.

In letters dated November 13, 2019, the County sent notification and requests to consult pursuant to SB 18 to the 24 individuals and tribes identified in Section 3.16.1.2, *Environmental Setting*, in Section 3.16, *Tribal Cultural Resources*. Five responses were received from the individuals/organizations pursuant to SB 18. The Juaneño Band of Mission Indians, Acjachemen Nation-Belardes, Morongo Band of Mission Indians; and San Manuel Band of Mission Indians

indicated that they had no concerns regarding the Project and did not request consultation. The Santa Ynez Band of Chumash Indians also did not request consultation; however, they indicated that should supplementary literature reveal additional information, or if the scope of work were to change, they would like to be notified.

The Coastal Band of Chumash Indians requested consultation. In response, the County sent emails on November 21, 2019, and January 8, 2020, to schedule a consultation meeting with the Coastal Band of Chumash Indians, but no response was received. The County also sent a letter via regular mail and email on March 11, 2020, to once again schedule a consultation call with the Coastal Band of Chumash Indians; however, no response was received.

Copies of all SB 18 outreach communications are included in Appendix G, *Tribal Cultural Resources*.

1.4.1.3 Public Review Draft Climate Action Plan

As mentioned above, the County released a public discussion draft of the 2045 CAP in early 2020. After receiving comments from the public, the County determined the need to substantially revise and update the Public Discussion Draft.

1.4.1.4 Revised Draft 2045 Climate Action Plan

As mentioned above, the County issued the initial Draft 2045 CAP in April 2002, and issued a revised Draft 2045 CAP in March 2023. The Draft 2045 CAP, as revised, is available for review (under separate cover) at the same time as this Recirculated Draft EIR. Briefly, it contains an executive summary and four chapters, as well as Appendices A through G, which provide additional detail on topics covered in the Draft 2045 CAP. Each component of the Draft 2045 CAP is summarized in Section 2.4 of Chapter 2, *Project Description*.

1.4.1.5 Scoping

CEQA Guidelines Section 15083 provides that a “Lead Agency may...consult directly with any person...it believes will be concerned with the environmental effects of the project.” *Scoping* is the process of early consultation with affected agencies and the public prior to completion of a draft EIR. Section 15083(a) states that scoping can be “helpful to agencies in identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important.” The purpose of scoping is to determine the scope of information and analysis to be included in an EIR, and thus, to ensure that an appropriately comprehensive and focused EIR will be prepared that provides a firm basis for informed decision-making.

The scoping process for this EIR included the following:

- (1) **Notice of Preparation:** The County published and distributed an NOP on December 23, 2021, which was accompanied by an initial study, to advise interested federal, state, regional, and local agencies and the public that a PEIR would be prepared for the Project. The County sent the NOP package to the Governor’s Office of Planning and Research, State Clearinghouse; potentially affected federal, state, and local agencies; and others included on a

distribution list established for this Project that included tribes, nearby property owners, and other interested parties. The NOP and Initial Study also were posted in the office of the County Clerk and online from December 29, 2021, through February 1, 2022. The NOP was published in the following 14 different newspapers throughout Los Angeles County on or before January 3, 2022: *Acton/Agua Dulce News*, *Antelope Valley News*, *Gardena Valley News*, *Glendale Independent*, *La Opinión*, *Sentinel*, *Malibu Times*, *Pasadena Star-News*, *San Gabriel Valley News*, *The Acorn*, *The Argonaut*, *The Daily Breeze*, *The Signal*, and *Whittier Daily*. The NOP, Initial Study, and mailing list are provided in Appendix A of this EIR.

- (2) **Public scoping meeting:** A virtual scoping meeting was held via Zoom on January 13, 2022, at 5:00 p.m. to provide information to the public about the Project and the CEQA process, and to solicit input from attendees. The County provided details about the Draft 2045 CAP (including the Project objectives), as well as the CEQA process (including the timeline and schedule for environmental review, CEQA resource areas, and the purpose of the scoping meeting), and then opened the meeting to receive comments and questions. Information about the location of documents for review, contact information for the receipt of scoping input, and the deadline to provide scoping input also was provided. The presentation slides are provided in Appendix A.4.
- (3) **Scoping period:** The EIR scoping period lasted from January 3, 2022, through and including February 1, 2022. In addition to oral comments made at the public meeting, written input was received from 21 entities. See **Table 1-1, Providers of Scoping Letters**. Appendix A.5 presents all input received during the scoping period. Scoping input was received regarding the project description, alternatives, impacts and mitigation generally, aesthetics, agriculture and forestry, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, transportation, tribal cultural resources, utilities and service systems, wildfire, and CEQA procedural comments. Scoping input also was received regarding comments outside the scope of CEQA. All input received pursuant to the scoping period has been considered in the preparation of this EIR.

1.4.2 Draft Program EIR

As previously mentioned, the County issued a Draft Program EIR for the Project on May 25, 2022. The Draft PEIR was informed by the scoping process and was organized pursuant to Article 9 of the CEQA Guidelines (California Code of Regulations Title 14, Sections 15120–15132), which identifies the required contents of an EIR.

**TABLE 1-1
PROVIDERS OF SCOPING LETTERS**

| Letter No. | Entity or Organization | Signatory |
|-------------------|---|--|
| 1 | Acton Town Council | Jeremiah Owen, President |
| 2 | Association of Rural Town Councils c/o Three Points Liebre Mountain Town Council | Susan Zahnter, Director |
| 3 | Ballona Ecosystem Education Project | Kathy Knight, Board Member |
| 4 | BizFed Los Angeles County Business Federation | Brissa Sotelo-Vargas (BizFed Chair, Valero), David Fleming (BizFed Founding Chair), Tracy Hernandez (BizFed Founding CEO, IMPOWER, Inc.) |
| 5 | Boyle Heights–East Los Angeles Coalition | Sofía G. Quiñonez |
| 6 | Building Industry Association of Southern California, Inc., Los Angeles/Ventura Chapter | Carlos Rodriguez, Chief Policy Officer |
| 7 | California Department of Fish and Wildlife | Erinn Wilson-Olgin, Environmental Program Manager I, South Coast Region |
| 8 | California Independent Petroleum Association | Rock Zierman, Chief Executive Officer |
| 9 | Center for Biological Diversity | J. P. Rose, Staff Attorney |
| 10 | Dr. Suzanne De Benedittis, Ph.D. | |
| 11 | Endangered Habitats League | Dan Silver, Executive Director |
| 12 | Grassroots Coalition | Patricia McPherson |
| 13 | Robert Haw | |
| 14 | Rosalind Helfand | |
| 15 | Kathleen Kunysz | |
| 16 | League of Women Voters of Los Angeles County | Fatima Malik, President |
| 17 | Native American Heritage Commission | Andrew Green, Cultural Resources Analyst |
| 18 | San Manuel Band of Mission Indians | Ryan Nordness, Cultural Resources Analyst |
| 19 | Southern California Association of Governments | Frank Wen, Ph.D. |
| 20 | Sheila Swift | |
| 21 | Kathleen Trinity | |

SOURCE: Data compiled by Environmental Science Associates in 2022

1.4.3 Recirculated Draft Program EIR

As mentioned, previously, the County has elected to issue this Recirculated Draft PEIR to reflect changes to the Draft 2045 CAP, address issues raised by public comments on the Draft EIR, and make other minor clarifications. This Recirculated Draft PEIR wholly replaces the May 2022 Draft PEIR.

The following list is a summary of the types of changes the Recirculated Draft PEIR has made to the Draft PEIR:

- Revisions across all resource areas to transition the Draft EIR’s analysis of a 2045 aspirational goal to an analysis of a 2045 GHG emissions reduction target consisting of analyses of impacts for the additional period between 2035 and 2045;

- Updates to analysis in each resource section to capture revisions to the GHG reduction strategies, measures, and actions that have been made in the Draft 2045 CAP since the close of the public comment period on the Draft EIR, including: discussion of changes to rooftop solar; expanded discussions of renewable energy goals and performance goals for EV charging stations; updates to the land use types discussions for agricultural and forestry based measures and restoration goals, as well as waste diversion goals; increase of urban tree planting goals; removal of net-zero water ordinance; and clarification that the Draft 2045 CAP is not a land use planning document;
- Analysis of an offsite GHG emissions reduction program;
- New mitigation measures added for Air Quality, Biological Resources, Utilities and Service Systems, and Wildfire;
- Changes to impact findings for Biological Resources and Utilities and Service Systems; and
- Description and analysis of a new Lower Targets Alternative as Alternative 3, which, if adopted, would lower the GHG emissions reduction targets relative to the 2045 CAP. The targets included in Alternative 3 would represent the minimum targets needed to “align” with California’s codified statewide targets for 2030 and 2045.

1.4.4 Agency and Public Review

As required by CEQA, this Recirculated Draft PEIR is being made available for agency and public review and comment for a period of at least 45 days. Copies were provided to the State Clearinghouse for circulation to interested state agencies. Printed copies of the Recirculated Draft PEIR and electronic copies of all appendices and all documents referenced in the Recirculated Draft PEIR are available for public review during normal hours at the following libraries:

A. C. Bilbrew Library
150 E. El Segundo Blvd.
Los Angeles, CA 90061

Hacienda Heights Library
16010 La Monde St.
Hacienda Heights, CA 91745

Acton Agua Dulce Library
33792 Crown Valley Road
Acton, CA 93510

La Crescenta Library
2809 Foothill Blvd.
La Crescenta, CA 91214

Charter Oak Library
20540 E. Arrow Highway, Suite K
Covina, CA 91724

Stevenson Ranch Library
25950 The Old Road
Stevenson Ranch, CA 91381

East Los Angeles Library
4837 E. 3rd St.
Los Angeles, CA 90022

Topanga Library
122 N. Topanga Canyon Blvd.
Topanga, CA 90290

A digital copy of the Recirculated Draft PEIR is available on the Project website at <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>. A printed copy of the Recirculated Draft PEIR is available for public review by appointment during normal business hours at the County Department of Regional Planning’s headquarters office (320 W. Temple Street, Los Angeles, CA 90012).

Notification of the availability of the Recirculated Draft PEIR and information about how to access it were sent directly to potentially affected agencies; the County Clerk; and the tribal entities identified in Section 6.4, *Entities Consulted and Recipients of the Recirculated Draft PEIR*, of Chapter 6, *Report Preparation*. Notice of the availability of the Recirculated Draft PEIR also was published on the Department of Regional Planning’s CEQA Notice web page, the website of the County Clerk, and in the 14 newspapers of general circulation noted above.

Please submit any written comments on the Recirculated Draft PEIR to the following address:

Los Angeles County Department of Regional Planning
 Attention: Thuy Hua
 320 West Temple Street, 13th Floor
 Los Angeles, CA 90012
 Email: climate@planning.lacounty.gov

The County will review all substantive comments received during the review period on the Recirculated Draft PEIR and provide written responses in a Final PEIR. As noted above, this Recirculated Draft PEIR wholly replaces the previously issued Draft PEIR. In light of the number and nature of Project changes described in Chapter 2 and other information added to the Draft PEIR, ***comments on the May 2022 Draft PEIR will not be included or responded to in the Final PEIR***. Comments on the May 2022 Draft PEIR, though part of the administrative record, do not require a written response in the Final PEIR; ***new comments must be submitted on the Recirculated Draft PEIR*** (See CEQA Guidelines section 15088.5(f)(1)). As such, the Final PEIR will provide responses only to comments submitted in response to the Recirculated Draft PEIR. The Final PEIR will be made available to agencies and the public, and will provide a basis for agency decision-making.

1.4.5 Final Program EIR

After the end of the Recirculated Draft PEIR’s public review period, the County will prepare a Final PEIR for consideration by the public and County decision-makers. The Final PEIR will include a list of commenters, comments, and recommendations received on the Recirculated Draft PEIR either verbatim or in summary; written responses to significant environmental points raised in the review and consultation process from comments received; and revisions to the Recirculated Draft PEIR made in response to the comments received. The Planning Commission and Board of Supervisors will review and consider the Final PEIR before taking action on the Project.

1.4.6 Findings of Fact and Decision-Making

After publication of the Final PEIR and before deciding whether to certify the PEIR or approve, modify, or deny the Project, the County will make the following findings regarding each significant impact on the environment, consistent with Public Resources Code Section 21081:

- (1) Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant effects on the environment;
- (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or

- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the PEIR.

With respect to any significant impacts that are subject to the third finding, the County must find that specific overriding economic, legal, social, technological, or other benefits of the Project outweigh its potential to result in significant unavoidable adverse impacts on the environment before it could approve the Project.

1.5 Scope and Organization of this Program EIR

This Recirculated Draft PEIR is organized as follows:

- **Executive Summary.** The Executive Summary summarizes the Project, purpose and uses of the PEIR, Project impacts and mitigation measures, alternatives to the Project and impact comparisons, the CEQA process, and areas of controversy and issues to be resolved.
- **Chapter 1, *Introduction*.** The Introduction introduces the Project; the purpose of the PEIR; the CEQA process, including discussion of program-level review and tiering; and the organization of the PEIR.
- **Chapter 2, *Project Description*.** The Project Description describes the Project area, Project purpose and objectives, and the background for the Draft 2045 CAP and its relationship to the General Plan; the contents of the Draft 2045 CAP; existing emissions; the Draft 2045 CAP's GHG emissions inventory and reduction potential; GHG emissions reduction strategies and actions included in the Draft 2045 CAP, and explanations of how the Draft 2045 CAP would be implemented, how monitoring and reporting would occur in connection with the Draft 2045 CAP; and identification of the approvals that would be required (including environmental review and consultation).
- **Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.** Chapter 3 introduces the environmental analysis and provides a detailed evaluation of potential impacts of the Draft 2045 CAP on aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, tribal cultural resources, utilities and service systems, and wildfire. Each resource section describes the relevant environmental and regulatory setting, significance criteria considered, and methodology and significance thresholds used, and documents the analysis of potential impacts.
- **Chapter 4, *Alternatives*.** Chapter 4 describes the alternatives development and screening process and outcome, describes the potential alternatives carried forward for detailed analysis as well as those that were rejected from detailed consideration, compares the alternatives analyzed in detail (including the No Project Alternative), and discusses the environmentally superior alternative.
- **Chapter 5, *Other CEQA Considerations*.** Chapter 5 documents the County's consideration of significant unavoidable impacts, significant irreversible environmental changes, and growth-inducing impacts that may result if the Draft 2045 CAP is approved and implemented.

- **Chapter 6, *Report Preparation*.** Chapter 6 identifies those who participated in the preparation of the PEIR, including County personnel and consultants, as well as the organizations and persons who were consulted during the preparation of the PEIR.
- **Chapter 7, *References*.** Chapter 7 identifies the reference materials relied upon in preparing the PEIR, except for the project-specific technical studies prepared specifically for the Project, which are included in the Appendices. Copies of cited reference material are available in the locations identified in the Notice of Availability of the Recirculated Draft PEIR.
- **Appendices.** The Appendices contain Project-specific documents relating to the scoping process and Project-specific technical information relied upon in the drafting of the PEIR. They include the following:
 - Appendix A: Scoping
 - Appendix B: Air Quality
 - Appendix C: Biological Resources
 - Appendix D: Greenhouse Gas Emissions
 - Appendix E: Noise
 - Appendix F: Transportation
 - Appendix G: Tribal Cultural Resources

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CHAPTER 2

Project Description

2.1 Project Area

The Project area for the Draft 2045 Los Angeles County Climate Action Plan (2045 CAP) consists only of the unincorporated areas of Los Angeles County¹. These areas occupy approximately 1,696,000 acres, or 2,650 square miles (approximately 65 percent of the total land area of Los Angeles County), as identified in **Figure 2-1, Map of Unincorporated Los Angeles County**.² Los Angeles County is geographically diverse:

- The unincorporated areas in northern Los Angeles County are covered by large amounts of sparsely populated land, including Angeles National Forest and parts of Los Padres National Forest and the Mojave Desert.
- In western Los Angeles County, the unincorporated areas include Marina del Rey and the Santa Monica Mountains.
- The unincorporated areas in southern and eastern Los Angeles County consist of many non-contiguous land areas, often referred to as the *unincorporated urban islands*, including areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

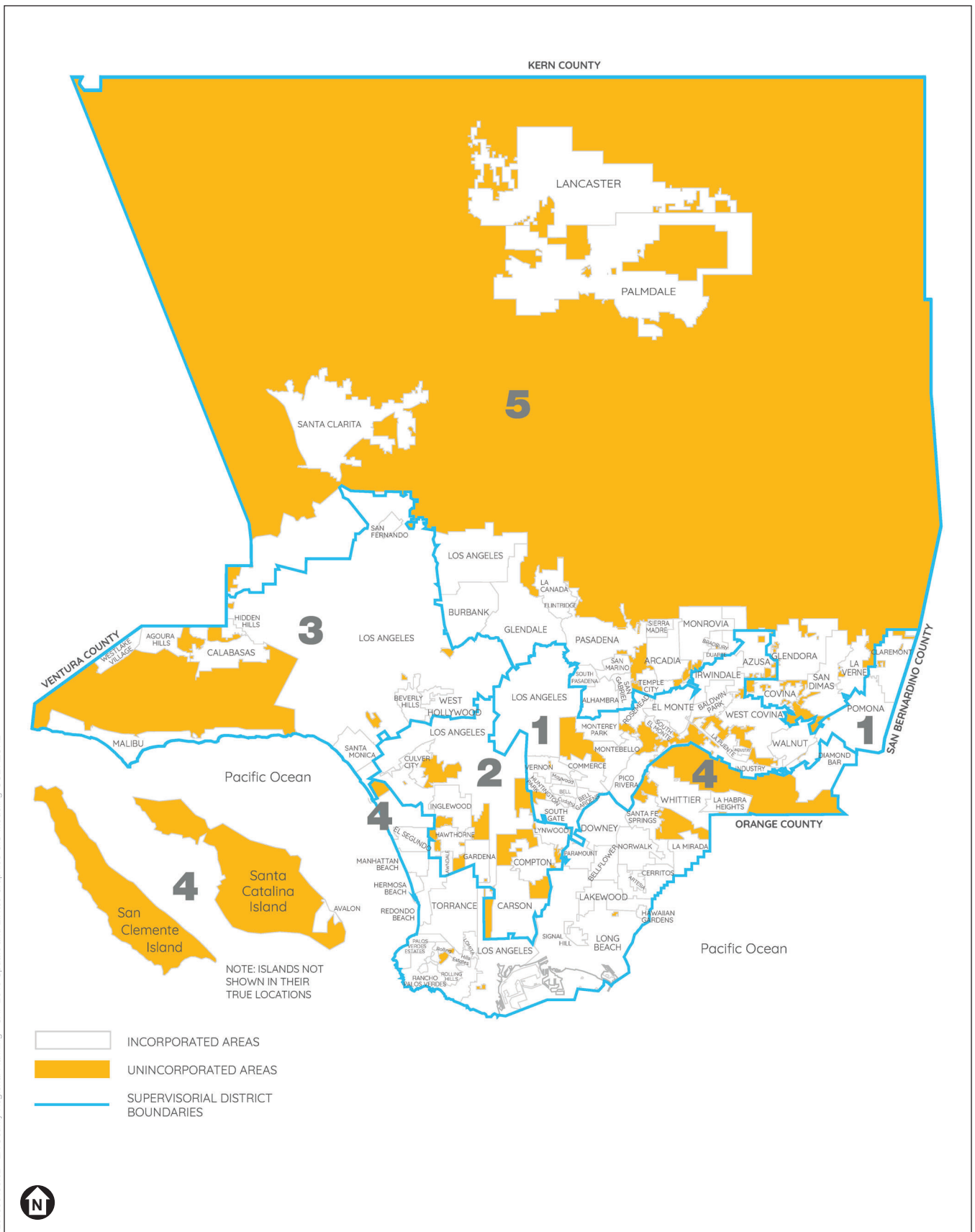
2.2 Background and Relation to County Plans and Statewide Emissions Targets

2.2.1 Relationship to the Los Angeles County General Plan

The *Los Angeles County General Plan 2035* (General Plan) provides the policy framework and establishes the long-range vision for how and where the unincorporated areas grow (County Planning 2015a). It establishes goals, policies, and programs to foster healthy, livable, and sustainable communities and provides a guide for future land use, housing, and economic development.

¹ This document and the 2045 CAP use the following terminology: “Unincorporated Los Angeles County” refers to the unincorporated areas of Los Angeles County; “Countywide” refers to Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; and “County” refers to County of Los Angeles government.

² This area has been selected as the most operationally feasible extent of implementation. In these locations, future projects facilitated by the strategies and measures of the Draft 2045 CAP could be made subject to Los Angeles County’s land use oversight and enforcement authority, which does not extend to land, facilities, or infrastructure outside the unincorporated areas. Although the County encourages other governmental entities to undertake actions to reduce greenhouse gas emissions within their own jurisdictions, any such other actions would not enable the County to create emissions reductions.



SOURCE: Los Angeles County Climate Action Plan
 March 2020 Public Review Draft

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 2-1
 Map of Unincorporated Los Angeles County



The General Plan includes a Planning Areas Framework, which serves as a mechanism for local communities to work with County to develop plans that respond to their unique and diverse characters.

The County adopted the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP) in 2015 as a component of the Air Quality Element of the General Plan (County Planning 2015b). The 2020 CCAP aligned with General Plan goals, policies, and programs, as well as several other existing programs in Los Angeles County. The 2020 CCAP was the first attempt to set greenhouse gas (GHG) emissions reduction goals in Los Angeles County. Although the targets for the 2020 CCAP were ultimately not fully met, the plan provided a road map for implementing the County’s GHG reduction measures. The 2020 CCAP actions were implemented through County Code amendments and programs related to climate action.

The Draft 2045 CAP builds on previous work and defines new reduction targets beyond the year 2020. The Draft 2045 CAP details the GHG emissions reduction vision and goals of *OurCounty: Los Angeles Countywide Sustainability Plan* for the unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the General Plan’s Air Quality Element. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element (i.e., the 2020 CCAP, as described above). The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan’s land use assumptions as identified in the Land Use Element and 2021-2029 Revised County of Los Angeles Housing Element (2021–2029 Housing Element). No changes to General Plan land use designations, zoning, or land use, or specific projects, are proposed as part of the Draft 2045 CAP.

Approval of the Draft 2045 CAP would result in updates to the General Plan as shown in **Table 2-1, Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element**, and **Table 2-2, Proposed Updates to the Los Angeles County General Plan 2035 Implementation Program**. In both tables, updates are shown in tracked changes, with additions underlined and deletions shown in ~~strike-out~~. The proposed update to the General Plan Air Quality Element sets the policy foundation for actions in the Draft 2045 CAP that were not previously addressed in the 2020 CCAP.

**TABLE 2-1
PROPOSED UPDATES TO THE LOS ANGELES COUNTY GENERAL PLAN 2035 AIR QUALITY ELEMENT**

| Topic | Policy |
|---|---|
| Goal AQ 1: Protection from exposure to harmful air pollutants. | |
| Air Pollutants | Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors. |
| | Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials. |
| | Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible. |
| | Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources. |
| | Policy AQ 1.5: Encourage new residential buildings and other sensitive land uses in areas with high levels or localized air pollution be designed to achieve good indoor air quality through landscaping, ventilation systems, or other measures. |

**TABLE 2-1 (CONTINUED)
PROPOSED UPDATES TO THE LOS ANGELES COUNTY GENERAL PLAN 2035 AIR QUALITY ELEMENT**

| Topic | Policy |
|--|---|
| Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation, and air quality planning. | |
| Air Quality, Land Use, & Transportation | Policy AQ 2.1: Discourage the siting of sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways. |
| | Participate in, and effectively e- Coordinate with local, regional, state, and federal agencies the to development and implementation of community and regional air quality plans and programs. |
| | Support the conservation of natural resources and vegetation to reduce and mitigate air pollution impacts. Encourage land use development and design that integrates GHG emission reduction strategies through increasing residential density and infill development, especially affordable housing and diversity of destinations near High-Quality Transit Areas. |
| | Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses. |
| | Policy AQ 2.5: Expand infrastructure to accommodate transit and alternative modes of transportation to serve residential, employment, and recreational trips. |
| | Policy AQ 2.6: Explore the feasibility of parking strategies that limit or remove parking minimums to reduce vehicular trips. |
| | Policy AQ 2.7: Encourage and support the development and implementation of Zero-Emission technology and infrastructure in an equitable manner to ensure access to all County residents. |
| | Policy AQ 2.8: Electrify entire County light-duty and bus and shuttle fleet vehicles. |
| | Policy AQ 2.9: Encourage the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment and freight decarbonization technologies, such as charging infrastructure for freight vehicles. |
| Goal AQ 3: Implementation of plans and programs to address the impacts of climate change and reduce greenhouse gas emissions through climate action and mitigation. | |
| Climate Change Climate Action and Mitigation | Policy AQ 3.1: Facilitate the implementation and maintenance of the LA County Climate Action Plan to ensure that the County reaches its climate change action and greenhouse gas emission reduction goals. |
| | Policy AQ 3.2: Reduce energy consumption in existing buildings and County operations through energy efficiency retrofits. |
| | Reduce water consumption in County operations. Encourage carbon sequestration through sustainable agricultural practices and conservation of agricultural and working lands, forest lands, and wildlands. |
| | Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions. |
| | Encourage energy conservation in new development and municipal operations. Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification. |
| | Policy AQ 3.6: Support local rooftop solar facilities power generation on new and existing buildings and parking lots. |
| | Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas. |
| | Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts. |
| | Policy AQ 3.8: Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. |
| | Policy AQ 3.9: Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County. |
| Policy AQ 3.10: Reduce the life-cycle carbon intensity of building materials and phase out the use of high-global-warming-potential refrigerants. | |

TABLE 2-1 (CONTINUED)
PROPOSED UPDATES TO THE LOS ANGELES COUNTY GENERAL PLAN 2035 AIR QUALITY ELEMENT

| Topic | Policy |
|--|--|
| Goal AQ 3 (cont.) | |
| <u>Climate Action and Mitigation (cont.)</u> | <u>Policy AQ 3.11: Promote sustainable waste practices through public outreach, educational programs, and mandates.</u> |
| | <u>Policy AQ 3.12: Ensure and promote the availability of organics waste and recyclable materials diversion services for beneficial use, such as composting, energy production, and upcycling.</u> |
| | <u>Policy AQ 3.13: Collaborate with environmental organizations, businesses, schools, and the general public to promote the importance of climate action.</u> |

TABLE 2-2
PROPOSED UPDATES TO THE LOS ANGELES COUNTY GENERAL PLAN 2035 IMPLEMENTATION PROGRAM

| Program No. | Program Description | General Plan Goals and Policies | Lead and Partner Agencies | Time Frame |
|-------------|---|--|---|----------------|
| AQ-1 | PACE Financing Program Pursuant to AB 811, establish a countywide property assessed clean energy (PACE) financing program to provide municipal financing for energy and water efficiency and renewable energy projects on private property. | Air Quality Element: Policies AQ 3.2, AQ 3.3 Public Services and Facilities Element: Policy 6.5 Economic Development Element: Policy ED 1.2 | Lead: ISD | Years 1-2 |
| AQ-2 | Climate Change Adaptation Program <ul style="list-style-type: none"> Develop strategies to address the impacts of climate change related but not limited to agriculture, public health, ecosystems and natural resources, energy, infrastructure, and emergency management. Climate change adaptation strategies may be conducted sequentially, starting with the evaluation of threats, vulnerability and risk assessments, identification of mitigation actions, and implementation. Investigate short and long-term funding mechanisms. Amend the General Plan accordingly to incorporate proposed climate change adaptation actions. | Air Quality Element: Policy AQ 3.8 | Lead: CEO | Years 1-2 |
| <u>AQ-1</u> | Climate Action Plan Implementation <ul style="list-style-type: none"> Implement the actions identified in the <u>Los Angeles County Climate Action Plan to reduce greenhouse gas emissions.</u> | <u>Air Quality Element:</u> <u>Goal AQ 2, AQ 3</u> | <u>Lead: Chief Executive Office, Department of Public Health, Department of Parks and Recreation, Department of Regional Planning, Fire, Internal Services Department, Public Works</u> | <u>Ongoing</u> |

NOTES:

- The PACE Financing Program (existing program number AQ-1) is being deleted because the County of Los Angeles's contracts with Renovate America and Renew Financial expired on April 3, 2020. The County stopped approving new assessment contracts through PACE Funding Group on May 13, 2020. The County continues to work with its PACE administrators to manage existing assessment contracts and provide appropriate consumer protection.
- The Climate Change Adaptation Program (existing program number AQ-2) is being deleted because the Safety Element Update developed adaptation strategies to address climate change impacts and because the OurCounty Sustainability Plan strategically addressed this directive.

2.2.2 Relationship to the OurCounty Sustainability Plan

OurCounty: Los Angeles Countywide Sustainability Plan (OurCounty Sustainability Plan) is a regional sustainability plan for Los Angeles County (Los Angeles County Chief Sustainability Office 2019). It includes a cross-cutting set of goals, strategies, actions, and targets for creating a resilient, inclusive, and sustainable County. The OurCounty Sustainability Plan does not supersede the General Plan, which addresses land use policy in the unincorporated areas. Instead, it is a forward-looking strategic plan toward a common sustainability vision for the 88 cities and unincorporated areas of Los Angeles County. It adds to the County’s strategic framework for creating a more equitable and resilient community in the face of climate change.

The Draft 2045 CAP shares the OurCounty Sustainability Plan’s vision for the region (see Section 3.12, *Land Use and Planning*, for details). However, the Draft 2045 CAP differs in that it is part of the General Plan’s Air Quality Element and focuses specifically on reducing GHG emissions from municipal and community activities projected for the unincorporated areas of Los Angeles County.

2.2.3 Relationship to Statewide Emissions Targets

In 2005, Governor Arnold Schwarzenegger’s Executive Order (EO) S-3-05 established the 2050 statewide GHG emissions reduction target of 80 percent below 1990 levels, expressing the intent of the State of California to address the issue of climate change through reducing GHG emissions. In 2015, Governor Edmund G. Brown Jr.’s EO B-30-15 established the 2030 statewide GHG reduction target of 40 percent below 1990 levels.

Following EO S-3-05, in 2006, the California Legislature enacted Assembly Bill (AB) 32 (Health and Safety Code Section 38500 et seq.). AB 32 required the California Air Resources Board (CARB) to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions would be reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). CARB identified a GHG emissions reduction target of 15 percent from 2010 levels by 2020 for local governments (municipal and community-wide) and noted that successful implementation of the plan would rely on local governments’ land use planning and urban growth decisions, as local governments have primary authority for planning, zoning, approving, and permitting land development to accommodate population growth and the changing needs of their jurisdictions.

In 2016, Senate Bill (SB) 32 and its companion bill, AB 197, amended the Health and Safety Code by establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure that the benefits of state climate policies would accrue to disadvantaged communities. Further, in 2018, Governor Brown signed EO B-55-18, committing California to total, economy-wide carbon neutrality by 2045.³

³ *Carbon neutrality* means “net zero” emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration.

In December 2017, CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan), which outlines the proposed framework of action for achieving the 2030 target of a 40 percent reduction in GHG emissions relative to 1990 levels as codified by SB 32 (CARB 2017). The primary focus areas identified in the 2017 Scoping Plan are associated with energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green buildings, and cap-and-trade.

In August 2022, the California Legislature enacted a package of significant climate legislation that included a codification of the state’s goal to reach net-zero GHG emissions by 2045. With the passage of AB 1279, California has established a policy to reach net zero GHG emissions by no later than 2045. AB 1279 also establishes a policy for California to cut anthropogenic GHG emissions by 85 percent compared to 1990 levels. Governor Gavin Newsom signed AB 1279 into law on September 16, 2022.

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) in response to AB 1279 and other legislation (CARB 2022a). The 2022 Scoping Plan lays out a path to achieve carbon neutrality no later than 2045 and to reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve the following: significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in short-lived climate pollutants; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon (CARB 2022b). Appendix D of the 2022 Scoping Plan includes recommendations for local government actions to align with the state’s climate goals, focusing on local GHG emissions reduction strategies (CARB 2022c). According to CARB, “local government actions are crucial for supporting attainment of the state’s climate goals” and local government leadership is “critical to implementing State-level measures to address GHG emissions associated with transportation and the built environment.”

Table 2-3, Sources of Statewide Emissions Targets, summarizes legislation regarding statewide emissions targets. These targets inform the project purpose and objectives described below.

TABLE 2-3
SOURCES OF STATEWIDE EMISSIONS TARGETS

| Legislation/Regulation | Year | Summary |
|---|-------------|---|
| EO S-3-05 | 2005 | Established the State of California’s first GHG emissions reduction targets: reduction to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. |
| AB 32, Global Warming Solutions Act | 2006 | Codified EO S-3-05 and authorized CARB to implement a comprehensive, multi-year program to reduce GHG emissions from all sources throughout the state. |
| AB 32 Scoping Plan | 2008 | Described the long-term road map for achieving the AB 32 target of reducing emissions to 1990 levels by 2020. |
| SB 535, Greenhouse Gas Reduction Fund and Disadvantaged Communities | 2012 | Required that 25 percent of all funds allocated pursuant to an investment plan for the use of state monies collected through a Cap-and-Trade program be allocated to projects that benefit disadvantaged communities and that at least 10 percent of these be spent on projects located in disadvantaged communities. |

TABLE 2-3 (CONTINUED)
SOURCES OF STATEWIDE EMISSIONS TARGETS

| Legislation/Regulation | Year | Summary |
|--|-------------|--|
| EO B-30-15 | 2015 | Established a GHG emissions reduction target of 40 percent below 1990 levels by 2030. |
| SB 32, California Global Warming Solutions Act of 2006 and its companion bill, AB 197: emissions limit | 2016 | Codified EO B-30-15. |
| 2017 Scoping Plan Update | 2017 | Described the long-term road map for achieving the SB 32 target of reducing emissions by 40 percent below 1990 levels by 2030. |
| AB 398, California's Cap-and-Trade Program | 2017 | Extended the state's Cap-and-Trade Program through 2030, a key strategy for reducing GHG emissions in California. The Cap-and-Trade Program sets total allowable emissions for facilities and creates carbon offset credits through carbon sequestration projects. |
| EO B-55-18 | 2018 | Established a target of carbon neutrality (net zero GHG emissions) by 2045. |
| AB 1279 | 2022 | Codified EO B-55-18's 2045 carbon neutrality target and established an additional GHG emissions target to reduce anthropogenic emissions 85 percent below 1990 levels by 2045. |
| 2022 Scoping Plan | 2022 | Describes the long-term, sector-by-sector road map for achieving the AB 1279 targets of carbon neutrality and reducing anthropogenic emissions by 85 percent below 1990 levels, both by 2045. |

NOTES:

2022 Scoping Plan = 2022 Scoping Plan for Achieving Carbon Neutrality; AB = Assembly Bill; CARB = California Air Resources Board; EO = Executive Order; GHG = greenhouse gas; SB = Senate Bill

SOURCE: Draft 2045 CAP, Table 1-2.

2.3 Project Purpose and Objectives

2.3.1 Project Purpose

While several state-level initiatives will help reduce GHG emissions, they alone will not be sufficient to meet the 2030 target mandated by SB 32. In response to the State of California's efforts and to ensure that the County contributes its fair share to statewide GHG reductions, the County is preparing the Draft 2045 CAP. The Draft 2045 CAP identifies measures to effectively meet GHG emissions reduction targets for 2030, 2035, and 2045 that are consistent with the state's targets and legislative actions described above. The Draft 2045 CAP also includes an aspirational GHG emissions reduction goal of carbon neutrality by 2045. The Draft 2045 CAP furthers the vision and goals of the OurCounty Sustainability Plan and implements the GHG emissions reduction strategies of the General Plan's Air Quality Element. Specifically, the Draft 2045 CAP, once finalized and approved, would replace the existing implementation strategy of the Air Quality Element, known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020* (referred to in this environmental impact report [EIR] as the "2020 CCAP"). The 2045 CAP would serve as the overarching implementation plan through the 2045 target year and is expected to be updated every five years to reflect new advances and technologies in GHG emissions reduction strategies.

2.3.2 Project Objectives

The objectives of the Draft 2045 CAP are as follows:

1. Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
2. Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
3. Provide a road map for reducing GHG emissions to achieve the County’s GHG emissions reduction targets.
4. Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
5. Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide California Environmental Quality Act (CEQA) streamlining for development projects (serve as a “qualified CAP”) via the 2045 Climate Action Plan Consistency Review Checklist (2045 CAP Checklist).

2.3.3 Qualified Greenhouse Gas Emissions Reduction Plan

CEQA Guidelines Section 15183.5(b) stipulates that project-specific environmental documents can find that project-level GHG emissions would not be cumulatively considerable if the project complies with the requirements of a qualified GHG emissions reduction plan. The project-specific environmental document must identify those requirements in the GHG emissions reduction plan that applies to the project, and if they are not otherwise enforceable, must incorporate those requirements as project-specific mitigation measures. To meet the requirements of CEQA Guidelines Section 15183.5(b), a qualified GHG emissions reduction plan must do the following:

1. Quantify existing and projected GHG emissions resulting from activities within a defined geographic area.
2. Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
3. Identify and analyze sector-specific GHG emissions within the plan’s geographic area.
4. Specify measures or a group of measures, including performance standards, that if implemented at the project-by-project basis, would collectively achieve the specified emissions level.
5. Establish a mechanism to monitor the plan’s progress toward achieving the GHG emissions level and to require amendment if the plan is not achieving specified levels.
6. Be adopted in a public process following environmental review.

Table 2-4, *Consistency of the Draft 2045 Climate Action Plan with CEQA Guidelines Section 15183.5(b)(1) for Years 2030, 2035, and 2045*, summarizes the consistency of the Draft 2045 CAP with these requirements. As shown in Table 2-4, upon certification of this EIR and

approval of the plan, the 2045 CAP would meet the requirements of a qualified GHG emissions reduction plan per CEQA Guidelines Section 15183.5(b)(1).

**TABLE 2-4
CONSISTENCY OF THE DRAFT 2045 CLIMATE ACTION PLAN
WITH CEQA GUIDELINES SECTION 15183.5(B)(1) FOR YEARS 2030, 2035, AND 2045**

| CEQA Guidelines Section 15183.5(b)(1) Requirement | 2045 Draft CAP Consistency |
|--|--|
| (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area. | Consistent. The Draft 2045 CAP includes a 2015 baseline GHG emissions inventory, a 2018 GHG emissions inventory update, and projections of 2030, 2035, and 2045 emissions. GHG emissions for all of these years include emissions associated with all activities occurring within the boundaries of the unincorporated areas of Los Angeles County. The inventories and forecasts were prepared pursuant to the <i>Global Protocol for Community-scale GHG Emission Inventories</i> (World Resources Institute et al. 2021a, 2021b). Further, the inventories and forecasts include sources over which the County has some level of jurisdictional control or influence (such as building energy use) and exclude those sources over which the County has no jurisdictional control or influence (such as military vehicles and power plants). This information is contained in Chapter 2, Appendix A, and Appendix B of the Draft 2045 CAP. |
| (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable. | Consistent. The Draft 2045 CAP establishes targets for 2030, 2035, and 2045. The Draft 2045 CAP identifies a GHG emissions reduction target for the year 2030 of 40% below baseline 2015 levels. This is equivalent to 48% below 1990 levels within unincorporated areas of Los Angeles County. Compared to the statewide target of 40% below 1990 levels by 2030 pursuant to SB 32, the Draft 2045 CAP's 2030 target is more stringent than the statewide target. Consistency with the 2017 Scoping Plan and SB 32 is an appropriate metric by which to determine the significance of the Draft 2045 CAP's GHG emissions through 2030. As stipulated by CEQA Guidelines Section 15064.4(b)(3), a lead agency "may consider a project's consistency with the state's long-term climate goals or strategies" when determining the significance of a project's cumulative GHG emissions impacts. Therefore, the Draft 2045 CAP's 2030 target represents the level below which GHG emissions would not be cumulatively considerable in the year 2030. The Draft 2045 CAP also identifies a GHG emissions reduction target for the year 2045 of 83% below baseline 2015 levels, which is equivalent to 85% below 1990 levels. Compared to the statewide target of 85% below 1990 levels by 2045 pursuant to AB 1279, the Draft 2045 CAP's 2045 target is aligned with the statewide target. Consistency with the 2022 Scoping Plan and AB 1279 is an appropriate method of determining that the Draft CAPs 2045 GHG emissions are not cumulatively considerable. Finally, the Draft 2045 CAP includes a 2035 GHG emissions reduction target of 40% below baseline 2015 levels, which is equivalent to 57% below 1990 levels. This 2035 target puts the County on a path to achieve both its 2045 target and its long-term aspirational goal of carbon neutrality by 2045, consistent with the state's 2045 target as stipulated in AB 1279. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2035 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2035. |
| (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area. | Consistent. The Draft 2045 CAP identifies 10 strategies, 26 measures, and numerous implementing actions to reduce GHG emissions within unincorporated areas of Los Angeles County to achieve the 2030, 2035, and 2045 targets. These strategies and measures also put the County on a path toward its 2045 aspirational goal of carbon neutrality. They address emissions in the sectors of stationary energy, transportation, water, waste, industrial process and product use, and agriculture and forestry. This information is contained in Chapter 3 and Appendix E of the Draft 2045 CAP. |

**TABLE 2-4 (CONTINUED)
CONSISTENCY OF THE DRAFT 2045 CLIMATE ACTION PLAN
WITH CEQA GUIDELINES SECTION 15183.5(B)(1) FOR YEARS 2030, 2035, AND 2045**

| CEQA Guidelines Section 15183.5(b)(1) Requirement | 2045 Draft CAP Consistency |
|--|---|
| <p>(D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.</p> | <p>Consistent. The Draft 2045 CAP quantifies the GHG emissions reduction potential of strategies, measures, and additional implementing actions to reduce GHG emissions within unincorporated areas of Los Angeles County to achieve the 2030, 2035, and 2045 targets. The Draft 2045 CAP also identifies how, if these measures were implemented on a project-by-project basis, the measures collectively would achieve the 2030, 2035, and 2045 targets. This is demonstrated through quantitative GHG emissions modeling as detailed in Appendix B of the Draft 2045 CAP.</p> <p>The Draft 2045 CAP includes a preponderance of mandatory (versus voluntary) measures and actions, measures that address the largest GHG emissions sources (such as building energy use and transportation), a focus on core measures that are likely to reduce large amounts of emissions, transparency in methods of quantification (see Appendix B of the Draft 2045 CAP), and no reliance on voluntary carbon offsets.</p> <p>Based on a quantitative analysis, the Draft 2045 CAP is anticipated to result in more than 1.5 million MTCO₂e of GHG emission reductions by 2030, which is equivalent to a 47% reduction in 2015 baseline emissions levels and a 54% reduction in 1990 emissions levels for the County, exceeding the 2030 target of a 40% reduction in 2015 levels. As such, implementation of the Draft 2045 CAP would result in lower emissions than an equivalent state target (40% emissions reduction in 1990 levels by 2030).</p> <p>The Draft 2045 CAP also is anticipated to result in more than 1.9 million MTCO₂e of GHG emissions reductions by 2035, which is equivalent to a 59% reduction in 2015 baseline emissions levels and a 64% reduction in 1990 emissions levels for the County, exceeding the 2035 target of a 50% reduction in 2015 levels.</p> <p>Finally, the Draft 2045 CAP also is anticipated to result in nearly 2.9 million MTCO₂e of GHG emissions reductions by 2045, which is equivalent to a 83% reduction in 2015 baseline emissions levels and a 85% reduction in 1990 emissions levels for the County, meeting the 2045 target of a 83% reduction relative to 2015 levels. The Draft 2045 CAP therefore achieves the County's 2030, 2035, and 2045 GHG emissions reduction targets. Further, the Draft 2045 CAP demonstrates substantial progress toward achieving the County's aspirational goal of carbon neutrality by 2045.</p> |
| <p>(E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.</p> | <p>Consistent. The Draft 2045 CAP includes an Implementation Plan (see Chapter 4 of the Draft 2045 CAP), which contains performance indicators and targets for all GHG reduction measures. The Implementation Plan also includes details regarding funding and financing strategies and a list of available and expected funding sources, along with a table for monitoring and reporting progress on the measures and their implementing actions. The Draft 2045 CAP also includes a process to update the CAP every five years to adjust existing and incorporate new measures and technologies that would further the County's efforts toward meeting its GHG emissions targets and long-term aspirational goal of carbon neutrality by 2045. This information is contained in Chapter 4 and Appendix E of the Draft 2045 CAP.</p> |
| <p>(F) Be adopted in a public process following environmental review.</p> | <p>Consistent. The County has prepared this Draft EIR for the Draft 2045 CAP and is circulating both for public review and comment. The County would consider the environmental review record prior to deciding whether to certify the EIR or approve the 2045 CAP at a noticed public meeting.</p> |

NOTES:

2017 Scoping Plan = 2017 Climate Change Scoping Plan Update; CEQA = California Environmental Quality Act; Unincorporated Los Angeles County = unincorporated areas of Los Angeles County; Draft 2045 CAP = 2045 Los Angeles County Climate Action Plan; EIR = environmental impact report; EO = Executive Order; GHG = greenhouse gas; County = County of Los Angeles government; MTCO₂e = metric tons of carbon dioxide equivalent; SB = Senate Bill

SOURCES: Draft 2045 CAP, including Appendices A, B, E, and F; World Resources Institute et al. 2021a, 2021b

The Draft 2045 CAP is consistent with the requirements for a qualified GHG emissions reduction plan pursuant to CEQA as identified in Table 2-4 for the years 2030 and 2035. If the Final EIR is certified and the Draft 2045 CAP is adopted, then the 2045 CAP may be used to streamline the GHG analysis for future projects facilitated by Draft 2045 CAP measures and actions pursuant to CEQA Guidelines Section 15183.5(b)(1). CEQA review of projects that are consistent with the GHG reduction strategies and targets in the 2045 CAP may take advantage of CEQA streamlining on a project-by-project basis.

2.4 Contents of the 2045 Climate Action Plan

The Draft 2045 CAP contains an executive summary and four chapters, as well as Appendices A through G, which provide additional detail on topics covered in the Draft 2045 CAP. Published under separate cover, the Draft 2045 CAP is available for public review and comment concurrently with the Draft EIR. A summary of each component of the Draft 2045 CAP is presented below.

- **Executive Summary:** The executive summary includes a synopsis of the Draft 2045 CAP, including its goals, GHG inventories, and business-as-usual (BAU) forecasts⁴; new 2030 and 2035 targets, and its long-term aspirational goal for 2045; and an overview of the Draft 2045 CAP’s strategies for achieving the targets.
- **Chapter 1—Introduction:** This chapter provides a summary of the latest climate change science and regulations, and discusses policies implemented since the 2020 CCAP was adopted. Chapter 1 also includes a section on social equity, and summarizes prior County planning efforts related to climate change, including the OurCounty Sustainability Plan and the recently completed Los Angeles County Climate Vulnerability Assessment.
- **Chapter 2—GHG Emissions Inventory, Forecasts, and Reduction Targets:** This chapter presents the results of the 2010, 2015, and 2018 GHG inventories and the emissions forecasts for 2030, 2035, and 2045. It also presents a 1990 GHG emissions backcast⁵ as it relates to the Draft 2045 CAP’s emission reduction targets for 2030, 2035, and 2045. The chapter includes a discussion of each emissions sector and its major sources of GHG emissions and describes how existing state and County standards and regulations are expected to affect emissions forecasts. Lastly, the chapter establishes the Draft 2045 CAP’s GHG emissions targets for 2030, 2035, and 2045, along with its aspirational goal of carbon neutrality for 2045.
- **Chapter 3—GHG Emissions Reduction Strategies, Measures, and Actions:** This chapter describes the strategies, measures, and actions the County would implement to achieve its reduction targets, covering topics such as energy, transportation, solid waste, and natural resources. A timeline for implementation is provided, along with estimated GHG emissions reductions for each future target year. Details of quantification methods and assumptions are provided in a technical appendix. The Draft 2045 CAP includes 10 overarching strategies and 25 measures, each of which has one or more implementing actions. The general definitions of “strategy,” “measure,” and “action” are as follows:
 - *Strategy:* An overall, sector-level goal of the Draft 2045 CAP. Strategies are broad, aiming for overarching goals within each emissions sector. For example, “Decarbonize the Energy Supply” is a strategy (i.e., Strategy 1).

⁴ The “business-as-usual” or BAU forecast assumes that no action is taken to reduce GHG emissions in Los Angeles County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

⁵ A *backcast* is an estimation method that, similar to a forecast, projects activities and emissions from a current year into the past based on proxy data and known trends including population, housing, and employment.

- *Measure*: A focused, sub-sector-specific program and goal that include performance standards designed to be quantified for GHG emissions reductions. Measures support strategies and are to be achieved through individual implementing actions. For example, “Procure Zero-Carbon Electricity” is a measure (i.e., Measure ES2, supporting Strategy 1). The quantitative GHG emissions reduction analysis is provided primarily at the measure level.
- *Action*: A specific policy, program, or tool that would be implemented for each measure. Actions are intended to be implemented in a coordinated manner to make meaningful progress toward the associated measure and strategy. For example, “Complete enrollment of the community in the Clean Power Alliance’s (CPA’s) 100% Green Power option or Southern California Edison’s (SCE’s) Green Rate option” is an action (i.e., Action ES2.2 associated with Measure ES2 and Strategy 1).
- **Chapter 4—Implementation and Monitoring**: This chapter includes the Draft 2045 CAP’s implementation and monitoring program, outlining for each GHG emissions reduction measure the specific actions to be taken, the needs for operational and capital resources, policy and regulatory changes, and the department and/or other entities responsible for implementation. The implementation plan includes performance indicators for each measure (and select actions) that would be used to track progress toward achieving each future target, which would be monitored on an annual basis. This chapter also summarizes CEQA provisions and any development project review requirements for CEQA streamlining.
- **Appendix A—Greenhouse Gas Accounting Methods, Business as Usual Forecast, and Emission Reduction Targets**: This appendix includes revised inventories for 2015 and 2018; backcasting methods to 2010 and 1990; assumptions for the BAU forecast; and a derivation of the 2045 CAP’s aspirational goal for GHG emissions reduction.
- **Appendix B—Emissions Forecasting and Reduction Methods**: This appendix includes assumptions for the Adjusted BAU forecast⁶ and assumptions and quantification methods for emissions reduction strategies and measures.
- **Appendix C—Prior and Current County Actions on Climate Change**: This appendix includes a description of the County’s past and current activities on climate change.
- **Appendix D—Planning Area Profiles**: This appendix provides an overview of each of the 11 planning areas as outlined in the General Plan and provides information about them from a climate action perspective, identifying “Key Climate Actions” for each area.
- **Appendix E—Implementation Details**: This appendix provides implementation details on each of the measures and actions presented in Chapter 3 of the 2045 CAP.
- **Appendix F—2045 Climate Action Plan Consistency Review Checklist**: This appendix includes the consistency review checklist for new development.
- **Appendix G—Funding Sources**: This appendix includes a list of potential funding sources for implementing the 2045 CAP.
- **Appendix H—Consistency with the 2022 Scoping Plan**: This appendix the 2045 CAP with CARB’s recommendations for local governments contained in the 2022 Scoping Plan.

⁶ The Adjusted BAU forecast accounts for future growth under BAU conditions but makes adjustments for federal, state, and County legislative regulations that were implemented before the development of the Draft 2045 CAP.

2.5 Draft 2045 Climate Action Greenhouse Gas Inventory, Future Emissions, Targets, and Greenhouse Gas Reduction Potential

2.5.1 Baseline 2015 and Updated 2018 Greenhouse Gas Inventories

As shown in **Table 2-5, 2010, 2015, and 2018 Greenhouse Gas Inventories for the Unincorporated County**, GHG emissions in unincorporated areas of Los Angeles County in 2010 totaled 6.0 million metric tons of carbon dioxide equivalent (MTCO_{2e}),⁷ which equates to 5.7 MTCO_{2e} per County resident and 4.6 MTCO_{2e} per service population (SP) (i.e., residents plus employees). In 2015, the baseline year for the Draft 2045 CAP selected for consistency with the OurCounty Sustainability Plan and the General Plan, the unincorporated County's GHG emissions totaled 5.5 million MTCO_{2e}, which equates to 5.2 MTCO_{2e} per County resident and 4.2 MTCO_{2e} per SP. In 2018, emissions were 5.2 million MTCO_{2e}, representing a 6 percent decline from 2015 baseline levels; this is equivalent to 4.8 MTCO_{2e} per County resident and 3.8 MTCO_{2e} per SP.

**TABLE 2-5
2010, 2015, AND 2018 GREENHOUSE GAS INVENTORIES FOR THE UNINCORPORATED COUNTY**

| Emissions Sector | GHG Emissions (MTCO _{2e}) | | |
|--|-------------------------------------|-----------|-----------|
| | 2010 | 2015 | 2018 |
| Stationary Energy | 2,146,743 | 1,908,637 | 1,698,809 |
| Transportation | 3,015,442 | 2,811,779 | 2,708,758 |
| Waste | 564,503 | 469,997 | 469,382 |
| IPPU | 243,456 | 253,529 | 239,505 |
| AFOLU | 60,860 | 60,860 | 60,860 |
| <i>Total GHG Emissions</i> | 6,031,003 | 5,531,155 | 5,173,240 |
| Population | 1,057,194 | 1,058,871 | 1,082,365 |
| Employment | 244,745 | 255,287 | 261,612 |
| Service Population (Population + Employment) | 1,301,939 | 1,314,158 | 1,343,977 |
| GHG Emissions per Capita | 5.7 | 5.2 | 4.8 |
| GHG Emissions per Service Population | 4.6 | 4.2 | 3.8 |

NOTES:

AFOLU = agriculture, forestry, and other land use; GHG = greenhouse gas; IPPU = industrial processes and product use; MTCO_{2e} = metric tons of carbon dioxide equivalent

SOURCE: Draft 2045 CAP Appendix A.

Emissions in the inventories were included for five major sectors: stationary energy; transportation; waste; industrial processes and product use; and agriculture, forestry and other land use. These emissions are associated with a variety of sources, including direct combustion of fossil fuels, purchased electricity, transportation (gasoline and diesel), solid waste landfilling, potable water use,

⁷ To account for the global warming potential of different GHGs, emissions are often quantified and reported as carbon dioxide equivalents (CO_{2e}). For example, methane is a much more potent GHG than carbon dioxide (CO₂) with 28 times the global warming potential as CO₂; one ton of methane is equivalent to 28 tons of CO_{2e}.

wastewater treatment, and materials. These sources are described in greater detail in Appendix A of the Draft 2045 CAP. The largest sector of emissions in 2015 was transportation at 51.3 percent, followed by stationary energy at 34.5 percent; waste contributed 8.5 percent, followed by industrial processes and product use at 4.6 percent, and finally agriculture, forestry and other land use at 1.1 percent. Table 2-5 presents emissions for 2010, 2015, and 2018 for the unincorporated area.

2.5.2 Emissions Forecasts

The Draft 2045 CAP includes forecasts of GHG emissions for the future target years of 2030, 2035, and 2045. Two forecast scenarios were prepared: a “business-as-usual” or BAU forecast, and an “Adjusted” BAU forecast. The BAU forecast represents how emissions could change in the future if no federal, state, regional, or local action is taken. For the Draft 2045 CAP, the BAU scenario accounts for implementation of the Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the most current available RTP/SCS with a complete data set at the time of forecasting, which affects vehicle trips and vehicle miles traveled (SCAG 2016). The Adjusted BAU forecast accounts for the influence of adopted federal, state, and regional regulations, policies, and actions on GHG emissions within the unincorporated areas. These actions include the California Energy Commission’s 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery (CalRecycle) 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (EO S-01-07). **Table 2-6, *Business-as-Usual and Adjusted Business-as-Usual Greenhouse Gas Emissions Forecasts for Unincorporated Los Angeles County***, presents GHG emissions forecasts for 2030, 2035, and 2045.

**TABLE 2-6
BUSINESS-AS-USUAL AND ADJUSTED BUSINESS-AS-USUAL GREENHOUSE GAS EMISSIONS FORECASTS
FOR UNINCORPORATED LOS ANGELES COUNTY**

| Emissions Sector | BAU Forecast (MTCO ₂ e) | | | Adjusted BAU Forecast (MTCO ₂ e) | | |
|----------------------------|------------------------------------|------------------|------------------|---|------------------|------------------|
| | 2030 | 2035 | 2045 | 2030 | 2035 | 2045 |
| Transportation | 2,784,518 | 2,815,094 | 2,876,247 | 2,205,885 | 2,080,234 | 1,993,281 |
| Stationary Energy | 1,681,160 | 1,721,212 | 1,820,612 | 1,502,306 | 1,341,401 | 1,018,793 |
| Waste | 451,919 | 454,097 | 482,489 | 451,919 | 454,097 | 482,489 |
| IPPU | 259,605 | 267,981 | 284,731 | 259,605 | 267,981 | 284,731 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 |
| <i>Total GHG Emissions</i> | <i>5,238,062</i> | <i>5,319,243</i> | <i>5,524,939</i> | <i>4,480,574</i> | <i>4,204,572</i> | <i>3,840,154</i> |

NOTES:

AFOLU = agriculture, forestry, and other land use; BAU = business-as-usual; GHG = greenhouse gas; IPPU = industrial processes and product use; MTCO₂e = metric tons of carbon dioxide equivalent

SOURCE: Draft 2045 CAP Appendices A and B.

2.5.3 Greenhouse Gas Emissions Reduction Targets and Goals

The County evaluated a series of options for GHG emissions reduction targets during development of the OurCounty Sustainability Plan. The targets selected represent the County’s commitment to doing its fair share and meeting its requirements to help California achieve its ambitious statewide GHG targets. See **Table 2-7**, *State of California Greenhouse Gas Targets*.

**TABLE 2-7
STATE OF CALIFORNIA GREENHOUSE GAS TARGETS**

| Target Year | GHG Emissions Target | Corresponding Legislation |
|-------------|---|--|
| 2020 | 1990 levels | Assembly Bill 32, the California Global Warming Solutions Act (2006) |
| 2030 | 40% below 1990 levels | Senate Bill 32, the Global Warming Solutions Act (2006) |
| 2045 | 85% below 1990 levels (anthropogenic emissions) Net zero ^a | Assembly Bill 1279, the California Climate Crisis Act (2022) |

NOTES:

GHG = greenhouse gas

^a *Net zero* means that emissions of GHGs to the atmosphere are balanced by removals of GHGs over a period of time, as determined by the California Air Resources Board. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is removed from the atmosphere, both in natural sinks (such as trees) and through mechanical sequestration (such as direct air capture).

The Draft 2045 CAP’s 2030 GHG emission reduction target was selected based on guidance provided in the 2017 Scoping Plan and was developed to demonstrate consistency with the statewide 2030 target shown in Table 2-7. The Draft 2045 CAP’s 2030 target is based on a reduction from 2015 baseline levels and is equal to 40 percent below 2015 emissions (3.3 million MTCO_{2e}). This compares to the County’s 2030 BAU forecast of 5.2 million MTCO_{2e}. A 40 percent reduction below 2015 levels is also equivalent to a 48 percent reduction below the County’s 1990 GHG emissions levels, which is more stringent than the state target of a 40 percent reduction below 1990 levels by 2030.

The Draft 2045 CAP’s 2035 GHG emission reduction target was selected based on guidance provided in both the 2017 Scoping Plan and the 2022 Scoping Plan and was chosen as a milestone target to put the County on the trend to achieve a long-term aspirational goal of carbon neutrality by 2045. This target was developed to demonstrate consistency with the pathway needed to achieve the statewide 2045 target shown in Table 2-7. The Draft 2045 CAP’s 2035 target is based on a reduction from 2015 baseline levels and is equal to 50 percent below 2015 emissions (2.8 million MTCO_{2e}). This compares to the County’s 2035 BAU forecast of 5.3 million MTCO_{2e}. A 50 percent reduction below 2015 levels is also equivalent to a 57 percent reduction below the County’s 1990 GHG emissions levels.

The Draft 2045 CAP’s 2045 GHG emission reduction target was selected based on guidance provided in the 2022 Scoping Plan and was developed to demonstrate consistency with the statewide 2045 target for anthropogenic emissions shown in Table 2-7. The Draft 2045 CAP’s 2045 target is based on a reduction from 2015 baseline levels and is equal to 83 percent below

2015 emissions (958,000 MTCO_{2e}). This compares to the County’s 2045 BAU forecast of 5.5 million MTCO_{2e}. An 83 percent reduction below 2015 levels is also equivalent to an 85 percent reduction below the County’s 1990 GHG emissions levels, which in turn is equivalent to the state target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045.

Table 2-8, *Greenhouse Gas Emissions Targets and Goals for the Draft 2045 Climate Action Plan and the OurCounty Sustainability Plan*, compares the Draft 2045 CAP’s targets for 2030 and 2035, along with its aspirational 2045 goal, and the OurCounty Sustainability Plan targets for each future year considered.

TABLE 2-8
GREENHOUSE GAS EMISSIONS TARGETS AND GOALS FOR THE DRAFT 2045 CLIMATE ACTION PLAN AND THE OURCOUNTY SUSTAINABILITY PLAN

| Year | 2045 CAP (Unincorporated County only) | OurCounty Sustainability Plan (Unincorporated County and Cities) | GHG Emissions (MTCO _{2e}) (Unincorporated County) |
|------|---|--|--|
| 2025 | N/A | 25% below 2015 levels | 4,148,366 |
| 2030 | 40% below 2015 levels | N/A | 3,318,693 |
| 2035 | 50% below 2015 levels | 50% below 2015 levels | 2,765,578 |
| 2045 | 83% below 2015 levels (85% below 1990 levels) Carbon neutrality ^a | Carbon neutrality by 2045 for County operations (by 2050 Countywide) | 958,088 |

NOTES:

2045 CAP = 2045 Los Angeles County Climate Action Plan; GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent; N/A = not applicable; OurCounty Sustainability Plan = OurCounty: Los Angeles Countywide Sustainability Plan

^a The Draft 2045 CAP includes an aspirational goal, rather than a target, of carbon neutrality by 2045.

SOURCE: Draft 2045 CAP, including Appendices A and B.

Consistency with the CARB Scoping Plan and the state’s legal GHG emissions reduction targets is an appropriate metric by which to determine the significance of the Draft 2045 CAP’s GHG emissions. CEQA Guidelines Section 15064.4(b)(3) states that a lead agency “may consider a project’s consistency with the state’s long-term climate goals or strategies” when determining the significance of a project’s impacts.” Additionally, in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204, the California Supreme Court sanctioned the use of such a threshold: The court stated that assessing a project’s GHG impacts based on a “consistency with a GHG emission reduction plan” threshold of significance is legally permissible under CEQA.

The Draft 2045 CAP’s 2030 target of 40 percent below 2015 levels aligns with the statewide 2030 target as codified in SB 32 and both the 2017 Scoping Plan and the 2022 Scoping Plan. This is because the County’s 2030 target of 40 percent below 2015 levels is equivalent to a 48 percent reduction below 1990 levels, which exceeds the State of California’s target of 40 percent below 1990 levels. The County’s emissions in 2015 are estimated to have been 12 percent lower than 1990 emissions; this compares to statewide emissions, which were 2.3 percent higher in 2015 than in 1990 (CARB 2014, 2021). Consequently, the Draft 2045 CAP is more stringent than the state target both when comparing to 1990 levels and when comparing to per-capita emissions

levels.⁸ The Draft 2045 CAP's 2030 target also sets the County on a trend to achieve California's 2045 and 2050 GHG emissions reduction targets.

The Draft 2045 CAP's 2030 target is derived using the 2017 Scoping Plan's recommendations for local land use development to contribute their "fair share" of emissions reductions to the statewide GHG target for 2030. This is also consistent with the Association of Environmental Professionals (AEP) 2016 white paper recommendation for "Substantial Progress" thresholds for land use development to show consistency with statewide targets (AEP 2016). Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2030 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2030.

The Draft 2045 CAP's 2035 target of 50 percent below 2015 levels puts the County on a path to achieve the statewide 2045 target as stipulated in AB 1279. This is because the County's 2035 target of 50 percent below 2015 levels is equivalent to a 57 percent reduction below 1990 levels, which exceeds the state's target of 40 percent below 1990 levels by 2030. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2035 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2035.

The Draft 2045 CAP's 2045 target of 83 percent below 2015 levels aligns with the statewide 2045 target, as codified in AB 1279 and the 2022 Scoping Plan. This is because the County's 2045 target of 83 percent below 2015 levels is equivalent to an 85 percent reduction below the County's 1990 levels, which aligns with the State of California's target of 85 percent below 1990 levels. Consequently, the Draft 2045 CAP's target is equivalent to the state target. The Draft 2045 CAP's 2045 target also sets the County on a trend to achieve California's 2045 carbon neutrality target. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2045 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2045.

The Draft 2045 CAP's 2045 aspirational goal of carbon neutrality aligns with the statewide 2045 target of carbon neutrality stipulated in AB 1279.

GHG emissions and global climate change represent cumulative impacts of human activities and development projects locally, regionally, statewide, nationally, and worldwide. GHG emissions from all these sources cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects around the world have contributed and will continue to contribute to global climate change and its associated environmental impacts. Given that analysis of GHG emissions is cumulative in context, the 2030 and 2035 emissions targets discussed above represent the level by which the Draft 2045 CAP's emissions would not be cumulatively considerable.

⁸ The 2017 Scoping Plan Update recommends local government goals of 6 MTCO_{2e} per capita by 2030 and 2 MTCO_{2e} per capita by 2050. The 2045 CAP's targets are equivalent to 2.8 MTCO_{2e} per capita by 2030, 2.3 MTCO_{2e} per capita by 2030, and 0 MTCO_{2e} per capita by 2045.

2.5.4 Climate Action Plan Greenhouse Gas Emissions Reduction Potential

With implementation of the Draft 2045 CAP, the County aims to reduce emissions to 40 percent below the 2015 baseline by 2030 to approximately 3.3 million MTCO_{2e}; to reduce emissions to 50 percent below the 2015 baseline by 2035 to approximately 2.8 million MTCO_{2e}; to reduce emissions to 83 percent below the 2015 baseline by 2045 to approximately 958,000 MTCO_{2e}; and to be on a path toward carbon neutrality (zero net emissions) by 2045. With implementation of the Draft 2045 CAP, it is anticipated that Los Angeles County would exceed its reduction target by approximately 375,000 MTCO_{2e} in 2030, 496,000 MTCO_{2e} in 2035, and 13,000 MTCO_{2e} in 2045.

The Draft 2045 CAP is not sufficient to reduce Los Angeles County’s emissions to net zero by 2045; residual emissions are estimated to be 850,000 MTCO_{2e} in 2045. However, this EIR focuses on the 2045 CAP’s ability to achieve the 2030, 2035, and 2045 targets, and not the 2045 carbon-neutral aspirational goal to directly align with AB 1279’s statewide net-zero target. This is because the 2045 CAP can demonstrate a quantitative pathway for how the County can achieve the 2045 target but not the aspirational carbon-neutral goal, and because the 2045 target aligns with the statewide 2045 target as codified in AB 1279 and the 2022 Scoping Plan as discussed above. Further, the 2022 Scoping Plan states that local governments do not need to adopt carbon neutrality targets to align with the state’s goals, but should instead adopt targets and strategies that *support* the state’s climate goals that align with the *trajectory* to statewide carbon neutrality: “CARB recommends that jurisdictions focus on developing locally appropriate, plan-level targets that align with the trajectory to carbon neutrality” (CARB 2022c).

Table 2-9, *Estimated Greenhouse Gas Reduction Potential of Draft 2045 Climate Action Plan Strategies*, summarizes the County’s baseline 2015 GHG inventory, emissions projections, and target achievement anticipated through implementation of the Draft 2045 CAP.

**TABLE 2-9
ESTIMATED GREENHOUSE GAS REDUCTION POTENTIAL OF DRAFT 2045 CLIMATE ACTION PLAN STRATEGIES**

| Emissions Category | GHG Emissions and Reductions (MTCO _{2e}) | | |
|---|--|-----------|-----------|
| | 2030 | 2035 | 2045 |
| 2015 Baseline Emissions | 5,531,155 | 5,531,155 | 5,531,155 |
| Total Projected Emissions (BAU) | 5,238,062 | 5,319,243 | 5,524,939 |
| Total Projected Emissions (Adjusted BAU) | 4,480,574 | 4,204,572 | 3,840,154 |
| Estimated GHG Reductions from the Draft 2045 CAP | 1,580,723 | 2,033,420 | 2,988,956 |
| GHG Emissions with Implementation of the Draft 2045 CAP | 2,899,852 | 2,171,152 | 851,199 |
| County Target Emissions Levels | 3,318,693 | 2,765,578 | 958,088 |
| <i>Additional Reduction Below Target</i> | 418,841 | 594,425 | 106,890 |

NOTES:

2045 CAP = 2045 Los Angeles County Climate Action Plan; BAU = business-as-usual; MTCO_{2e} = metric tons of carbon dioxide equivalent.

SOURCE: Draft 2045 CAP; Draft 2045 CAP Appendix B.

2.6 Greenhouse Gas Reduction Strategies, Measures, and Actions

The Draft 2045 CAP relies on continued implementation of federal and state mandates, regional actions, and local actions for achieving the 2030 and 2035 targets. The Adjusted BAU forecast accounts for implementation of the federal and state mandates, and regional actions, discussed below.

2.6.1 State and Regional Actions

State and regional actions include regional land use and transportation planning efforts undertaken by SCAG, pursuant to the Sustainable Communities and Climate Protection Act of 2008 (SB 375), through its 2016 RTP/SCS, as well as renewable energy legislation at the state level through the Renewables Portfolio Standard and California Solar Programs. Although the 2020 RTP/SCS (Connect SoCal) has been adopted, SCAG had not publicly released its 2020 RTP/SCS transportation model by the time modeling for the Draft 2045 CAP was conducted; therefore, it was not possible to model the County's transportation emissions and emission reductions using the 2020 RTP/SCS transportation model. Additional state actions include vehicle fuel efficiency and lowering the carbon content of vehicle fuels. The following state and regional actions were considered in the Adjusted BAU emissions forecast:

- SCAG 2016 RTP/SCS, which affects vehicle trips and vehicle miles traveled.
- California Energy Commission's 2019 and 2023 Title 24 building energy efficiency standards.
- Renewables Portfolio Standard (SB 350 and SB 1020).⁹
- CalRecycle 75 percent waste diversion initiative (AB 341).
- Pavley and Advanced Clean Car Standards (AB 1493).¹⁰
- Low Carbon Fuel Standards (EO S-01-07).

⁹ SB 1020, signed by Governor Newsom on September 16, 2022, requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040; 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045; and 100 percent of electricity procured to serve all state agencies by December 31, 2035. This was not included in the adjusted BAU forecast because all customers in the County were automatically enrolled in the CPA's 100 percent renewable energy option starting in October 2022, and this was accounted for in Measure ES2, *Procure Zero-Carbon Electricity*. Further, the bill was enacted after the development of the adjusted BAU forecast.

¹⁰ The Advanced Clean Cars II (ACC II) regulations were approved by the Office of Administrative Law on November 30, 2022. First, the ACC II regulations amend the Zero-Emission Vehicle Regulation to require an increasing number of zero-emission vehicles, and they rely on advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric, and plug-in hybrid electric vehicles, to meet air quality and climate change emissions standards. These amendments support Governor Newsom's 2020 Executive Order N-79-20, which requires that all new passenger vehicles sold in California be zero emissions by 2035. Second, the Low-Emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions. The ACC II regulations were not included in the adjusted BAU forecast because ACC II is not incorporated in the version of CARB's EMFAC2021 model (v1.0.1), which was used to forecast GHG emissions from mobile sources.

2.6.1.1 Senate Bill 375 and Transit Priority Areas

An important regional action upon which the Draft 2045 CAP relies is the implementation of SB 375, which establishes mechanisms for the development of regional targets for reducing GHG emissions from passenger vehicles. SB 375 was adopted by the state on September 30, 2008. In compliance with SB 375, SCAG adopted the 2016 RTP/SCS in April 2016.

The 2016 RTP/SCS serves as the region’s comprehensive long-range transportation planning document by encouraging public policy decisions that will result in balanced investments for a wide range of multimodal transportation improvements. The RTP/SCS is intended to achieve the goals of SB 375, and can be implemented through existing and planned programs or policies. The RTP/SCS consists of strategies to guide new policies and infrastructure development based on recent household and job growth forecasts, market demand and economic studies, and transportation studies. The RTP/SCS addresses both Transit Priority Areas (TPAs) and High Quality Transit Corridors (also called *High Quality Transit Areas*, or HQTAs) to align regional transportation, land use, housing, and GHG emissions planning through the SCS, which illustrates how SCAG would meet a GHG emissions reduction target for passenger vehicles established by CARB. As defined in SB 743,¹¹ a *TPA* is an area within 0.5 mile of high-quality transit (such as a rail stop or a bus corridor) that provides or will provide at least 15-minute frequency service during peak hours by the year 2035, and an *HQT corridor* means a corridor with fixed-route bus service with service intervals no longer than 15 minutes during peak commute hours.

Consistent with the General Plan, future growth would be centered around transportation corridors and villages. Additional information is provided in the Housing Element, which addresses HQTAs and TPAs as a part of the Transit Oriented Districts (TODs), where the County encourages infill development, with pedestrian-friendly and community-serving uses near transit stops. The goal in these areas is to encourage walking, bicycling, and transit use. The General Plan adds new TODs and expands existing TODs from an approximately 0.25-mile radius to a 0.5-mile radius from transit stations (County Planning 2009).

2.6.2 County Measures and Implementing Actions

The Draft 2045 CAP is organized around 10 primary strategies that would be implemented by 25 measures and additional implementing actions that include new ordinances, policies, resolutions, programs, incentives, and outreach and education activities, which together would achieve the estimated reduction in GHG emissions presented above.

Each measure identifies a performance goal, tracking metrics, an implementation lead and partners, general timeline (short, medium, long), County costs (high-level, i.e., planning-level), and one or more implementing actions. At the strategy level, information is provided regarding

¹¹ To further the state’s commitment to the goals of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the California Global Warming Solutions Act of 2006 (AB 32), and the California Complete Streets Act of 2008 (AB 1358), SB 743 added Chapter 2.7, *Modernization of Transportation Analysis for Transit-Oriented Infill Projects*, to CEQA (Public Resources Code Section 21099). Key provisions of SB 743 reformed the CEQA methodology for analyzing the impacts of urban infill projects to aesthetics and parking and eliminated the measurement of auto delay, including level of service, as a metric for use in measuring traffic impacts in “transit priority areas.”

the co-benefits of implementing each strategy and the Draft 2045 CAP's alignment with relevant state and County initiatives, including the OurCounty Sustainability Plan. For any new ordinances developed pursuant to these measures, there will be a public input and review process and the County will consider many factors, including feasibility, cost, and exceptions such as weather or climate limitations.

The strategies and measures in the Draft 2045 CAP are described in more detail below. Additional detail for the measures, including implementing actions and tracking metrics, is provided in the Draft 2045 CAP itself. Also, implementing actions that could cause environmental impacts are listed in Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary.

2.6.2.1 Strategy 1: Decarbonize the Energy Supply

The County's goal to shift to a renewable energy-based electricity supply ensures equitable access to affordable, local, and reliable energy sources. A comprehensive community energy map would identify the geographic opportunities to deploy these distributed energy resources in an equitable manner. Common examples of distributed energy resources include rooftop solar photovoltaic (PV) units, battery storage, electric vehicles (EVs), and EV chargers. Prioritizing wildfire-prone communities would provide an alternative to the costly infrastructure upgrades that would be required to maintain uninterrupted power service. Enabling community-shared solar would allow access to local renewable energy for renters and other potential customers. The recently formed Clean Power Alliance (CPA) enables Los Angeles County to transition to a low-carbon energy future at an accelerated pace: "Starting in October 2022, customers in unincorporated areas of L.A. County will be getting 100% renewable energy—wind, solar, geothermal—from CPA, compared to the 50 percent clean energy they receive now... low-income customers on a subsidized rate will not have any rate increase" (CPA 2021; Los Angeles County Chief Sustainability Office 2021). The CPA is a community-choice aggregation program that offers CPA participants the option to increase their share of renewable energy. The County realistically can procure electricity that is generated by 100 percent renewable sources from the CPA with a realistic expectation of resiliency.

Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations.

The performance objectives for Measure ES1 are to reduce oil and gas operations 40 percent below 2015 levels by 2030, 60 percent by 2035, and 80 percent by 2045.

Measure ES2: Procure Zero-Carbon Electricity.

The performance objectives for Measure ES2 are to achieve 100 percent participation in the CPA's Green Power option, Southern California Edison's (SCE's) Green Rate option, or other available 100 percent zero-carbon electricity service by 2030 for municipal accounts, and for community accounts to achieve 96 percent participation in the CPA's Green Power option, SCE's Green Rate option, or other available 100 percent zero-carbon electricity service by 2030 (accounting for an approximately 4 percent opt-out rate).

Measure ES3: Increase Renewable Energy Production.

The performance objectives for Measure ES3 are to: (1) install rooftop solar PV on 20 percent of existing residential buildings (multifamily and single-family), 25 percent by 2035, and 35 percent by 2045; (2) install rooftop solar PV on 15 percent of existing

commercial buildings by 2030, 22 percent by 2035, and 32 percent by 2045; (3) install rooftop solar PV on 80 percent of new multi-family residential buildings by 2030, 85 percent by 2035, and 95 percent by 2045; (4) install rooftop solar PV installations on 40 percent of new commercial buildings by 2030, 50 percent by 2035, and 70 percent by 2045; (5) install 20,000 kilowatts of solar PV at County facilities by 2030; and (6) install rooftop solar PV at all affordable housing developments.

Measure ES4: Increase Energy Resilience.

The performance objectives for Measure E4 are to: (1) achieve community electricity storage and generation capacity equal to the community-wide 24-hour average usage by 2035/2045; (2) establish a community resilience hub program to equip community-serving County facilities (e.g., libraries, recreation centers, senior centers); (3) provide solar and battery systems sufficient to support emergency cooling and other emergency functions; (4) locate at least one hub in each County district, with a focus on vulnerable populations; (5) install microgrids based on a feasibility study; and (6) obtain a grant and establish a program to support an energy efficiency and assurance program for facilities that are large energy users and support critical community functions.

Measure ES5: Establish GHG Requirements for New Development.

The performance objective for Measure ES5 is to require that new development is consistent with the Draft 2045 CAP's goals and GHG emissions reduction targets and to develop reach codes, ordinances, and conditions of approval as needed to achieve this objective. All new development not requiring General Plan amendments shall be consistent with the Draft 2045 CAP.

2.6.2.2 Strategy 2: Increase Densities and Diversity of Land Uses near Transit

Strategy 2 focuses on coordinating land use development that leads to outcomes associated with reduced vehicle miles traveled, such as increased densities near transit, jobs-housing balance, and strategically located land uses that can reduce travel distances for many trip purposes.

Measure T1: Increase Density near High-Quality Transit Areas.

The performance objectives for Measure T1 are to: (1) achieve a minimum of 20 dwelling units (DUs) per acre (maximum of 30–150 DUs per acre) for HQTAs; (2) locate a majority of residential and employment centers in the unincorporated Los Angeles County within 1 mile of an HQTA; and (3) achieve a 27 percent increase in dwelling units within HQTAs. These densities would be achieved through implementation of the Housing Element Update rezoning programs.

Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use.

The performance objective for Measure T2 is to achieve a job density of 300 jobs per acre for all new projects with nonresidential development by 2030. For communities with an imbalance of jobs/housing (± 20 percent), community plans will identify and quantify strategies for bringing that imbalance below 20 percent. This density would be achieved through implementation of the Housing Element Update rezoning programs.

2.6.2.3 Strategy 3: Reduce Single-Occupancy Vehicle Trips

Strategy 3 focuses on development of transportation networks that increase the accessibility, comfort, and convenience of active travel modes to help reduce trips made in single-occupancy vehicles.

Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips.

The performance objective for Measure T3 is to increase bikeway miles by 300 percent by 2035. This measure also requires implementing the County Bicycle Master Plan and completing updates to County’s Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every five years.

Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation.

The performance objectives for Measure T4 are by 2030 to: (1) double transit service hours from 560,000 to 1.12 million; (2) install bus-only lanes and signal prioritization on all major transit thoroughfares; and (3) have a minimum of 75 percent of unincorporated Los Angeles County residents live within one-half mile of a bus or active transportation option;¹².

Measure T5: Limit and Remove Parking Minimums.

The performance objectives for Measure T5 are to: (1) reduce parking stipulations to reduce parking supply and encourage transit use; (2) unbundle parking costs to reflect the cost of parking; and (3) implement parking pricing to encourage “park-once” behavior.¹³

2.6.2.4 Strategy 4: Institutionalize Low-Carbon Transportation

Motorized vehicles needed for travel must transition to zero-carbon and near-zero-carbon technologies, such as EVs and zero-emission vehicles (ZEVs).¹⁴ Expanding access to charging infrastructure would address a key barrier to the adoption of EVs. The County will work to provide access to clean motorized transportation by developing programs that include e-bikes, zero-emission buses and shuttles, and electrified trains. The County also would endeavor to install EV charging stations (EVCSs) at County properties and in the public right-of-way, require new development to install EVCSs, and develop incentives and requirements for existing buildings to install EVCSs.

Strategy 4 also aims to reduce emissions from diesel- and gasoline-powered off-road equipment, including construction, landscaping, recreational, and commercial and industrial equipment. This strategy encourages the use of electric-powered equipment by establishing a goal for a portion of

¹² *Active transportation* refers to human-powered transportation and low-speed electronic-assist devices, such as bicycles, tricycles, wheelchairs, electric wheelchairs, scooters, skates, and skateboards.

¹³ The goal of “park-once” behavior is for visitors to find a parking structure and then walk to their various destinations (e.g., work, lunch, entertainment, shopping), rather than using the vehicle as the mode by which these various trips are accomplished.

¹⁴ A ZEV is a vehicle that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) or GHG under any possible operational modes or conditions. Examples of current-technology ZEV fuels include electricity, hydrogen, and compressed air.

all equipment to be electric-powered. Other technologies include hydrogen fuel cell and natural gas.

Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales.

The performance objectives¹⁵ for Measure T6 are to: (1) increase the fleetwide percentage of light-duty vehicles in the unincorporated Los Angeles County that are ZEVs to 30 percent by 2030, 50 percent by 2035, and 90 percent by 2045; (2) increase the sales of new light-duty vehicles in the unincorporated Los Angeles County that are ZEVs to 68 percent by 2030 and 100 percent by 2035; (3) install 37,000 total new public and private shared EVCSs (including EVCSs at County facilities and properties) by 2030, 74,000 by 2035, and 140,000 by 2045; and (4) install 5,000 total new EVCSs at County facilities and properties by 2030, 10,000 by 2035, and 25,000 by 2045.

Measure T7: Electrify County Fleet Vehicles.

The performance objectives for Measure T7 are to: (1) electrify the County bus and shuttle fleets by 2035; (2) increase the fleetwide percentage of light-duty vehicles in the County-owned fleet that are ZEVs to 35 percent by 2030, 60 percent by 2035, and 100 percent by 2045; and (3) support the state's goal that all new light-duty vehicle fleet purchases, with certain exceptions, will be ZEVs.

Measure T8: Accelerate Freight Decarbonization.

The performance objectives for Measure T8 are to: (1) increase the fleetwide percentage of medium-duty and heavy-duty vehicles in the unincorporated Los Angeles County that are ZEVs to 40 percent by 2030, 60 percent by 2035, and 90 percent by 2045; (2) increase the fleetwide percentage of medium-duty and heavy-duty trucks in the County-owned fleet that are ZEVs to 50 percent by 2030, 70 percent by 2035, and 95 percent by 2045; (3) ensure that 100 percent of the drayage truck fleet is ZEV by 2035; (4) ensure that 100 percent of sales of medium- and heavy-duty trucks are ZEVs by 2045; (5) require that all new warehouse loading docks have EVCSs by 2030; and (6) require that all existing warehouse loading docks have EVCSs by 2030.

Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment.

The performance objectives for Measure T9 are to: (1) increase the fleetwide percentage of off-road fleet and equipment in the unincorporated Los Angeles County that are ZEVs to 20 percent by 2030, 50 percent by 2035, and 95 percent by 2045; and (2) increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in the unincorporated Los Angeles County that are ZEVs to 50 percent by 2030, 75 percent by 2035, and 100 percent by 2045.

2.6.2.5 Strategy 5: Decarbonize Buildings

Building decarbonization requires two complementary components: procuring clean, renewable sources of energy and shifting building energy loads for heating and cooking to electricity or renewable fuels rather than fossil fuels. Distributed, on-site renewable energy can be promoted in a variety of ways. Because grid-supplied energy is now cleaner than on-site natural gas use, building

¹⁵ The performance objectives provided here serve as a general metric and may be refined upon completion of the Zero Emission Vehicle Master Plan.

electrification and, to some extent, the use of biomethane on-site in buildings are key to decarbonization.

Measure E1: Transition Existing Buildings to All-Electric.

The primary performance objectives for Measure E1 are to: (1) electrify 25 percent of the existing residential buildings by 2030, 40 percent by 2035, and 80 percent by 2045; (2) electrify 15 percent of the existing nonresidential buildings by 2030, 25 percent by 2035, and 60 percent by 2045; and (3) require zero net energy (ZNE)¹⁶ for 50 percent of all major renovations by 2030, 75 percent by 2035, and 100 percent by 2045.

Measure E2: Standardize All-Electric New Development.

The performance objectives for Measure E2 are to: (1) require that all applicable new buildings are all-electric (taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face), such that 90 percent of new residential and nonresidential buildings are all-electric by 2030, 95 percent by 2035, and 100 percent by 2045; and (2) require that all applicable new residential and nonresidential buildings are ZNE, such that 90 percent of new residential and nonresidential are ZNE by in 2030.

Measure E3: Implement Other Decarbonization Actions.

The performance objectives of Measure E3 are to: (1) increase the proportion of biomethane in the utility natural gas mix to 20 percent by 2030, 30 percent by 2035, and 80 percent by 2045; (2) use low-carbon, carbon-neutral, or negative-carbon concrete for all new construction; and (3) replace high-global-warming-potential refrigerants with low-global-warming-potential refrigerants 15 percent by 2030, 25 percent by 2035, and 50 percent by 2045.

2.6.2.6 Strategy 6: Improve Efficiency of Existing Building Energy Use

Increasing the energy efficiency of existing buildings reduces GHG emissions by decreasing the consumption of natural gas, electricity that is not 100 percent carbon-free, and other nonrenewable energy sources. Energy efficiency improvements can be achieved through a variety of methods, including energy audits, benchmarking, appliance rebates, building retrofits, and education of consumers. In addition to reducing GHG emissions, energy-efficient building improvements can lower energy bills, create local green jobs, and improve the longevity of existing buildings. The County will improve energy efficiency of existing buildings through coordination with agencies and organizations, as well as public outreach.

Measure E4: Improve Energy Efficiency of Existing Buildings.

The performance objective of Measure E4 is to reduce building Energy Use Intensity (thousand British thermal units per square foot) below 2015 levels by 20 percent for residential, 15 percent for industrial, and 25 percent for commercial by 2030; 25 percent for residential and industrial and 35 percent for commercial by 2035; and 50 percent for residential, industrial, and commercial by 2045.

¹⁶ *Zero net energy* is defined by the U.S. Department of Energy as follows: “An energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy” (U.S. Department of Energy 2015).

2.6.2.7 Strategy 7: Conserve Water

The GHG emissions associated with water consumption are the result of the electricity and natural gas used to pump, treat, and convey water. Strategy 7 aims to reduce GHG emissions by decreasing the total amount of water consumed, as well as the energy intensity of the water consumed.

Measure E5: Increase Use of Recycled Water and Gray Water Systems.

The performance objectives of Measure E5 are to: (1) meet 25 percent of total unincorporated Los Angeles County water demand with recycled water, gray water, or potable reuse¹⁷ by 2025, 50 percent by 2030, and 90 percent by 2045; (2) meet 30 percent of water demand for agricultural and industrial uses with recycled water or gray water by 2025, 50 percent by 2030, and 80 percent by 2045; and (3) implement a successful direct potable reuse project by 2025.

Measure E6: Reduce Indoor and Outdoor Water Consumption.

The performance objectives of Measure E6 are to: (1) reduce total water use to less than 110 gallons per capita per day (GPCD) by 2030, 100 GPCD by 2035, and 85 GPCD by 2045; (2) reduce outdoor landscaping water use to 10 percent by 2030, 20 percent by 2035, and 50 percent by 2045; and (3) reduce municipal water consumption 10 percent by 2030, 20 percent by 2035, and 50 percent by 2045.

2.6.2.8 Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream

The County would reduce GHG emissions from waste in a manner that prioritizes overall environmental benefit. This would start with expanded efforts to reduce and reuse waste at the source. Incentives and educational programs would be used to increase awareness and bolster participation in recycling programs. Organic waste, which is responsible for the vast majority of GHG emissions in the waste sector, would be addressed through source reduction, donation of edible food, and composting. Organic waste would also be addressed through waste conversion technologies such as anaerobic digestion and biomass conversion, which produce biogas that can be used to produce heat and electricity, pipeline gas, vehicle fuel, and other beneficial products like compost and fertilizer. At wastewater treatment plants, biogas would be captured and converted into electricity, heat, pipeline gas, or vehicle fuel.

Measure W1: Institutionalize Sustainable Waste Systems and Practices.

The performance objectives of Measure W1 are to: (1) increase the total unincorporated Los Angeles County waste diversion rate to 85 percent by 2030, 90 percent by 2035, and 95 percent by 2045; (2) reduce the disposal of single-use plastics in landfills; (3) increase the Construction and Demolition Ordinance to 70 percent diversion; and (4) increase the percentage of construction and demolition debris reused in new projects (private and public).

¹⁷ The California Water Boards define *direct potable reuse* as “the planned introduction of recycled water either directly into a public drinking water system, or into a raw water supply immediately upstream of a drinking water treatment plant” (California Water Boards 2022).

Measure W2: Increase Organic Waste Diversion.

The performance objectives of Measure W2 are to maximize organic waste diversion to support the unincorporated Los Angeles County’s overall waste diversion rate goals identified in Measure W1.

2.6.2.9 Strategy 9: Conserve and Connect Wildlands and Working Lands

Forests, chaparral shrublands, and wetlands serve as carbon sinks that can sequester carbon dioxide resulting from human activity. When these natural and working lands are converted to residential and other urbanized uses, that stored carbon dioxide is released into the atmosphere. Conserving and restoring these lands keeps carbon in the ground and provides a multitude of benefits, from maintaining biodiversity in the Significant Ecological Areas (SEAs)¹⁸ to preserving the character of the County’s rural areas.

Measure A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands.

The performance objectives of Measure A1 are to: (1) reduce the average annual amount of natural land converted for urbanized uses 25 percent by 2030 (53 hectares conserved annually), 50 percent by 2035 (106 hectares conserved annually), and 75 percent by 2045 (159 hectares conserved annually); (2) conserve and restore 2,000 acres of natural forest lands by 2030, 4,000 acres by 2035, and 6,000 acres by 2045; and (3) manage 10,000 acres of wildland for wildfire risk reduction and carbon stock savings by 2030, 20,000 acres by 2035, and 50,000 acres by 2045.

2.6.2.10 Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

Agricultural practices can either strip the environment of its rich resources or work to maintain and utilize the resources in ways that benefit farms and the environment. Farming practices that increase biodiversity, enrich soils, improve watersheds, and enhance ecosystem services are known as *regenerative agriculture practices*. These practices can have positive impacts for the climate, reducing GHG emissions and supporting practices that are environmentally friendly. Additionally, adding tree canopy cover and green spaces back into developed areas can help sequester carbon and reduce the urban heat island effect.

Measure A2: Support Regenerative Agriculture.

The performance objectives of Measure A2 are to reduce the quantity of synthetic fertilizers used/applied and increase in the number of acres of cover crops using regenerative agriculture techniques.

¹⁸ County Municipal Code Section 22.14.190–S defines an *SEA* as “land that is identified to hold important biological resources representing the wide-ranging biodiversity of the County, based on the criteria for SEA designation established by the General Plan and as mapped in the adopted SEA Policy Map.” To protect such areas, the County’s SEA Ordinance “establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County’s natural biodiversity with private property rights” (County Planning 2022).

Measure A3: Expand Unincorporated Los Angeles County’s Tree Canopy and Green Spaces.

The performance objectives¹⁹ of Measure A3 are to: (1) plant 130,000 total new trees by 2030, 200,000 total new trees by 2035, and 270,000 total new trees by 2045; and (2) develop and implement an Urban Forest Management Plan.

2.6.3 Greenhouse Gas Reduction Potential of the Draft 2045 Climate Action Plan Measures

Table 2-10, *Estimated Greenhouse Gas Reduction Potential of Draft 2045 Climate Action Plan Measures*, shows the GHG emissions reduction potential of 19 of the Draft 2045 CAP’s measures. Emissions reductions were calculated for these measures given the quantitative nature of their performance goals and the availability of underlying activity and emissions data to facilitate emissions modeling. The remaining Draft 2045 CAP measures were not quantified given their more qualitative and supportive nature, or because of data or modeling limitations. In general, implementing actions are not quantified individually, but rather are accounted for collectively in the GHG emissions reduction estimates for the measures.

TABLE 2-10
ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTION POTENTIAL
OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES

| Sector and Measure | 2030 MTCO ₂ e ^a | | 2035 MTCO ₂ e ^a | | 2045 MTCO ₂ e ^a | |
|---|---------------------------------------|----------------------|---------------------------------------|----------------------|---------------------------------------|----------------------|
| | Number | Percent ^b | Number | Percent ^b | Number | Percent ^b |
| Stationary Energy | | | | | | |
| ES1 Develop a Sunset Strategy for All Oil and Gas Operations | 28,368 | 2% | 40,178 | 2% | 52,148 | 2% |
| ES2 Procure Zero-Carbon Electricity | 477,188 | 30% | 317,915 | 16% | 0 | 0% |
| ES3 Increase Renewable Energy Production | 5,919 | 0.4% | 5,219 | 0.3% | 0 | 0% |
| E1 Transition Existing Buildings to All-Electric | 176,072 | 11% | 280,988 | 14% | 477,221 | 16% |
| E2 Standardize All-Electric New Development | 7,452 | 0.5% | 12,588 | 0.6% | 22,639 | 0.8% |
| E4 Improve Energy Efficiency of Existing Buildings | 22,274 | 1.4% | 41,255 | 2.0% | 203,455 | 6.8% |
| E6 Reduce Indoor and Outdoor Water consumption | 10,575 | 0.7% | 15,122 | 0.7% | 11,764 | 0.4% |
| Transportation | | | | | | |
| T1 Increase Density near High-Quality Transit Areas | 27,357 | 1.7% | 26,019 | 1.3% | 25,276 | 0.8% |
| T2 Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use | 39,184 | 2.5% | 37,267 | 1.8% | 36,204 | 1.2% |
| T3 Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips | 0 | 0.0% | 2,811 | 0.1% | 2,730 | 0.1% |

¹⁹ The performance objectives provided here serve as a general metric and may be refined upon completion of the Urban Forest Management Plan.

TABLE 2-10 (CONTINUED)
ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTION POTENTIAL
OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES

| Sector and Measure | | 2030 MTCO ₂ e ^a | | 2035 MTCO ₂ e ^a | | 2045 MTCO ₂ e ^a | |
|---|---|---------------------------------------|----------------------|---------------------------------------|----------------------|---------------------------------------|----------------------|
| | | Number | Percent ^b | Number | Percent ^b | Number | Percent ^b |
| Transportation (cont.) | | | | | | | |
| T4 | Encourage Transit, Active Transportation, and Alternative Modes of Transportation | 11,465 | 0.7% | 10,904 | 0.5% | 10,593 | 0.4% |
| T6 | Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales | 482,515 | 31% | 820,125 | 40% | 1,535,101 | 51% |
| T7 | Electrify County Fleet Vehicles | 29,743 | 2% | 24,335 | 1.2% | 10,119 | 0.3% |
| T8 | Accelerate Freight Decarbonization | 86,168 | 5% | 103,528 | 5% | 176,638 | 6% |
| T9 | Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment | 8,373 | 0.5% | 21,819 | 1.1% | 44,964 | 1.5% |
| Waste | | | | | | | |
| W1 | Institutionalize Sustainable Waste Systems and Practices | 154,514 | 10% | 248,362 | 12% | 342,934 | 11% |
| Agriculture, Forestry and Other Land Use | | | | | | | |
| A1 | Conserve Agricultural and Working Lands, Forest Lands, and Wildlands | 8,953 | 1% | 17,906 | 1% | 26,858 | 1% |
| A3 | Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces | 4,602 | 0.3% | 7,080 | 0.3% | 10,310 | 0.3% |
| Total Local Reductions^c | | 1,580,723 | 100% | 2,033,420 | 100% | 2,988,956 | 100% |

NOTES:

^a MTCO₂e = metric tons of carbon dioxide equivalent; ZEV = zero-emission vehicle

^b "Percent" = Percent of Total Reduction

^c Numbers may not add to 100% due to rounding.

SOURCE: Draft 2045 CAP, Chapter 3

As shown in the table, in 2030, nearly half (46 percent) of the anticipated reductions would be attributed to energy-related measures, including zero-carbon electricity, the sunset strategy for oil and gas operations, electrification of the existing building stock, local renewable energy generation, all-electric new development, and energy efficiency. Approximately 43 percent of the anticipated reductions in 2030 are attributed to transportation-related measures, including the expansion of the ZEV market share, increased density and jobs/housing balance, mass transit service and alternative modes of transportation, County fleet vehicle electrification, freight decarbonization, and zero-emission off-road technologies. Another significant local action in 2030 includes implementation of sustainable waste systems, representing approximately ten percent of the total local reductions. In 2030, agriculture, forestry and other land use programs make up a relatively small portion of the total local reductions, at one percent.

2.7 2045 Climate Action Plan Implementation

In the Draft 2045 CAP, Appendix E, Table E-1 identifies implementation details for the strategies, measures, and actions. These details include timing-related performance objectives and tracking metrics that represent guideposts for the successful implementation of each measure and for the 2045 CAP as a whole. Although many of these guideposts are not specific mandates, they may evolve as the 2045 CAP is implemented and adapted over time. The timing indicated in Draft 2045 CAP Table E-1 (summarized below) reflects the best information available during development of this Recirculated Draft EIR about when the impacts of projects facilitated by the Draft 2045 CAP may be expected to occur. See **Table 2-11, Anticipated 2045 CAP Implementation Timing**. The table shows (consistent with the Draft 2045 CAP, Table E-1) that implementation of the Draft 2045 CAP would occur over three phases, which take advantage of easier short-term measures and actions to meet the 2030 target and then build up to more complex solutions as the 2035 target and 2045 target dates approach.

- **Phase 1: Short-Term Actions (2024–2030)**—Short-term actions that are high-priority with large emissions reductions that would lay the foundation for longer term actions. The short-term target of the Draft 2045 CAP is to reduce GHG emissions in the County by 40 percent below 2015 levels by 2030.
- **Phase 2: Medium-Term Actions (2031–2035)**—Actions needed to achieve the 2030 or 2035 GHG emissions reduction targets that may need additional time, funding, or new technology to implement. The medium-term target of the Draft 2045 CAP is to reduce GHG emissions in the County by 50 percent below 2015 levels by 2035.
- **Phase 3: Long-Term Actions (2036–2045)**—Actions needed to achieve the 2045 GHG emissions reduction target that may need substantial time, funding, or new technology to implement. The long-term target of the Draft 2045 CAP is to reduce GHG emissions in the County by 83 percent below 2015 levels by 2045. The long-term aspirational goal of the Draft 2045 CAP is to achieve carbon neutrality in the County by 2045.

Although Table 2-11 indicates when a measure would first be implemented, there may be environmental impacts and GHG emission reduction benefits resulting from implementation that would typically continue and increase following initial implementation. For example, although implementing Strategy 1 (Decarbonize the Energy Supply) measures could result in short-term adverse impacts, it also would result in benefits that would increase beyond the short term to help achieve the related performance objectives of reducing oil and gas operations 40 percent by 2030, 60 percent by 2035, and 80 percent by 2045. Anticipated implementation timing is identified in Table 2-11; the analysis of related impacts is summarized in EIR Section 3.1.3.7 and is documented on a resource-by-resource basis in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.

**TABLE 2-11
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING**

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|--|-----------------------------------|------------------------------------|----------------------------------|
| Strategy 1: Decarbonize the Energy Supply | | | |
| ES1 Develop a Sunset Strategy for All Oil and Gas Operations: Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal. | X | X | X |
| ES1.1 Collaborate with other local jurisdictions and utilities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities. Develop an ordinance. | X | | |
| ES1.2 Develop a policy that requires the examination of all active, idle, and abandoned oil wells for fugitive emissions of GHGs. Coordinate with federal and state agencies conducting fugitive emissions data. | X | | |
| ES1.3 Develop a carbon removal strategy that considers direct air capture and carbon and sequestration (CCS). | | X | |
| ES2 (Core) Procure Zero-Carbon Electricity: Supplying the unincorporated Los Angeles County’s power demand with zero-carbon electricity is critical to achieving significant GHG emissions reductions. The Clean Power Alliance (CPA) is a nonprofit and community choice energy provider that currently serves 32 communities across Southern California. | X | | |
| ES2.1 Transition all County facilities within unincorporated areas to CPA’s 100% Green Power option, SCE’s 100% Green Rate option, or other available 100% renewable electricity service. | X | | |
| ES2.2 Complete enrollment of the community in CPA’s 100% Green Power or SCE’s Green Rate option. | X | | |
| ES3 Increase Renewable Energy Production: Expand local solar power generation on existing and new development and for County projects. | X | X | X |
| ES3.1 Require rooftop solar PV for all new development. | X | | |
| ES3.2 Install rooftop solar PV at existing buildings. | X | | |
| ES3.3 Identify and install solar PV systems at existing viable County facilities and properties. | X | | |
| ES3.4 Explore the feasibility to install community-shared solar facilities on County properties where opportunities exist. | | X | |
| ES3.5 Require and incentivize renewable energy for affordable housing developments for both new development and existing buildings. | X | | |
| ES3.6 Streamline and prioritize permitting for solar and battery storage projects | X | | |
| ES4 Increase Energy Resilience: Expand energy storage and microgrids throughout the community and for County operations. | | X | X |
| ES4.1 Develop a program to deploy community resilience hubs at scale. | X | X | |
| ES4.2 Invest in energy storage and microgrids at critical County facilities through CPA’s Power Ready Program. | X | X | |
| ES4.3 Develop a publicly accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids to improve energy resiliency. | | X | X |
| ES4.4 Conduct feasibility studies to identify priority areas for solar and storage, combined with building- and community-scale microgrids and alternative technologies such as fuel cells and grid paralleling, to support demand management and peak shaving to increase grid resilience. Study implementation, costs, barriers, and obstacles and identify partnerships. Adopt regulations that establish this use and standards for its development. Limiting peak energy demand can eliminate or reduce the use of high-carbon peaker plants. | X | X | |
| ES4.5 Develop a Countywide program to promote energy efficiency and resilience measures in facilities providing critical community services. | X | X | |

TABLE 2-11 (CONTINUED)
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|---|-----------------------------------|------------------------------------|----------------------------------|
| Strategy 1: Decarbonize the Energy Supply (cont.) | | | |
| ES5 Establish GHG Requirements for New Development: Develop and implement requirements to ensure that new development is consistent with the 2045 CAP goals as well as its milestone targets for 2030, 2035, and 2045. These requirements include applicant completion of a project review consistency checklist for non-CEQA exempt new development requiring discretionary approvals to demonstrate consistency with the 2045 CAP. To demonstrate consistency with the 2045 CAP, all projects that do not screen out of the 2045 CAP consistency review process must implement either: 1) all feasible applicable checklist measures, or 2) for infeasible checklist measures, alternative project emission reduction measures. The project review checklist will be used in one two ways: 1) for projects consistent with the 2045 CAP, to demonstrate CAP consistency that allows for streamlined project-specific CEQA GHG analysis, or 2) for projects required or electing to prepare project-specific CEQA GHG analyses, to demonstrate that all feasible applicable checklist measures or alternative project emission reduction measures have nevertheless been implemented, either as project features or GHG mitigation measures. Projects that do not implement all feasible applicable checklist measures or alternative project emission reduction measures may have significant GHG impacts because they could conflict with an applicable GHG reduction plan per Guidelines Appendix G Section VII. They may also be inconsistent with the General Plan because the CAP is a component of the Air Quality Element. In addition, the County will assess the feasibility of developing a GHG offsets/credit program to create a pathway toward achieving the aspirational 2045 goal of carbon neutrality. | X | X | X |
| ES5.1 Identify new requirements for new development, including reach codes, ordinances, and conditions of approval to reduce GHG emissions from energy use, transportation, waste, water, and other sources. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. | X | | |
| ES5.2 Implement the 2045 CAP consistency review checklist for new development to demonstrate consistency with the 2045 CAP's strategies, measures, and actions. | X | | |
| ES5.3 Evaluate a program for reducing GHG emissions for new development that require General Plan amendments. | X | | |
| ES5.4 Establish an Offsite GHG Reduction Program for new development to use as a GHG reduction or mitigation pathway for 2045 CAP compliance and to fund programs for reducing GHG emissions in the built environment. | X | | |
| Strategy 2: Increase Densities and Diversity of Land Uses Near Transit | | | |
| T1 Increase Density Near High-Quality Transit Areas: Increase housing opportunities that are affordable and near transit, to reduce VMT. | X | | |
| T.1.1 Incentivize residential and community-serving uses to be developed in high quality transit areas (HQTAs), while ensuring inclusion of vital public amenities, such as parks and active transportation infrastructure. | X | | |
| T.1.2 Develop land use tools that will increase the production of a diversity of housing types, such as missing middle housing. | X | | |
| T.2 Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use: Increasing density and the mix of land uses can help reduce single-occupancy trips, the number of trips, and trip lengths. | X | | |
| T.2.1 Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease VMT. | X | | |

**TABLE 2-11 (CONTINUED)
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING**

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|---|-----------------------------------|------------------------------------|----------------------------------|
| Strategy 3: Reduce Single-Occupancy Vehicle Trips | | | |
| T3 Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles. | X | X | X |
| T3.1 Create a more connected and safer bikeway network by expanding bikeway facilities and implementing protected and separated lanes. | | X | X |
| T3.2 Implement and regularly update the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans. | | | X |
| T3.3 Collaborate with Metro and other transit providers to enhance pedestrian and bicycle environments through energy efficient lighting and shading to promote active transportation. Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability. Develop and implement a Shaded Corridors Program. | | X | |
| T4 Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: Transit service, micro mobility services (such as bike-share, scooter-share, and drone deliveries), and access to these transportation options can help reduce VMT. | X | X | X |
| T4.1 Expand and improve the frequency of service of unincorporated Los Angeles County shuttles and explore new mobility services, such as micro transit, autonomous delivery vehicles, micro mobility, and on-demand autonomous shuttles. | | X | |
| T4.2 Collaborate with Metro and other transit providers to install bus-only lanes and/or signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate. | | | X |
| T4.3 Collaborate with Metro and other transit providers to develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit. | | X | |
| T4.4 Collaborate with Metro and other transit providers to set aside maintenance funds to ensure that public transit facilities, including stations and stops, are safe and clean to enhance the transit experience and increase ridership. | X | | |
| T4.5 Collaborate with Metro and other transit providers to develop and implement a transportation demand management (TDM) ordinance that requires future development projects to incorporate measures such as subsidized transit passes and car share. | X | X | |
| T4.6 Offer free and/or discounted transit passes for students, youth, seniors, people with disabilities, and low-income populations. | X | | |
| T4.7 Expand and improve the County's Telecommuting Policy, using data gathered through the alternative work program. | X | | |
| T4.8 Establish temporary and permanent car-free areas. | | | X |
| T4.9 Develop a VMT bank or exchange program. | X | X | |
| T4.10 Collaborate with Metro and other transit providers to ensure that all new forms of public transportation (e.g., new bus lines, new light rail service) are low- or zero-emission. | X | X | |
| T5 Limit and Remove Parking Minimums: Parking strategies such as parking maximums, unbundling parking, or market price parking can help reduce VMT. | X | | |
| T5.1 Implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within one-half mile of high-quality transit stops, creation and expansion of parking benefit districts, development of planning strategies for transitioning land dedicated to parking to alternative transit and public uses, and incentives for developers to provide less than maximum allowable parking. | X | | |

TABLE 2-11 (CONTINUED)
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|---|-----------------------------------|------------------------------------|----------------------------------|
| Strategy 4: Institutionalize Low-Carbon Transportation | | | |
| T6 (Core) Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales: Increase the unincorporated Los Angeles County's ZEV market share and vehicle penetration to the maximum extent feasible to replace internal combustion engine vehicles. Set targets for reducing total gasoline and diesel vehicle fuel sales. | X | X | X |
| T6.1 Develop a Zero Emission Vehicle Master Plan. Collaborate with other regional agencies and jurisdictions to share infrastructure. | X | | |
| T6.2 Install EVCSs at existing buildings and right-of-way infrastructure throughout unincorporated Los Angeles County. | X | X | X |
| T6.3 Require all new development to install EVCSs through a condition of approval/ordinance. Residential development must install EVCSs; nonresidential development must install EVCSs at a percentage of total parking spaces. | X | | |
| T6.4 Install EVCSs at County facilities and properties for public, employee, and fleet use, prioritizing locations in BIPOC and disadvantaged communities. Complete an assessment of EV charging locations, identifying gaps in publicly accessible stations for BIPOC and disadvantaged communities. Provide EV purchase incentive information in multiple languages to frontline communities. | X | X | X |
| T6.5 Continue to pilot vehicle-grid integration applications at workplaces to maximize the benefits that daytime charging for plug-in electric vehicles (PEVs) can have on the grid, including demand response to reduce peak loads and energy storage during periods of renewable overproduction. | X | | |
| T6.6 Expand electric options for active transportation, such as electric scooters and e-bikes. Provide access to neighborhood electric vehicles, such as golf carts, shared EVs, and others. Develop policies and/or ordinances to expand these options. | | X | |
| T6.7 Increase the use of green hydrogen vehicles. Use biomethane and biogas created from organic waste as a "bridge fuel" to achieve 100% green hydrogen and electric vehicles. Consider the use of other zero-emission fuel sources. | | X | |
| T7 Electrify County Fleet Vehicles: Electrify the County bus, shuttle, and light-duty vehicle fleet and shuttles. | X | X | |
| T7.1 Electrify the County bus fleet, inmate transfer fleet, and shuttles, and partner with transit agencies for group purchasing and siting of shared charging and/or fueling infrastructure. ^M | X | X | |
| T7.2 Electrify light-duty County fleet vehicles. ^M | X | X | |
| T8 (Core) Accelerate Freight Decarbonization: Incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure. | X | X | X |
| T8.1 Implement freight decarbonization technologies along highway corridors passing through unincorporated Los Angeles County communities through programs such as zero-emission delivery zones. | | X | X |
| T8.2 Create an ordinance requiring new goods movement facilities to install alternative fueling infrastructure | X | | |
| T8.3 Adopt Building Performance Standards for existing goods movement facilities and reach code requirements for major retrofits and renovations that require alternative fueling infrastructure for medium- and heavy-duty vehicles. Require goods movement facilities to install alternative fueling infrastructure for medium- and heavy-duty vehicles at the point of sale. | X | | |
| T8.4 Streamline permitting of ZEV charging and fueling infrastructure for medium- and heavy-duty vehicles. | X | X | |
| T8.5 Electrify the County medium- and heavy-duty vehicle fleet. | X | X | X |

**TABLE 2-11 (CONTINUED)
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING**

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|--|-----------------------------------|------------------------------------|----------------------------------|
| Strategy 4: Institutionalize Low-Carbon Transportation (cont) | | | |
| T9 Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment: Prohibit the use of gas- and diesel-powered small (≤25 horsepower) off-road equipment and increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment. | X | | |
| T9.1 Partner with the South Coast Air Quality Management District and Antelope Valley Air Quality Management District to increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment. | X | | |
| T9.2 Identify types of ZEV equipment and green hydrogen equipment that are commercially available (e.g., forklifts, loaders, welders, saws, pumps, fixed cranes, air compressors, sweepers, aerial lifts, pressure washers) and require the use of these types of equipment on all new projects through an ordinance or conditions of approval. | X | | |
| T9.3 Require, to the maximum extent feasible, the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment for County projects. ^M | X | | |
| Strategy 5: Decarbonize Buildings | | | |
| E1 (Core) Transition Existing Buildings to All-Electric: As the carbon intensity of grid-supplied energy decreases, decarbonization must be combined with building electrification, shifting more load toward cleaner sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to electrify applicable existing buildings. Biomethane is another preferred alternative to fossil natural gas; however, the existing opportunities for widespread use of biomethane are limited. Consider the use of other zero-emission fuel sources for buildings. | X | X | X |
| E1.1 Adopt Building Performance Standards for existing buildings and reach code requirements for major retrofits and renovations that require electric water and space heating. Require buildings to retrofit natural gas water and space heating to electric water and space heating at the point of sale. | X | X | |
| E1.2 Increase alternatives to natural gas uses, such as for cooking, in existing buildings. Establish carbon intensity limits for existing nonresidential and residential buildings over a certain size. | X | X | |
| E1.3 Adopt a ZNE ordinance for building renovations, based on certain criteria (such as commercial facilities with 10,000 square feet of additions). Adopt ZNE Building Performance Standards for certain buildings not undergoing major renovations or retrofits. | X | | |
| E1.4 Create a plan for phased electrification of County facilities. Phase out gas-powered infrastructure and appliances as they need replacement. | X | X | X |
| E1.5 Create a comprehensive fund aggregation program to support energy efficiency, decarbonization, and resilience in new and existing affordable housing. | X | X | |
| E1.6 Create an energy retrofit accelerator to provide a one-stop shop for guidance, technical support, training, and access to aggregated funds to support building owners and contractors. Target support to low-income communities and affordable housing. | X | X | |
| E2 Standardize All-Electric New Development: This measure aims to electrify all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. | X | | |
| E2.1 Adopt an ordinance requiring all applicable new buildings to be fully electric with no natural gas hookups. Include affordable housing considerations in these requirements, and develop supporting measures (financial support, technical assistance, or other incentives) to defray potential additional first costs in order to maintain housing affordability. | X | | |
| E2.2 Adopt a ZNE ordinance for all new residential buildings built after 2025 and all new nonresidential buildings built after 2030. Include renter protections for affordable housing. Provide affordable housing set-aside to offset first cost. | X | | |

TABLE 2-11 (CONTINUED)
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|---|-----------------------------------|------------------------------------|----------------------------------|
| Strategy 5: Decarbonize Buildings (cont.) | | | |
| E2.3 Adopt CALGreen Code Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments. | X | | |
| E3 Other Decarbonization Actions: Reduce the life-cycle carbon intensity of building materials and phase out the use of high-GWP refrigerants. | X | X | |
| E3.1 Work with utilities to incorporate increasing levels of biomethane into the natural gas mix. | X | X | |
| E3.2 Adopt a concrete code for new construction that limits embodied carbon emissions; specify code requirements of carbon intensity limit for concrete. | X | X | |
| E3.3 Adopt reach code requirements that include performance standards to limit the amount of embodied carbon associated with construction. | X | | |
| E3.4 Develop a refrigerant management program that establishes a phase-out timeline for high-GWP refrigerants in existing buildings, incentivizes industrial equipment replacement, and specifies requirements for new development to use low-GWP refrigerants. | X | | |
| Strategy 6: Improve Efficiency of Existing Building Energy Use | | | |
| E4 Improve Energy Efficiency of Existing Buildings: Retrofit existing building stock to reduce overall unincorporated Los Angeles County energy use. | X | X | |
| E4.1 Adopt Building Performance Standards for energy efficiency in existing buildings. Require all buildings to perform energy efficiency retrofits at the point of sale. Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN). Include affordable housing considerations in these requirements, and develop additional renter protections and supporting measures (financial support, technical assistance, or other incentives) to limit the amount of first costs being passed on to low-income renters. (See Actions E1.5 and E1.6.) | X | X | |
| E4.2 Adopt an energy efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their energy use and demonstrate their pathway to efficiency. | X | | |
| E4.3 Convert existing County-owned heat-trapping surfaces to cool or green surfaces. | | X | |
| Strategy 7: Conserve Water | | | |
| E5 Increase Use of Recycled Water and Gray Water Systems: Increasing the use of alternative water sources (e.g., recycled water, gray water, indirect potable reuse) reduces the demand for water sources with higher energy and carbon intensities (e.g., imported water, groundwater). | X | X | X |
| E5.1 Require dual waste piping to be installed in new residential developments to allow for future graywater irrigation systems. | | | X |
| E5.2 Require the use of recycled water and gray water for agricultural purposes where recycled water is available. Identify soil and water conservation best practices for agricultural uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. | X | X | X |
| E5.3 Require the use of recycled water and gray water for industrial purposes where recycled water is available. Identify water conservation best practices for industrial uses. Work with LACSD and other water suppliers to assess the feasibility of new recycled water facilities for unserved communities. | X | X | X |
| E5.4 Require the use of recycled water and gray water for landscaping irrigation purposes where recycled water is available. | X | X | X |
| E5.5 Partner with the County water districts and retail suppliers to explore the potential for widespread utilization of direct potable reuse through pilot projects. | X | | |

**TABLE 2-11 (CONTINUED)
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING**

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|---|-----------------------------------|------------------------------------|----------------------------------|
| Strategy 7: Conserve Water (cont.) | | | |
| E6 Reduce Indoor and Outdoor Water Consumption: Reducing indoor and outdoor water consumption is essential as the state experiences longer and more severe droughts. Not only will water conservation improve regional resiliency, but it will also reduce GHG emissions through the reduction of energy consumption associated with the processing, treatment, and conveyance of water and wastewater. | X | | |
| E6.1 Develop a water conservation ordinance for new development (public and private). Utilize Leadership in Energy and Environmental Design (LEED) or Sustainable SITES Initiative (SITES) standards. A future ordinance may include a net-zero water requirement for new greenfield development. | X | | |
| E6.2 Adopt a water efficiency ordinance for existing buildings, requiring all buildings over 20,000 square feet to benchmark and report their water use and demonstrate their pathway to efficiency. | X | X | |
| E6.3 Incentivize residents to replace water-intensive landscaping, such as decorative turf, with water-conserving landscaping and/or California native plants through a new ordinance along with education and incentive programs. | X | | |
| E6.4 Implement strategies to improve water efficiency and increase water conservation at County facilities | X | | |
| E6.5 Integrate water related programs into the County’s affordable housing preservation program to protect the housing affordability of units and to keep the units fit for their purpose in a changing climate. | X | X | |
| Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream | | | |
| W1 (Core) Institutionalize Sustainable Waste Systems and Practices: Undertake actions that result in sustainable waste systems. Responsible and sustainable waste practices are learned behaviors, which the County can facilitate through outreach, education, and mandates. Increase diversion of recyclable materials and organics from landfills through ordinances, service improvements, education and outreach, and promotion of product stewardship and markets for material reuse. An increased diversion rate indirectly reduces the demand for virgin materials, which reduces the life-cycle carbon intensity of any resulting products. Through action taken at the County level, waste-conscious habits and thoughtful consumption can become the default. | X | | |
| W1.1 Identify best practice waste pricing programs to reduce waste generation to the maximum extent feasible, including but not limited to differential prices for waste based on amount generated in the residential sector and reforms to tipping rate structures. | X | | |
| W1.2 Implement, enforce, and expand to the maximum extent feasible the single-use plastics ordinance and polystyrene ban. | | | |
| W1.3 Increase the diversion requirements in the County’s Construction and Demolition Debris Ordinance and allow the use of recycled construction materials in new projects. | X | | |
| W2 Increase Organic Waste Diversion: Provide services for diverting yard waste, food scraps, and compostable paper from landfills to beneficial uses, including compost, food rescue, and energy production. | X | X | X |
| W2.1 Require organic waste generators to properly manage organic waste as per the Organic Waste Disposal Reduction Ordinance. Improve upon and expand existing practices and programs to minimize organic waste disposal in landfills. | | | |
| W2.2 Develop organic waste collection, management, and diversion programs for constituents in unincorporated communities and all County operations; establish a contamination monitoring plan for organic waste programs. | | X | |
| W2.3 Collaborate with the LA County Sanitation Districts and other waste and wastewater service providers to utilize unused anaerobic digestion capacity of existing wastewater treatment plants and solid waste facilities to generate vehicle fuel (electricity and/or biomethane) from newly diverted organic waste. Develop a strategy for using bioenergy created from recycled organic waste. | | X | X |

TABLE 2-11 (CONTINUED)
ANTICIPATED 2045 CLIMATE ACTION PLAN IMPLEMENTATION TIMING

| | Short-Term (2024–2030) | Medium-Term (2031–2035) | Long-Term (2036–2045) |
|---|---------------------------|----------------------------|--------------------------|
| Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream (cont.) | | | |
| W2.4 Provide regional leadership for organic waste processing capacity planning and infrastructure development. | | X | X |
| W2.5 Enhance and expand the County's existing Food DROP food donation and redistribution program to divert edible food from landfills and make it available to food insecure communities. | X | X | |
| Strategy 9: Conserve and Connect Wildlands and Working Lands | | | |
| A1 Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands: Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County. | X | X | X |
| A1.1 Develop an open space conservation and land acquisition strategy that prioritizes wildlife connectivity to conserve native habitats for carbon sequestration. | X | X | X |
| A1.2 Employ ecosystem-appropriate vegetation management of wildlands based on the best available science to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Leverage tools such as the Unified Land Management Plan and the Countywide Community Wildfire Prevention Plan. | X | X | X |
| Strategy 10: Sequester Carbon and Implement Sustainable Agriculture | | | |
| A2 Support Regenerative Agriculture: Promote agricultural practices that sequester carbon and restore soil quality, biodiversity, ecosystems health, and water quality. | X | X | |
| A2.1 Create fallow and field resting incentives to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. Create a carbon farming plan with the primary objectives of carbon removal and regenerative agriculture. | | X | |
| A2.2 Provide compost and/or organic or nonsynthetic fertilizer to farmers free of charge or at a discounted rate. | X | | |
| A3 Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces: Create an Urban Forest Management Plan to plant trees, increase the unincorporated Los Angeles County's tree canopy cover, add green space, and convert impervious surfaces. Focus tree planting on frontline communities with insufficient tree cover and green spaces. | X | X | X |
| A3.1 Create and implement an equitable Urban Forest Management Plan that prioritizes: (1) tree- and parks-poor communities; (2) climate- and watershed-appropriate and drought/pest-resistant vegetation; (3) appropriate watering, maintenance, and disposal practices; (4) provision of shade; and (5) biodiversity. | X | X | X |
| A3.2 Expand tree planting on County property and in the public right-of-way within unincorporated Los Angeles County. Encourage tree planting on private property. | X | X | X |
| A3.3 Develop an ordinance requiring that all removed trees must be replaced by an equal or greater number of new trees | X | | |

NOTES:

2045 CAP = 2045 Los Angeles County Climate Action Plan; BIPOC = Black, Indigenous, and People of Color; CALGreen Code = California Green Building Standards Code; Unincorporated Los Angeles County = unincorporated areas of Los Angeles County; Countywide = Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; CPA = Clean Power Alliance; EV = electric vehicle; EVCS = electric vehicle charging station; GHG = greenhouse gas; GWP = global warming potential; HQTA = High Quality Transit Area; County = County of Los Angeles government; LACSD = Los Angeles County Sanitation Districts; LEED = Leadership in Energy and Environmental Design; Metro = Los Angeles County Metropolitan Transportation Authority; PV = photovoltaic; SCE = Southern California Edison; TDM = Transportation Demand Management; VMT = vehicle miles traveled; ZEV = zero-emissions vehicle; ZNE = zero net energy. Actions that are specifically designed to reduce emissions for County municipal operations are identified with an "M" superscript.

2.7.1 2045 Climate Action Plan Consistency Checklist

As discussed in Section 2.3.3, *Qualified Greenhouse Gas Emissions Reduction Plan*, projects in the County can demonstrate consistency with the Draft 2045 CAP (as a qualified GHG emissions reduction plan) if they are consistent with the 2045 CAP's future growth projections and with its GHG emissions reduction measures. As discussed above, any project that is consistent with a qualified GHG emissions reduction plan, and that conforms to specific performance standards applicable to new development identified in the plan, would not require additional GHG emissions analysis or mitigation under CEQA Guidelines Section 15183.5(b)(2).

A project's incremental contribution to a cumulative impact may not be cumulatively considerable if the project would comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area in which the project is proposed (CEQA Guidelines Sections 15064[h][3] and 15064.4[b]). Once final, the Draft 2045 CAP would represent the County's approved emissions reduction program for all new development within the unincorporated areas.

The County has developed the 2045 CAP Checklist to assist with determining the consistency of projects with the Draft 2045 CAP. This is included as Appendix F to the Draft 2045 CAP. The 2045 CAP Checklist provides individual projects the opportunity to demonstrate that they are reducing GHG emissions; it also ensures that future projects would achieve their proportion of emissions reductions consistent with the assumptions of the Draft 2045 CAP. A project would demonstrate consistency with the Draft 2045 CAP by incorporating the GHG emissions reduction measures included in the Draft 2045 CAP that apply to new projects. The 2045 CAP Checklist for projects facilitated by the Draft 2045 CAP provides a mechanism for projects to specifically identify "those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project" per CEQA Guidelines Section 15183.5(b)(2).

Because it is a qualified climate action plan pursuant to CEQA Guidelines Section 15183.5, the Draft 2045 CAP would be used as the basis for future assessments of consistency with this plan in lieu of a project-specific GHG CEQA analysis for future projects, by using the 2045 CAP Checklist. Future discretionary projects—both projects proposed by private developers and public projects—would be reviewed to determine whether they meet certain screening criteria included in the 2045 CAP Checklist:

- If a project would be consistent with the General Plan and Housing Element *and* could demonstrate consistency with the Draft 2045 CAP by completing the 2045 CAP Checklist, then the project would be considered consistent with the Draft 2045 CAP and would be eligible for CEQA streamlining of its project-level GHG analysis.
- Also, if a project would achieve net-zero GHG emissions compared to existing on-site development at the project site, provided that existing on-site development is similar to the proposed project and that GHG emissions from existing on-site development are not substantially larger than emissions from the proposed project, the project would be considered consistent with the 2045 CAP and would be eligible for CEQA streamlining of its project-level GHG analysis.

- If the project would be inconsistent with the Housing Element and require a General Plan amendment, then it would not be able to use this the 2045 CAP for CEQA streamlining. Such a project would have to undergo its own project-level analysis of GHG impacts pursuant to CEQA.
- If a project could not demonstrate consistency with the Draft 2045 CAP by completing the 2045 CAP Checklist or by implementing equivalent replacement strategies or by implementing a qualified off-site GHG emission reduction project, as provided for in the 2045 CAP Checklist, then a project-specific GHG analysis would be required. In this case, implementation of applicable CAP Checklist items that are feasible would still be required.

Consistency with General Plan Land Use Assumptions. Projects consistent with the demographic forecasts and land use assumptions used in the Draft 2045 CAP can use the 2045 CAP Checklist to demonstrate consistency with the 2045 CAP. If consistent, these projects could rely on the programmatic environmental review contained in the certified EIR for the 2045 CAP.

If a project would not be consistent with the General Plan's land use designations, then it would not be eligible for streamlining by using the 2045 CAP Checklist. Projects inconsistent with the General Plan's land use designations would prepare a project-specific analysis of GHG emissions. Such an analysis would quantify existing and projected GHG emissions for the project and incorporate applicable items from the 2045 CAP Checklist to the maximum extent feasible, along with any identified project-specific mitigation measures.

Offsite GHG Emission Reduction Projects. As part of the 2045 CAP Checklist, the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required 2045 CAP Checklist items, would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed in this Draft EIR. Further, project applicants' CEQA documents would be required to disclose the impacts of any offsite GHG reduction projects that are proposed to be funded or implemented.

2.8 2045 Climate Action Plan Monitoring and Reporting

To ensure that the Draft 2045 CAP remains qualified for use with later activities under CEQA Guidelines Section 15183.5(b)(2) and that the 2045 CAP Checklist remains valid, the Project includes the following monitoring and reporting responsibilities, which would be administered by the County:

- The County will conduct an inventory of the unincorporated County's GHG emissions at minimum every five years and would include a timeline with milestones toward meeting targets.

- The County will collect data to report through an annual report identifying the progress of measures and actions. In the first two years of implementation, the County will identify where further efforts and additional resources may be needed.
- The County will develop a dashboard as part of the reporting on the implementation of the 2045 CAP that will be updated on an annual basis, based on data availability, and will provide information on the ongoing efforts of the CAP actions through data and spatial displays.
- The County will annually evaluate County policies, plans, and codes as needed to ensure that the 2045 CAP reduction targets are met.
- The County staff will evaluate the 2045 CAP and the 2045 CAP Checklist every five years (at minimum) to determine whether updates are necessary.

2.9 Required Approvals: Environmental Review and Consultation Requirements

CEQA Guidelines Section 15124(d) requires that an EIR to contain a statement briefly describing the intended uses of the EIR. The County has approval authority over the Draft 2045 CAP. Approval from other public agencies is not required. The County would certify the Final EIR, approve the General Plan amendment, and adopt the Draft 2045 CAP. No other agency approvals would be required, as these are policy matters for the County.

Some projects facilitated by Draft 2045 CAP measures and actions would be implemented by the County while others would be implemented by other agencies, such as transit agencies for expanded transit service; however, such projects would require project-level CEQA evaluation, at which time implementing agencies would be involved as a lead or responsible agencies.

CEQA Guidelines Section 15124(d) requires that an EIR integrate CEQA review with related federal, state, or local environmental review and consultation requirements. Aside from SB 18 tribal consultation (see Chapter 1, *Introduction*), at the plan level no other directly related environmental review and consultation requirements are applicable to the Draft 2045 CAP. Implementation of projects facilitated by Draft 2045 CAP measures and actions would require compliance with applicable project-specific federal, state, or local environmental review and consultation requirements.

CHAPTER 3

Environmental Setting, Impacts, and Mitigation Measures

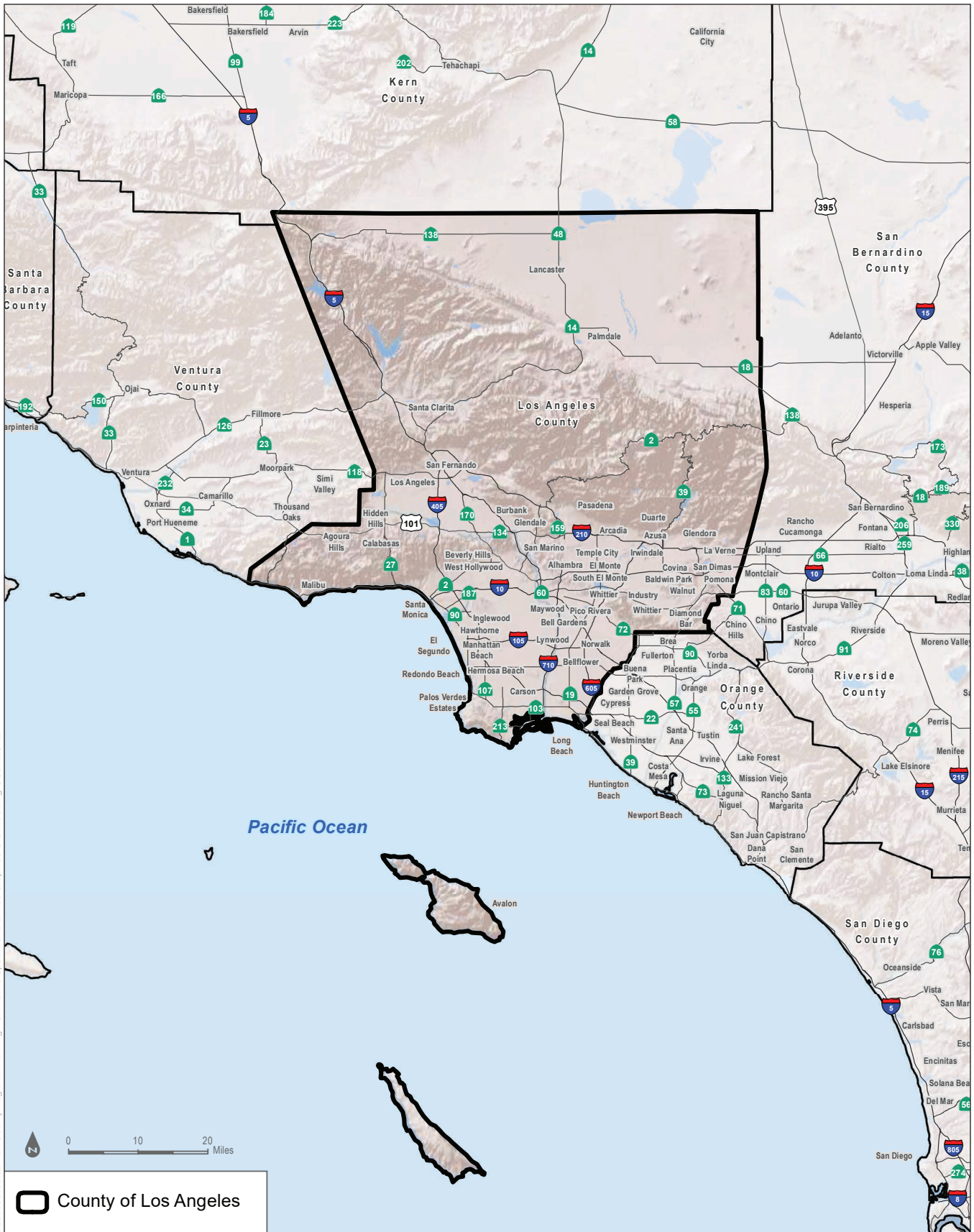
3.1 Introduction to Environmental Analysis

This chapter describes the environmental setting from a regional and local perspective and the regulatory setting for the analysis of impacts. See Section 3.1.1, *Regional Environmental Setting*, and each of the resource sections that follow for setting information. This chapter also analyzes the environmental impacts of the Draft 2045 CAP and projects facilitated by the Draft 2045 CAP as they relate to the following areas of environmental consideration: aesthetics, agriculture and forestry, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas (GHG) emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, transportation, tribal cultural resources, utilities and service systems, and wildfire.

3.1.1 Regional Environmental Setting

CEQA Guidelines Section 15125 requires an EIR to include “a description of the physical environmental conditions in the vicinity of the project.... from both a local and regional perspective.” The regional environmental setting is described here; the local environmental setting is described on a resource-by-resource basis elsewhere in this Chapter 3.

With approximately 4,083 square miles, including a 75-mile stretch of the Pacific Coast, Los Angeles County is geographically one of the largest counties in the United States. The County is bordered to the south by Orange County, to the east by San Bernardino County, to the north by Kern County, and to the west by Ventura County, and includes two offshore islands: Santa Catalina Island and San Clemente Island. Los Angeles County includes 88 cities and approximately 2,656 square miles of unincorporated area. The unincorporated areas are home to one million people. See **Figure 3.1-1**, *Regional Vicinity Map*.



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SOURCE: Los Angeles County, 2021

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.1-1
Regional Vicinity Map



3.1.1.1 Aesthetics

Los Angeles County is a visually diverse area where the visual setting includes built environments, natural environments, and places that interface between the two. Built environments include commercial, office, residential, industrial, institutional, and public uses. Natural environments include coastlines, beaches, foothills, mountains and ridgelines, forests, and desert environments. Scenic hillsides include the San Gabriel Mountains, Verdugo Hills, Santa Monica Mountains, Santa Susana Mountains, Simi Hills, and Puente Hills. Scenic viewsheds vary by location and community and can include ridgelines, unique rock outcroppings, waterfalls, ocean views, or various other unusual or scenic landforms. Numerous ridgelines provide dramatic views for the unincorporated areas.

The varied topography of the County allows for an assortment of long-range views from the Los Angeles Basin to the foothills and mountains, as well as long-range views from the foothills and mountains to the Los Angeles Basin and the coast. There are three adopted state scenic highways within the County: Angeles Crest Highway (State Route [SR] 2), from 2.7 miles north of Interstate 210 to the San Bernardino County line; Mulholland Highway (two sections), from SR 1 to Kanan Dume Road, and from west of Cornell Road to east of Las Virgenes Road; and Malibu Canyon–Las Virgenes Highway, from SR 1 to Lost Hills Road. Overall, the visual character of Los Angeles County is quite varied (Los Angeles County 2021). See Section 3.2.1, *Setting*, in Section 3.2 for additional details.

3.1.1.2 Agriculture and Forestry

Farmland Mapping and Monitoring Program maps identify farmland of the following types: Agricultural Land, Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. Mapped Important Farmland exists in the Antelope Valley, Santa Clarita Valley, and Santa Monica Mountains planning areas. The County also has land use jurisdiction over approximately 40,000 acres of forest land. See Section 3.3.1, *Setting*, in Section 3.3 for additional details.

3.1.1.3 Air Quality

From an air quality perspective, Los Angeles County can be reflected as the two distinct geographical areas of the Los Angeles Basin and Antelope Valley. The Los Angeles Basin is part of the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Antelope Valley is part of the Mojave Desert Air Basin, which encompasses the northeastern portion of Los Angeles County, the eastern portion of Kern County, and the majority of San Bernardino County. Most of Los Angeles County is in the SCAB, which is managed by the South Coast Air Quality Management District (SCAQMD). The SCAQMD's jurisdiction is approximately 10,743 square miles and includes Los Angeles County except for the Antelope Valley, which is under the jurisdiction of the Antelope Valley Air Quality Management District (AVAQMD). The SCAQMD and AVAQMD both implement a wide range of programs and regulations that address point- and area-source emissions and mobile-source emissions.

The entire SCAB, including the portion in unincorporated Los Angeles County, is designated as a nonattainment area for both the federal and state standards for ozone, particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (PM_{2.5}), and particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM₁₀) (CARB 2022; USEPA 2022a). The Los Angeles County portion of the SCAB is designated as a nonattainment area for both federal and state ozone standards and is designated as a nonattainment area for state PM₁₀ standards (CARB 2022; USEPA 2022a).

The air people breathe has a direct correlation with health, and Los Angeles County has some of the most polluted air in the country (Los Angeles County Department of Public Health 2022). Children, the elderly, and individuals with respiratory or cardiovascular health issues are most negatively affected by poor air quality (AVAQMD 2022). Exposure to six air pollutants in particular can cause health problems: particulate matter, ground-level ozone, lead, carbon monoxide, nitrogen oxides and sulfur oxides. Exposure can cause respiratory symptoms (e.g., coughing and breathing difficulties, chronic bronchitis, and asthma), cardiovascular diseases, and can trigger a host of harmful effects (e.g., behavioral problems, learning deficits, headaches, fatigue) (Los Angeles County Department of Public Health 2022).

See Section 3.4.1, *Setting*, in Section 3.4 for additional details.

3.1.1.4 Biological Resources

Los Angeles County comprises a diverse variety of ecosystems that include coastal areas, islands, plains, mountains, and deserts. Elevations range from sea level to over 10,000 feet above mean sea level. Climates range from mild near the coast to severe in the high mountains and desert regions. The soils and underlying geology vary according to prehistoric volcanic activity, marine sedimentation, and river deposition. This wide variation in physical environments has produced the diverse collection of habitats, vegetation, and wildlife found in the County today (Los Angeles County 2021).

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, and/or rare. This is due to the species' declining or limited population sizes, which usually result from habitat loss. Watch lists of such resources are maintained by the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife, and special groups, such as the California Native Plant Society. Los Angeles County contains multiple habitats as well as plant and animal species, which have been accorded special recognition. For example, the Biodiversity Atlas of Los Angeles, prepared by the University of California Los Angeles, showcases the striking biodiversity present in the County, which hosts more than 4,000 distinct species of plants and animals, including 52 endangered species—more than any county outside of Hawaii (UCLA 2020). See Section 3.5.1, *Setting*, in Section 3.5 for additional details.

3.1.1.5 Cultural and Tribal Cultural Resources

Evidence of continuous human occupation in Southern California spans the last 10,000 years (Los Angeles County 2021). Cultural resources include prehistoric, historical, archaeological, and paleontological resources. Examples of such resources in Los Angeles County include historic buildings, structures, artifacts, sites, and districts of historic, architectural, archaeological, and paleontological significance. These resources may also be locations of important events in history or unique structures or groups of structures possessing distinctive architectural features that depict a historic period. Historical, cultural, and paleontological resources are considered nonrenewable and irreplaceable. Tribal cultural resources that exist in Los Angeles County are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that is listed, or determined to be eligible for listing, on the national, state, or local register of historical resources. The Native American Heritage Commission has identified 24 tribes with traditional lands or cultural places within the unincorporated areas. For additional details, see Section 1.4.1.1, *Senate Bill 18 Consultation Process*, and Section 1.4.1.2, *Tribal Consultation Pursuant to Assembly Bill 52*, in Chapter 1 and the setting sections for cultural resources (Section 3.6.1 in Section 3.6), paleontological resources (Section 3.8.1 in Section 3.8) and tribal cultural resources (Section 3.16.1 in Section 3.16).

3.1.1.6 Energy

Los Angeles County's population is served by a variety of energy sources, including electricity, natural gas, and petroleum. Southern California Edison and the Clean Power Alliance (CPA) provide electricity to the unincorporated areas. The Southern California Gas Company provides natural gas service to the County. Petroleum usage in the County includes products such as gasoline, distillate fuel, liquefied petroleum gases, and jet fuel (Los Angeles County 2021). See Section 3.7.1, *Setting*, in Section 3.7 for additional details.

3.1.1.7 Geology and Soils

Since 1800, more than 90 significant earthquakes have shaken the Los Angeles region, including the moment magnitude 6.7 1994 Northridge earthquake. Within the County, there are more than 50 active and potentially active fault segments, an undetermined number of buried faults, and at least four blind thrust faults capable of producing damaging earthquakes. The primary issues in the unincorporated areas associated with geology and soils include: seismic hazards and the associated effects and damage caused by earthquakes; and geotechnical, or hillside, hazards. The vast majority of hillside hazards include mud and debris flows, active deep-seated landslides, hillside erosion, and human-induced slope instability (Los Angeles County 2021). See Section 3.8.1, *Setting*, in Section 3.8 for additional details.

3.1.1.8 Greenhouse Gas Emissions

A GHG is any gas that absorbs infrared radiation in the atmosphere. As defined in Health and Safety Code Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also

California Code of Regulations Title 14, Section 15364.5). Some GHGs, such as CO₂, methane, and nitrous oxide, are emitted into the atmosphere through natural processes and human activities. Of these, CO₂ and methane are emitted in the greatest quantities from human activities. Manufactured GHGs have a much greater heat-absorption potential than CO₂ and include fluorinated gases, such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which are associated with certain industrial products and processes (Los Angeles County 2021).

The primary GHG sources in California attributable to human activities include transportation, stationary energy (used by buildings and other facilities), waste, and industrial, agricultural, and other land use. In 2020, GHG emissions nationwide totaled 5,215.6 million metric tons of CO₂ equivalents after accounting for sequestration from the land sector; the 2020 level is 22 percent below 2005 levels (USEPA 2022b). See Section 3.9.1, *Setting*, in Section 3.9 for additional details.

3.1.1.9 Hazards and Hazardous Materials

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, toxic, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, industrial solvents, paint, pesticides) and in the manufacturing of products (e.g., electronics, newspapers, plastic products). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials have a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, industrial incidents, and unintentional releases (Los Angeles County 2021).

Regarding emergency response planning, the County's Office of Emergency Management maintains the *Los Angeles County Operational Area Emergency Response Plan* (Los Angeles County 2012) and the *County of Los Angeles All-Hazard Mitigation Plan* (Los Angeles County Chief Executive Office 2019). The County Office of Emergency Management leads and coordinates disaster plans and disaster preparedness exercises for all cities and 288 special districts in the County. Additionally, hazardous material response in the Project area would be handled by the hazardous materials response firefighters with the Los Angeles County Fire Department. See Section 3.10.1, *Setting*, in Section 3.10 for additional details.

3.1.1.10 Hydrology and Water Quality

Los Angeles County spans parts of three hydrologic regions: the South Coast Region, the South Lahontan Region, and the Tulare Lake Hydrologic Region. Within the County, there are six major watershed areas that include more than 900 miles of major river systems, 3,600 miles of smaller streams, and 25 square miles of pond, lake, and reservoir surface (Los Angeles County 2021; Los Angeles County Department of Public Works 2009).

Also located within Los Angeles County are regional groundwater recharge areas called *spreading grounds*, which capture close to 80 percent of the runoff that flows from the mountains (Los Angeles County 2021; Los Angeles County Department of Public Works 2022a, 2022b). Los Angeles County groundwater basins are grouped under five major geographic areas: the

Antelope Valley, Coastal Plain, San Fernando Valley, San Gabriel Valley, and Santa Clarita Valley (Los Angeles County Department of Public Works 2022c). Except during times of drought, groundwater extraction accounts for nearly 33 percent of the water usage in the unincorporated areas (Los Angeles County 2021). In rural areas, hundreds of households depend on private wells (Los Angeles County 2021).

Regarding surface water, the Los Angeles Regional Water Quality Control Board has adopted two water quality control plans (also called *basin plans*) that govern different areas of the County: one for the Santa Clara Basin, the other for the Los Angeles Basin. The basin plans designate beneficial uses for inland and coastal surface waters, establish water quality objectives and implementation programs and policies to protect those uses. The County's Stormwater Ordinance regulates the discharge, deposit, or disposal of stormwater and/or runoff to storm drains in accordance with the National Pollutant Discharge Elimination System program established pursuant to the federal Clean Water Act. The County Flood Control District oversees activities on more than 2,700 square miles within six major watersheds, including drainage infrastructure within 86 incorporated cities as well as the unincorporated County areas (Los Angeles County Flood Control District 2022). See Section 3.11.1, *Setting*, in Section 3.11 for additional details.

3.1.1.11 Land Use and Planning

The County oversees land use and planning within all of the unincorporated areas, which comprise an approximately 1,696,000-acre (approximately 2,650-square-mile) area that is approximately 65 percent of the total land area of the County. See Figure ES-1, *Map of Unincorporated Los Angeles County*.

The unincorporated areas in the northern portion of Los Angeles County include the Angeles National Forest and parts of the Los Padres National Forest (together encompassing nearly 650,000 acres within the unincorporated areas—more than 25 percent of the County's total land area), and the western tip of the Mojave Desert known as the Antelope Valley. In the western portion of the County, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in the southern and eastern portions consist of non-contiguous land areas including unincorporated areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

There are five unincorporated areas of Los Angeles County in the state-designated coastal zone: Santa Catalina Island, Marina del Rey, a portion of the Santa Monica Mountains, Ballona Wetlands, and San Clemente Island. The General Plan identifies 11 Planning Areas, where uses reflect the distinctive and diverse character of the different areas as well as their environmental and other constraints (County Planning 2015). See Section 3.12.1, *Setting*, in Section 3.12 for additional details.

Other governmental entities besides the County have oversight over land use and planning in the unincorporated areas. For example, although the County retains responsibility for land use regulation for the nearly 40,000 acres of private in-holdings within the national forest lands, the remaining national forest lands in unincorporated areas are under the stewardship of the

U.S. Forest Service. Additionally, the Santa Monica Mountains National Recreation Area is a part of the National Park System and is managed by the U.S. Department of the Interior’s National Park Service. The U.S. Department of Defense also oversees areas (military installations) within the County. See Section 3.12.1, *Setting*, in Section 3.12 for additional details.

3.1.1.12 Noise

The unincorporated areas of the County contain urbanized and rural environments, both of which experience noise disturbance. The major sources of noise in the unincorporated areas come from transportation systems, such as commercial and private airports, rail and bus networks, and the regional freeway and highway system. Urban residential areas are also affected by commercial and industrial spillover noise. Other major sources of noise historically have been associated with industrial uses, such as manufacturing plants. Non-transportation noise sources include industrial processing; mechanical equipment; and pump stations and heating, ventilation, and air conditioning equipment. Some non-transportation sources are not stationary, but typically are assessed in environmental reviews as “point” or “area” sources due to the limited area in which they operate; examples include truck deliveries, agricultural field machinery, and mining equipment (County Planning 2015).

Noise-sensitive land uses include areas where an excessive amount of noise would interfere with normal activities. Primary noise-sensitive land uses in unincorporated include residential uses, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and passive recreational parks. Sleep disturbance tend to be a critical concern for noise-sensitive land uses (County Planning 2015). See Section 3.13.1, *Setting*, in Section 3.13 for additional details.

3.1.1.13 Population and Housing

This regional setting information for population and housing is based on information presented in the County’s 2021-2029 Housing Element, which presented data as of 2018 (Los Angeles County 2021). In 2018, the population in unincorporated Los Angeles County was estimated to be 1,057,162 persons, representing approximately 10.3 percent of the County’s total population. Regarding housing stock, there were 294,730 housing units in the unincorporated areas at that time, representing approximately 8.8 percent of the Countywide total. The majority of homes in unincorporated Los Angeles County are single-family detached units, although there also are mobile homes, apartments of varying scales, and single-family attached units (e.g., townhomes). The high percentage of single-family detached and attached housing units reflects the current suburban nature of several unincorporated areas (Los Angeles County 2021). See Section 3.14.1, *Setting*, in Section 3.14 for additional details.

3.1.1.14 Transportation

Los Angeles County has one of the largest transportation systems in the world, and the County’s growing population, coupled with the diversity of activities that take place Countywide, creates burdens on the transportation system and its infrastructure (County Planning 2015). Among the six counties that are part of the Southern California Association of Governments (SCAG)—

Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties—Los Angeles County has the highest daily vehicle miles traveled (VMT) at over 231,455,000 miles, which represents half of all the average daily VMT generated in the six-county SCAG region. In addition, Los Angeles County drivers experience the highest rate of vehicle hour delays out of the six-county SCAG region counties, with 65 percent of travel delay hours in the region occurring in Los Angeles County (SCAG 2020). Unincorporated areas are served by the interstate highway system, state highways, and a network of County and local roads; as well as by bicycle facilities as described in the County’s 2012 Bicycle Master Plan (Los Angeles County Department of Public Works 2012); and public bus and rail transit throughout the five sectors within Metro’s service area (Metro 2022). See Section 3.15.1, *Setting*, in Section 3.15 for additional details.

3.1.1.15 Utilities and Service Systems

Multiple entities provide wastewater treatment to the unincorporated areas: Los Angeles County Sanitation Districts (LACSD), the City of Los Angeles Bureau of Sanitation (LABS), and Las Virgenes Municipal Water District. The Consolidated Sewer Maintenance District of Los Angeles County, which is administered by the Department of Public Works, operates and maintains more than 4,600 miles of sanitary sewers serving the unincorporated areas (except for Marina del Rey); the LACSD owns, operates, and maintains about 1,400 miles of sewers; and LABS operates and maintains more than 6,700 miles of sewers. See Section 3.17.1, *Setting*, in Section 3.17 for additional details; see also Section 4.19, *Utilities and Service Systems*, in the County’s 2021-2029 Housing Element (Los Angeles County 2021).

3.1.1.16 Wildfire

A *wildfire*, also called *wildland fire* or *rural fire*, is an uncontrolled fire that occurs in an area with combustible vegetation. Much of Los Angeles County is subject to some degree of fire hazard, but specific features make some areas more hazardous than others. Some of those features are found in the unincorporated areas.

Overall, the County faces wildland fire threats as a result of its topography, rainfall patterns, and fire-adapted vegetation. At-risk areas mapped by the California Department of Forestry and Fire Protection (CAL FIRE) as Fire Hazard Severity Zones are further classified as Very High, High, and Moderate in State Responsibility Areas and as Very High in Local and Federal responsibility areas (County Planning 2022).

Some of the largest and most destructive wildfires in the County have been recent: In September 2020, the Bobcat Fire burned 115,796 acres in Angeles National Forest (from north of Monrovia to Juniper Hills) and destroyed 170 structures, including 87 homes (Los Angeles Almanac 2022). Two 2019 fires in Angeles National Forest, the Ravenna Fire in Big Tujunga Canyon and the San Gabriel Fire in San Gabriel Canyon, combined to burn an additional 135,000 acres (Los Angeles Almanac 2022).

CAL FIRE describes the 2022 fire season as follows (CAL FIRE 2022):

California continues to experience longer wildfire seasons as a direct result of Climate Change. Extended dryness originating from January is expected to continue into the Spring with little precipitation leaving most of the state in moderate to extreme drought conditions prior to Summer. These continued dry conditions with above normal temperatures through Spring will leave fuel moisture levels lower than normal increasing the potential for wildland fire activity.

See Section 3.18.1, *Setting*, and Figure 3.18-1, *Fire Hazard Severity Zones and Responsibility Areas*, in Section 3.18 for additional details.

3.1.2 Baseline

The analysis of each environmental resource issue begins with a description of the actual physical environmental conditions in the area where a project and its alternatives would be implemented. These conditions also are referred to as the “baseline” relative to which project-caused changes are analyzed to determine whether the change is significant for purposes of CEQA (CEQA Guidelines Sections 15125 and 15126.2). For this EIR, unless as otherwise noted, baseline conditions are those as they existed on or about January 3, 2022, shortly after the Notice of Preparation was published.

The impacts of the Project (and alternatives analyzed in Chapter 4, *Alternatives*) are defined as changes to the environmental setting that are attributable to Project components or activities. Consistent with CEQA, an EIR need not analyze the impacts of the existing environment on a project (including its users or occupants) unless the project exacerbates those conditions. The regional setting is summarized in Section 3.1.1, *Regional Environmental Setting*. The environmental setting is further described for purposes of establishing baseline environmental conditions on a resource-by-resource basis throughout this Chapter 3.

3.1.3 Approach to Impact Analysis

3.1.3.1 Significance Criteria

CEQA lead agencies rely on impact significance criteria as benchmarks to determine whether changes to the existing environment caused by a project or an alternative would cause a significant adverse effect. A *significant effect on the environment* is “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382). The significance criteria for this EIR are generally based on the series of questions provided in the CEQA Guidelines Appendix G Environmental Checklist.

3.1.3.2 Significance Thresholds

To determine whether the impact of a project-caused change compared to any of the significance criteria could be significant, CEQA lead agencies evaluate the degree of that change relative to an

established threshold. CEQA Guidelines Section 15064.7 defines *threshold of significance* as “an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.” Such thresholds may be sourced from a variety of places including general plan policies, ordinances, other agencies’ thresholds, and industry standards. The thresholds used in this EIR are identified together with the relevant criteria on a resource-by-resource basis throughout this Chapter 3.

3.1.3.3 Significance Conclusions

Impact significance conclusions in this EIR are reached based on information in the record, including scientific and factual data as well as professional knowledge and judgment. Consistent with CEQA and the CEQA Guidelines, each significance conclusion is characterized as one of the following:

1. **No Impact:** This signifies that the Project or an alternative would not cause any change in the environment relative to the applicable significance threshold; under these circumstances, no mitigation measures are required. Resources for which the Initial Study prepared for the Project (**Appendix A2**) concluded that no impact would result are not analyzed in detail in this EIR.
2. **Less-than-Significant Impact:** This signifies that the Project or an alternative could cause an adverse change in the environment, but not one that would be substantial, relative to the applicable significance threshold. Under these circumstances, no mitigation measures are required. Resources for which the Initial Study prepared for the Project (**Appendix A2**) concluded that a less-than-significant impact would result are not analyzed in detail in this EIR.
3. **Less than Significant with Mitigation Incorporated:** This signifies that the Project or an alternative could cause an adverse change in the environment that would be substantial relative to the applicable significance threshold, but that the implementation of one or more feasible mitigation measures would reduce the significance of the impact below the threshold.
4. **Significant and Unavoidable:** This signifies that the Project or an alternative could cause a substantial adverse change in the environment relative to the applicable significance threshold; however, either no feasible mitigation measures are available, or, even with implementation of feasible mitigation measures, the significance of the impact would remain above the threshold.
5. **Cumulatively Considerable:** This signifies that the Project-specific or alternative-specific contribution to a significant cumulative impact would be considerable when viewed in connection with the incremental impacts of past projects, the impacts of other current projects, and the impacts of reasonably foreseeable probable future projects (as defined in CEQA Guidelines Section 15130).

3.1.3.4 Resources Eliminated from Detailed Consideration in This Program EIR

Table 3.1-1, *Resources and Significance Criteria Eliminated from Detailed Consideration*, identifies the resources and their significance criteria that were scoped out of the EIR based on conclusions in the Initial Study (Appendix A2) of “no impact” or “less-than-significant impact.” Certain other resources and significance criteria for which the Initial Study concluded that “no impact” or a “less-than-significant impact” would result nonetheless have been brought forward for more detailed environmental significance impact analysis in this Chapter 3 based on scoping comments and input received.

3.1.3.5 Mitigation Measures

Mitigation measures are feasible actions intended to avoid or substantially lessen significant impacts identified in the impact analysis. To avoid or reduce significant impacts, feasible mitigation measures have been recommended to address them. The effectiveness of recommended mitigation measures has been evaluated by analyzing the impact remaining after the implementation of the measure. In some cases, the implementation of more than one mitigation measure may be needed to reduce the significance of an impact below the threshold. Impacts that remain significant after feasible mitigation measures are applied are identified as significant and unavoidable impacts.

**TABLE 3.1-1
 RESOURCES AND SIGNIFICANCE CRITERIA ELIMINATED FROM DETAILED CONSIDERATION**

| Biological Resources | |
|---|------------------------------|
| f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, Ch. 102), Specific Plans (L.A. County Code, Title 22, Ch. 22.46), Community Standards Districts (L.A. County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (L.A. County General Plan, Figure 9.3)? | Less-than-Significant Impact |
| Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved state, regional, or local habitat conservation plan? | No Impact |
| Hydrology and Water Quality | |
| e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84)? | No Impact |
| Land Use and Planning | |
| a) Physically divide an established community? | No Impact |
| c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas? | Less-than-Significant Impact |
| Mineral Resources | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | Less-than-Significant Impact |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | Less-than-Significant Impact |
| Noise | |
| c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | Less-than-Significant Impact |

**TABLE 3.1-1 (CONTINUED)
 RESOURCES AND SIGNIFICANCE CRITERIA ELIMINATED FROM DETAILED CONSIDERATION**

| Public Services | |
|---|------------------------------|
| a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, sheriff protection, schools, parks, libraries? | Less-than-Significant Impact |
| Recreation | |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | Less-than-Significant Impact |
| b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment? | Less-than-Significant Impact |
| c) Would the project interfere with regional trail connectivity? | Less-than-Significant Impact |
| Transportation | |
| d) Result in inadequate emergency access? | Less-than-Significant Impact |
| Utilities and Service Systems | |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | Less-than-Significant Impact |

SOURCE: Draft EIR Appendix A2.

3.1.3.6 Future Projects Facilitated by the Draft 2045 CAP

The Draft 2045 CAP is a policy document that does not propose any specific development or any other specific physical change to the environment. No growth would result from implementation of the CAP beyond what the General Plan (including the Housing Element) currently anticipates. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Draft 2045 CAP. Future developments will be subject to project-level environmental review where they are not exempt from CEQA.

Nonetheless, future projects facilitated by Draft 2045 CAP measures and actions may cause environmental impacts. For example, Strategy 1, Strategy 4, and Strategy 5 (regarding decarbonization of the energy supply, vehicles, and buildings, respectively) would incentivize new or upgraded energy generation and related infrastructure. Examples of such projects could include distributed generation via solar roofs, community solar, or microgrids; battery storage and electric vehicle charging stations; utility-scale solar photovoltaic (PV) development; and/or energy transmission and subtransmission facilities. New or upgraded water recycling systems and waste management facilities, and the decommissioning of existing oil and gas operations also could be facilitated by Draft 2045 CAP measures and actions. Details about any specific such projects that could be facilitated by Draft 2045 CAP measures and actions are unknown.

Regarding new utility-scale solar projects, it would be speculative to quantify the amount of renewable energy that could be facilitated by the Draft 2045 CAP that would be provided by new utility-scale solar projects, or identify where that demand would be met, since the increased

renewable energy demand could be met in a variety of additional ways, other than through new utility-scale solar projects. In particular, the importation of renewable energy into the unincorporated areas by providers such as the CPA and further development of rooftop solar are described below as reasonable, feasible steps on the County’s overall path to meeting its targets and advancing toward its goal of carbon neutrality. However, because the future development of new utility-scale, ground-mounted solar PV could be part of the mix, the impacts of such future development are evaluated qualitatively in this EIR.

Section 2.6.2.1 in Chapter 2, *Project Description*, describes the CPA, which enables the County to transition to a low-carbon energy future at an accelerated pace: “Starting in October 2022, customers in unincorporated areas of L.A. County will be getting 100% renewable energy – wind, solar, geothermal – from CPA, compared to the 50 percent clean energy they receive now... low-income customers on a subsidized rate will not have any rate increase” (CPA 2021; County of Los Angeles Chief Sustainability Office 2021). Not all of CPA’s clean energy would be generated in Los Angeles County: “Almost all this energy will come from wind and solar farms in California with a little bit coming from other western states and a little coming from geothermal and small hydroelectric” (County of Los Angeles Chief Sustainability Office 2021).

The County realistically can procure electricity that is generated by 100 percent renewable sources from CPA with a realistic expectation of resiliency.¹ CPA currently provides “100% renewable energy to nearly 1 million residents and businesses” across its service territory “without any supply shortages” (County of Los Angeles Chief Sustainability Office 2021). Further regarding challenges with the power grid, resiliency and reliance on 100 percent renewable energy, the Chief Sustainability Office has stated, “The power grid definitely needs to be upgraded, but for the most part the grid doesn’t care whether it is moving electricity that came from a coal plant or a solar project. So, transitioning away from dirty electricity to cleaner isn’t going to cause the grid to breakdown.” To assure that energy is available, CPA “procures extra power to have as a back-up, including from renewable resources like geothermal that operate around the clock. It is also the third largest purchaser of battery energy storage in California so that when there is extra wind or solar power, it can be stored for use when power is needed” (County of Los Angeles Chief Sustainability Office 2021).

Separate from renewable energy provided by CPA, a substantial amount of solar energy generation would likely occur on rooftops within the County. For example, a 2016 National Renewable Energy Laboratory (NREL) study that found that Los Angeles could support 9 gigawatts of rooftop solar, or 60 percent of its estimated total energy demand, using fairly conservative estimates (Gagnon et al. 2016). A 2020 study by the Institute of the Environment and Sustainability at the University of California, Los Angeles (UCLA) that considered 1.2 million parcels as part of its evaluation of urban rooftop solar capacity in the County also was encouraging in its conclusion that rooftop solar can provide 30 percent of building demands and additional net grid exports in the County (Porse et al. 2020).

¹ *Energy resiliency* means there is a reliable, regular supply of energy as well as contingency measures in place to provide backup in the event of a power failure.

The County is not alone in reasonably concluding that a 100 percent clean energy future would not be comprised exclusively of utility-scale ground-mounted solar PV. Others in the region independently are pursuing a similar path. For example, the City of Los Angeles Department of Water and Power (LADWP) in coordination with NREL also is considering feasible options toward a carbon neutral 2045 that anticipates significant growth in the development of rooftop solar and higher levels of building energy efficiency in addition to new ground-mounted solar energy generation system deployment and power system upgrades (Cochran et al. 2021). “Keeping the lights on was a foundational part” of the LADWP/NREL study, which concluded that “[r]eliable, 100% renewable electricity is achievable” (Cochran et al. 2021).

The County similarly expects that no single renewable energy approach will be sufficient to achieve necessary GHG emissions reductions. Further, even if new utility-scale solar projects would meet some of the increased renewable energy demand associated with the 2045 CAP, it would be speculative to predict whether these projects would be located in Los Angeles County versus other locations. The precise locations or composition of future utility-scale, ground-mounted solar PV that may be facilitated by the Draft 2045 CAP cannot now be known with sufficient certainty for this EIR to provide more than a qualitative analysis of impacts. The qualitative programmatic analysis considers the potential impacts of new utility-scale, ground-mounted solar PV projects, and associated infrastructure, e.g., battery storage, substation or transmission projects).

3.1.3.7 Timing of CAP Impacts

In the Draft 2045 CAP, Table E-1 identifies implementation details for the strategies, measures, and actions, including timing-related performance objectives that represent guideposts for the successful implementation of each measure and the 2045 CAP as a whole. See Table 2-11, Anticipated 2045 CAP Implementation Timing, in Chapter 2, *Project Description*, which shows (consistent with Draft 2045 CAP, Table E-1) that implementation of the Draft 2045 CAP would occur over three phases, which take advantage of easier short-term measures and actions to meet the 2030 target and then build up to more complex solutions as the 2035 target and 2045 target dates approach. Although Table 2-11 shows when an implementation action would first be implemented, the environmental impacts resulting from implementation would typically continue and increase following initial implementation. For example, although implementation in the short term (2024-2030) of actions to decarbonize the energy supply would result in short term adverse impacts, it also would result in benefits that would increase beyond the short term to help achieve related performance objectives of reducing oil and gas operations 40% by 2030, 60% by 2035 and 80% by 2045. Anticipated implementation timing is identified in Table 2-11; the analysis of related impacts is documented on a resource by resource basis in this chapter.

3.1.4 Approach to Cumulative Impacts Analysis

As defined in CEQA Guidelines Section 15355, the term *cumulative impacts* refers to two or more individual impacts, which, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from multiple projects is the change in the physical environment that results from the incremental impact of the proposed project when

added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Sections 15355[b] and 15130[a][1]).

The analysis in this section evaluates cumulative impacts on a resource-by-resource basis by considering the incremental impacts of the Project together with the ongoing effects of past, present, and reasonably foreseeable probable future projects that could cause environmental impacts that are closely related to those caused by the Project. Factors considered in determining whether a project is included in the cumulative impact analysis include whether it would cause impacts of the same nature as the Project in the same area at the same time. In each case, the analysis follows the steps listed below. The analysis of whether an alternative could cause or contribute to cumulative impacts is provided in Chapter 4, *Alternatives*, and follows these same steps.

- (1) Determine if the Project would result in no impact for any resource area or consideration, then the Project could not cause or contribute to any significant cumulative impact. No additional discussion is needed in such instances. For all other instances, the analysis continues.
- (2) Define the geographic scope of the impacts associated with each resource area affected by the Project. The geographic scope of the cumulative impacts analysis for each resource area is tailored to the natural boundaries of the affected resource or area of consideration. See **Table 3.1-2, *Geographic Areas for Cumulative Analysis***, which identifies the geographic scope of the impacts associated with each resource area affected by the Draft 2045 CAP. Only those projects that could cause impacts in the same geographic area are relevant for a given resource.
- (3) Define the temporal scope of the impacts associated with each resource area affected by the Project. For example, are the Project's impacts restricted to a certain period or have the potential to occur at any point during the planning horizon?
- (4) Identify relevant plans, projections, and projects for cumulative impact analysis, which consists of resource area-specific trends; projections contained in one or more local, regional, or statewide planning documents; and past, present, and reasonably foreseeable probable future projects.² The incremental contribution of past projects generally is reflected in the existing environmental conditions within the cumulative impacts area, which reflect a combination of the natural condition and the ongoing effects of past actions in the affected area.
- (5) Identify, on a significance criterion-by-criterion basis, the incremental Project-specific impact before the implementation of any identified mitigation measures. Note whether they are temporary or permanent, as well as whether limited to a specific issue (e.g., emissions of nitrogen oxides but not PM₁₀).
- (6) Describe the impacts associated with the plans/projections and projects within the geographic and temporal scopes of the respective resource's impacts and determine whether the Project's impacts and the cumulative projects' impacts (when combined) would be significant. If not, the analysis concludes that a less-than-significant cumulative impact would result.
- (7) If when combined, the Project's impacts and the cumulative plans', projections' or projects' impacts would be significant, then determine whether the Project's incremental impact is

² CEQA Guidelines Section 15130(b) recommends that cumulative impacts be analyzed using a "project" or "projection" approach. This EIR uses a blended hybrid approach.

cumulatively considerable. A less-than-significant incremental impact may, nonetheless, be cumulatively considerable. The Project’s contribution to a significant cumulative impact may not be cumulatively considerable based on the implementation of appropriate mitigation. The cumulative impact analyses first determine whether the Draft 2045 CAP’s incremental impacts would be cumulatively considerable pre-mitigation, and then consider whether they would be cumulatively considerable post-mitigation. Mitigation measures identified at the Project-specific level can be considered in this context to determine whether their implementation would reduce the significance of the cumulative contribution below the established threshold. If with mitigation the Project’s contribution would not be cumulatively considerable, then the analysis concludes that the Project’s cumulative impact would be less than significant. Alternatively, even with the implementation of feasible mitigation measures, if the Project’s contribution would remain above the identified threshold, then the analysis concludes that the Project’s cumulative impact would be significant and unavoidable.

**TABLE 3.1-2
 GEOGRAPHIC AREAS FOR CUMULATIVE ANALYSIS**

| Resource Area | Geographic Area |
|--|--|
| Aesthetics | Public viewsheds, e.g., scenic views of hillsides and mountains and the three adopted scenic highways within the unincorporated areas. |
| Agriculture and Forestry | Farmland in the unincorporated areas that has been designated pursuant to Farmland Mapping and Monitoring Program as Prime Farmland, Farmland of Statewide Importance or Unique Farmland; that has been designated by the County as Farmland of Local Importance or Grazing Land; or that is subject to a Williamson Act contract. Forest land in the unincorporated areas includes Angeles National Forest and a small portion of Los Padres National Forest (which are managed by the U.S. Forest Service) and approximately 40,000 acres of private inholdings within these forests that are subject to the County’s land use jurisdiction. |
| Air Quality | The South Coast Air Basin and the Mojave Desert Air Basin. |
| Biological Resources | Los Angeles County, the adjacent Tehachapi Mountains and Mojave Desert within Kern County to the north, the Mojave Desert and San Bernardino National Forest within San Bernardino County to the east, the Cleveland National Forest within Orange and Riverside counties to the southeast, and Santa Monica Mountains and Los Padres National Forest within Ventura County to the west. |
| Cultural Resources, Tribal Cultural Resources, and Paleontological Resources | Countywide. |
| Energy | Countywide (electricity) and 40-mile travel radius (fuel). |
| Geology and Soils | Geologic and soils impacts are site specific, and therefore would not contribute to cumulative impacts. |
| GHGs | Statewide, with a focus on the unincorporated areas. |
| Hazards and Hazardous Materials | The unincorporated areas. |
| Hydrology and Water Quality | The hydrologic regions, major watershed areas, regional groundwater recharge areas, and groundwater basins in the County. |
| Land Use and Planning | The unincorporated areas. |
| Noise | Countywide, including the sites of future development facilitated by the Draft 2045 CAP. |
| Population and Housing | The unincorporated areas. |
| Transportation | Countywide. |
| Utilities and Service Systems | Service areas of regional utility and service providers. |

TABLE 3.1-2 (CONTINUED)
GEOGRAPHIC AREAS FOR CUMULATIVE ANALYSIS

| Resource Area | Geographic Area |
|----------------------|---|
| Wildfire | Region, including areas within the County mapped by the California Department of Forestry and Fire Protection (CAL FIRE) as Very High, High, and Moderate Fire Hazard Severity Zones. |

NOTES: 2045 CAP = 2045 Los Angeles County Climate Action Plan; Unincorporated Los Angeles County = unincorporated areas of Los Angeles County; Countywide = Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; GHG = greenhouse gas; County = County of Los Angeles government
SOURCE: Data compiled by Environmental Science Associates in 2022.

3.2 Aesthetics

This section identifies and evaluates issues related to aesthetics to determine whether the Project would result in a significant impact related to scenic vistas; views from a regional trail; scenic resources in a state scenic highway; existing visual character or quality; or shadows, light, or glare that would adversely affect day or nighttime views in the area. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. In addition to suggestions that the EIR evaluate the impacts of new and upgraded renewable energy infrastructure, comments suggest that the Draft 2045 CAP could facilitate the development of new waste handling and composting (mulch generation) facilities, renewable energy generation facilities, and water recycling facilities in the Los Angeles County's more rural communities, and that such future development could cause impacts on aesthetics. Comments relevant to aesthetics note that the Antelope Valley has two existing dumps and multiple solar farms and request consideration of the cumulative impacts of adding the Draft 2045 CAP's incremental contribution to the existing environment.

3.2.1 Setting

3.2.1.1 Study Area

The study area for this analysis of aesthetics impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2. Some portions of the unincorporated County are urban centers with large populations of more than 150,000, whereas other areas (such as the high desert) have sparse populations.

3.2.1.2 Environmental Setting

Regional Visual Character

Los Angeles County is a large region with a diverse visual setting that includes both natural and built environments. Natural environments in the region include the coastal resources, beaches, foothills, mountains, and ridgelines, and the high desert environment of the Antelope Valley. Coastal landscapes range from open sandy beaches to rugged, cliff-edged shores with offshore rocks. The San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, and Puente Hills shape the topography of the region and create distinct communities with varying aesthetic character. These landforms, along with the coastline, define the region's scenic character.

Urban and built environments include industrial, commercial, residential, office, institutional, and public land uses (Los Angeles County 2015a, 2021a). Each of the 11 County Planning Areas has a different visual character defined by the surrounding topography and landforms, and natural environments, built environment, and communities. For example, the visual character of the East San Gabriel Valley Planning Area, in the easternmost part of Los Angeles County, is predominantly suburban with predominantly single-family residential uses, particularly in the areas closer to the foothills on the northern border of the Planning Area (Los Angeles County 2021b).

Scenic Vistas and Viewsheds

The General Plan does not designate scenic vistas, but identifies them as a key feature of a *scenic viewshed*, which is a scenic vista from a given location, such as a highway, park, hiking trail, river/waterway, or particular neighborhood. The roadway network, including highways, is described in Section 3.15, *Transportation*. Local parks, regional recreation parks, regional open space, natural areas, and the local and regional park systems are described in Section 4.16, *Recreation*, of the County’s Housing Update EIR (Los Angeles County 2021c). The Santa Monica Mountains, unincorporated areas surrounding the city of Santa Clarita, and the Antelope Valley support a high concentration of County trails (Los Angeles County 2015a). Notably, the Pacific Crest Trail traverses the San Gabriel Mountains within Angeles National Forest, extending generally west–east across the San Gabriel Mountains. The boundaries of scenic viewsheds are defined by the field of view from the nearest ridgeline. Scenic vistas are available, for example, from the San Gabriel Mountains, Verdugo Hills, Santa Monica Mountains, Simi Hills, and Puente Hills. Scenic viewsheds may include ridgelines, unique rock outcroppings, waterfalls, ocean views, or other usual or scenic landforms (Los Angeles County 2015a).

Using the County’s definitions of scenic viewsheds and significant scenic resources, individual communities within the unincorporated areas may designate specific scenic viewsheds, routes, or resources. For example, Goal COS 5 in the Antelope Valley Area Plan identifies scenic resources in the Antelope Valley as including scenic drives, significant ridgelines, Hillside Management Areas (HMAs), Significant Ecological Areas (SEAs), water features, and buttes (Los Angeles County 2015b). Designated scenic drives are shown in the area Antelope Valley Area Plan’s Map 4.2, *Antelope Valley Scenic Drives* (Los Angeles County 2015b).

Scenic Highways

Through the California Scenic Highway Mapping Program, the California Department of Transportation (Caltrans) designates routes that are eligible to become state or Los Angeles County scenic highways. These determinations are based on the scenic value of the lands surrounding these roadways, and on how readily visible these resources are to those driving on the roadway (Los Angeles County 2021b). According to state guidelines, a highway may be designated scenic depending on the amount of the natural landscape that can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler’s enjoyment of the view (Caltrans 2022).

Caltrans has designated the following highways in Los Angeles County as scenic (Caltrans 2015, 2017):

- Two designated state scenic highways: Angeles Crest Highway (State Route [SR] 2) from 2.7 miles north of Interstate 210 to the San Bernardino County line, and Topanga Canyon State Scenic Highway (a 2.5-mile segment of State Route 27 that runs through the County and City of Los Angeles in the Santa Monica Mountains National Recreation Area near the Pacific coast).
- Two designated Los Angeles County scenic highways:
 - Two sections of Mulholland Highway—from SR 1 to Kanan Dume Road, and from west of Cornell Road to east of Las Virgenes Road.
 - Malibu Canyon–Las Virgenes Highway, from SR 1 to Lost Hills Road.

Eight highways in unincorporated Los Angeles County are eligible for designation (Caltrans 2019). The Los Angeles County Scenic Highway Element was created in 1974 to conform to the State Scenic Highway Program (Los Angeles County 1974).

Dark Skies

Although the more urbanized areas of Los Angeles County are heavily affected by nighttime lighting, light pollution is less evident in less densely populated parts of the County, such as in foothill communities located away from the Los Angeles Basin and in the Antelope Valley. In darker areas of the County, the best times of the year for clear skies, good weather, and interesting astronomical sights are between March and May and between September and November (Space Tourism Guide 2022).

3.2.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies pertaining to aesthetics would apply to the Draft 2045 CAP.

State Laws, Regulations, and Policies

California Department of Transportation Scenic Highway Program

The California Scenic Highway Program (Streets and Highways Code Sections 260–263) is maintained by Caltrans to “protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment” (Caltrans 2022). Caltrans either officially designates state scenic highways or determines them to be eligible for such designation. Factors considered in determining whether a highway is “scenic” include the amount of natural landscape visible by motorists, the scenic quality of the landscape, and the extent to which development intrudes on the motorist’s enjoyment of the view (Caltrans 2022).

California Building Code

The California Building Code (California Code of Regulations Title 24) consists of 12 parts that combine building standards contained in or based on provisions of the International Building Code, or that have been adopted by the California Legislature to address particular California

concerns (California Department of General Services, Division of the State Architect 2021). It includes standards for outdoor lighting that are intended to improve energy efficiency, and to reduce light pollution and glare by regulating backlighting, uplighting, and glare as well as light power and brightness, shielding, and automatic sensor controls. Minimum light intensities for pedestrian pathways, circulation ways, parking lots, and paths of egress are stipulated in Part 1; lighting control requirements are stipulated in Part 6. Outdoor lighting power density allowances and nighttime dimming requirements for outdoor lighted signs are also provided.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The Conservation and Natural Resources Element of the General Plan includes the following policies that are relevant to aesthetic impacts in the unincorporated areas:

Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.

Policy C/NR 13.2: Protect ridgelines from incompatible development that diminishes their scenic value.

Policy C/NR 13.4: Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.

Policy C/NR 13.6: Prohibit outdoor advertising and billboards along scenic routes, corridors, waterways, and other scenic areas.

Policy C/NR 13.8: Manage development in Hillside Management Areas (HMAs) to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

As part of the General Plan's Conservation/Open Space and Land Use Elements, the County has identified and adopted policies for SEAs. The objective of the SEAs is to preserve Los Angeles County's genetic and physical ecological diversity by designating biological resources areas capable of sustaining themselves into the future. The SEA designation is given to land that contains irreplaceable biological resources and includes undisturbed or lightly disturbed habitats that support valuable and threatened species and linkages and corridors to promote species movements. SEAs represent a wide range of ecological communities and provide aesthetic enjoyment.

The Land Use Element of the General Plan includes the following goals and policies that are relevant to analyzing the Project's aesthetics impacts:

Policy LU 10.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.

Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.

Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.

Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.

Goal LU 6: Protected rural communities characterized by living in a non-urban or agricultural environment at low densities without typical urban services.

Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.

Goal LU 7: Compatible land uses that complement neighborhood character and the natural environment.

Goal LU 10: Well-designed and healthy places that support a diversity of built environments.

Policy LU 10.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.

Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.

Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.

Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.

Area Plans and Community Plans

The County has adopted three area plans: the Antelope Valley Area Plan, Santa Clarita Valley Area Plan, and Santa Monica Mountains North Area Plan. Consideration of two other area plans is pending: the Metro Area Plan and the East San Gabriel Valley Area Plan. The County also has adopted seven community plans (one each for Altadena, East Los Angeles, Hacienda Heights, Rowland Heights, Twin Lakes, Walnut Park [a “neighborhood plan”], and West Athens–Westmont) and three local coastal land use plans: the Marina del Rey, Santa Monica Mountains, and Santa Catalina Island Local Coastal Land Use Plans. These community-based plans contain policies and standards that regulate visual resources in their respective areas. For example, Issue 2 in the Altadena Community Plan calls for the preservation of existing single-family character in Altadena (Los Angeles County 1986).

Los Angeles County Code

Several sections of the County Code address visual resources. Title 21, governing subdivisions, would apply to new subdivisions that could be facilitated by the Draft 2045 CAP and contains provisions related to the design of highways, local streets, lots, and aspects of landscaping. Title 22, governing planning and zoning, describes the development standards that apply to each

zone. Chapter 22.80, for example, regulates light and glare and Division 10 contains development regulations and standards for community standards districts.

Rural Outdoor Lighting District Ordinance

The County's Rural Outdoor Lighting District Ordinance is part of Title 22 of the County Code (the Zoning Code). It was developed to promote dark skies and minimize the impacts of light pollution that are detrimental in rural areas to observations of the nighttime sky and to the health of wildlife. The Rural Outdoor Lighting District encompasses several small portions of the unincorporated urban islands (mostly foothill areas, such as in the San Gabriel Mountains), many of the unincorporated areas in the Santa Clarita Valley Planning Area and the Santa Monica Mountains Planning Area, and nearly all of the Antelope Valley Planning Area.

Los Angeles County Hillside Management Areas Ordinance

The HMA Ordinance applies to all unincorporated areas of the County that contain terrain with a natural slope of 25 percent or greater. The goal of the ordinance is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. It encourages locating development outside of HMAs to the greatest extent feasible. Where avoidance is not feasible, development of HMAs is to be located in the lowest and flattest areas of the hillside to minimize impacts on steeper hillside areas. Last, development is to utilize a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the Los Angeles County Planning and Zoning Code.

Los Angeles County Mills Act Program

Chapter 22.168 of the Zoning Ordinance is the County's Mills Act Program. The program provides an incentive for owners of qualified historical properties within the unincorporated areas to preserve, restore, and rehabilitate the historic character of such properties, thereby providing a historical, architectural, social, artistic, and cultural benefit to the citizens of Los Angeles County, as authorized by the Mills Act (Government Code Section 50280).

Los Angeles County Oak Tree Ordinance

Chapter 22.174 of the Los Angeles County Code of Ordinances is the Oak Tree Ordinance. The ordinance recognizes oak trees in Los Angeles County as a historical, aesthetic, and ecological resource. The ordinance applies to all unincorporated areas of the County. Under the ordinance, it is unlawful to "cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak genus" that is 8 inches or more in diameter.

Renewable Energy Ordinance

The County's Renewable Energy Ordinance helps California meet its goals for renewable energy generation and generation of greenhouse gas emissions. The two primary goals of this ordinance are:

- Incentivize small-scale and structure-mounted projects to generate energy for on-site use, and structure-mounted projects (such as on rooftops and over parking lots) to reduce dependence on ground-mounted utility-scale projects.

- Regulate ground-mounted, utility-scale projects to better address community concerns and minimize environmental impacts, including impacts on visual resources, that could be caused by aboveground placement of transmission lines and the generation of fugitive dust associated with ground-disturbing activities or vegetation clearance.

The Renewable Energy Ordinance prohibits ground-mounted, utility-scale solar facilities in SEAs and Economic Opportunity Areas designated in the General Plan and the Antelope Valley Area Plan (Los Angeles County 2016). The Renewable Energy Ordinance also contains a suite of provisions to minimize the impacts of utility-scale, ground-mounted solar energy facilities on visual resources, including setbacks, provisions requiring the placement of transmission lines underground, and the incorporation of measures to minimize fugitive dust.

3.2.2 Impact Analysis

3.2.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact on aesthetics if it would:

- a) Have a substantial adverse effect on a scenic vista;
- b) Be visible from or obstruct views from a regional riding, hiking, or multiuse trail;
- c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- d) Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality (public views are those that are experienced from a publicly accessible vantage point); or
- e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area.

3.2.2.2 Methodology

The aesthetics analysis considers whether implementation of the Draft 2045 CAP would cause a significant impact on visual resources in unincorporated areas of the County. This section addresses scenic vistas, views from trails, visual character, and shadows, light, and glare. The assessment of aesthetics impacts is a qualitative evaluation, for which no discrete set of quantifiable parameters exists that can be applied. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

3.2.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists

the proposed greenhouse gas emissions reduction strategies and measures. None of the proposed measures or actions indicate locations where individual projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about individual project implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP.*)

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan’s land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, Summary of Draft 2045 CAP Measures and Affected Resource Areas, in the Executive Summary, identifies certain measures and actions relevant to this analysis of aesthetics-related impacts. These and other relevant measures and actions include Action T3.3 (which would facilitate the use of shading [shadow] and shade structures); measures and actions associated with Strategy 1, Decarbonize the Energy Supply; Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; Measures T6, T7, T8, and T9, each regarding the electrification of vehicles; and Strategy 5, regarding the electrification of buildings. These measures and actions could facilitate renewable energy generation and infrastructure projects, the development of which could affect aesthetics.

The timeframe during which the implementation of these actions and measures would cause impacts related to aesthetics and visual resources would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually creates an impact on a scenic vistas, obstructs views, damages scenic resources, degrades the existing visual character or quality of public views, or creates a new source of light or glare, for one or more of the specified reasons. If an impact occurs, it would occur immediately and could be short term (e.g., the presence of substantial nighttime construction lighting in a “dark skies” area during a meteor shower or other period of particular

astronomical interest) or continue in effect for the long term (e.g., new feature or structure visible from a regional trail). The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific aesthetics impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would have a substantial adverse effect on a scenic vista.

Impact 3.2-1: Projects facilitated by the Draft 2045 CAP would have a substantial adverse effect on a scenic vista. (*Significant and Unavoidable*)

The Draft 2045 CAP is a policy document that does not include specific projects that would have a direct, adverse effect on scenic vistas. Nonetheless, many of the projects facilitated by Draft 2045 CAP measures and actions would involve retrofitting of existing buildings, development along existing transit areas, infill projects in urban locations that are already developed, electric vehicle charging stations, or distributed energy resources like rooftop photovoltaic panels on existing structures. Where located in developed areas, these types of projects are not expected to significantly substantially affect views from scenic vistas or viewsheds because at a distance, they would be more likely to blend in with the surrounding existing development and visual environment, and they would not be likely to create changes to visual character or quality that would be visible from a scenic vista or that would noticeably significantly interrupt views available from scenic vistas. For example, rooftop photovoltaic panels generally do not noticeably alter rooflines or create large features that could be substantially visible from the street level, because (by code) they are not allowed to exceed the height limit for the zone in which the project is developed by more than 5 feet. In some cases, photovoltaic panels could be installed on sloped roofs facing public vantage points, making them visible from public areas. However, the visual pattern and positioning of the panels would be at the same slope as the roof upon which they are mounted. From a distance, if the roofs are part of a scenic vista, the addition of panels would not be discernible to the naked eye.

However, larger-scale projects facilitated by the Draft 2045 CAP in more rural or open areas (such as utility-scale solar generation facilities, waste handling facilities, or water recycling facilities) and ground-mounted energy systems on a hillside or desertscape could, depending on project specifics and siting details, alter scenic views by introducing elements that break existing horizon lines or otherwise detract from a scenic vista or viewshed. Impacts could include short-term, temporary visual impacts from construction vehicles, dust, or lighting, or long-term impacts from the introduction of new forms (such as straight lines or sharp angles of areas cleared for new access roads to and through new projects or from cleared areas beneath power lines) or structures (such as power poles and lines, photovoltaic panels, operation and maintenance buildings, battery enclosures and substations) that have height, forms, or colors that contrast with existing conditions. HMA Ordinance protections would apply if a project would involve cut and fill of 15,000 cubic yards of material or more, but would not apply to smaller projects or those located in areas with slopes of less than 25 percent. The Renewable Energy Ordinance contains a suite of provisions to minimize the impacts of utility-scale, ground-mounted solar energy facilities on visual resources, including setbacks, provisions requiring the placement of transmission lines underground, and the incorporation of measures to minimize fugitive dust. Where the HMA Ordinance or the Renewable Energy Ordinance requires a conditional use permit (Los Angeles County 2016), projects implementing Draft 2045 CAP measures and actions would be subject to site-specific, project-specific CEQA review; however, such review would not ensure that significant impacts on scenic views and viewsheds would be reduced to a less-than-significant level. In addition, projects not governed by the HMA Ordinance and/or the Renewable Energy Ordinance, as well as larger (e.g., utility-scale) renewable energy projects facilitated by Draft 2045 CAP actions and measures, could result in a significant impact.

Projects facilitated by Draft 2045 CAP measures and actions, potentially including wastewater treatment plants or organic waste processing facilities as well as energy-related projects, would be required to be consistent with the General Plan provisions summarized in Section 3.2.1.2, *Environmental Setting*. Such projects also must comply with applicable sections of the County Code, which regulate the appearance and siting of physical developments to protect hillside views, the modification of scenic resources, and the visual quality of new development. Projects requiring a conditional use permit or other discretionary authorization would have to meet development standards of the County Code. Additionally, compliance with the County Code provisions relating to the protection of HMAs would help preserve the scenic character of affected ridgelines and hillsides. Because Los Angeles County's varied topography allows for myriad long-range views from the Los Angeles Basin to the foothills and mountains, as well as long-range views from the foothills and mountains to the Los Angeles Basin and coast, compliance with the HMA Ordinance would potentially reduce aesthetics impacts from hillside and ridgeline scenic vistas and viewsheds (Los Angeles County 2015a). However, depending on the size and scale of a given project, aesthetics impacts may not be avoided simply by this regulatory adherence.

The Draft 2045 CAP includes Measure A1, which would preserve agricultural and forest lands, and Measure A3, which would expand Los Angeles County's tree canopy and green spaces. These policies would preserve existing open spaces that contribute to the visual quality of scenic vistas and would result in a beneficial impact. Additionally, Measure T3 would expand bicycle

and pedestrian networks, which could result in an expansion in the number and accessibility of publicly accessible scenic vistas, resulting in a beneficial impact.

Therefore, consistency with the HMA and Renewable Energy ordinances and General Plan and zoning provisions, as well as implementation of Draft 2045 CAP measures and actions, could reduce certain impacts on scenic vistas and provide some beneficial changes. However, as also noted in detail above, smaller renewable energy projects and those not governed by the HMA Ordinance and/or the Renewable Energy Ordinance, as well as larger (e.g., utility-scale) renewable energy projects facilitated by Draft 2045 CAP actions and measures, could result in a significant impact. Additionally, depending on the size and scale of projects that may facilitate the Draft 2045 CAP, compliance with the applicable plans, policies, and regulations discussed above may not be sufficient to reduce aesthetic impacts to a less-than-significant level. Consistent with the findings of the County's Renewable Energy Ordinance EIR (Los Angeles County 2015c), no feasible mitigation measures are available to reduce these impacts attributable to the Draft 2045 CAP. Thus, the impact would be significant. Mitigation measures to reduce this impact would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.2-1, Alternative Design: Projects facilitated by the Draft 2045 CAP that would obstruct views from publicly-accessible vantage points as defined in this analysis (such as from a vista point or a regional riding, hiking, or multiuse trail) shall identify and protect public views and significant landscape features or landforms visible from such views, and shall implement project-specific mitigation as applicable. If it is determined that a project would obstruct scenic views, the County shall consider alternative designs that seek to avoid and/or minimize these impacts. Project-specific design measures may include reduction in height of improvements or width of improvements to reduce obstruction of views or other adverse visual effects, or relocation of improvements to reduce obstruction of views. The County shall consider taking the following (or equivalent) actions: i) Require that the scale and massing of new development provide appropriate transitions in structure height and bulk that are sensitive to the physical and visual character of the affected area; ii) ensure structure heights are stepped back to maintain appropriate transitions in scale and to protect scenic views; and iii) avoid siting electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines where they could obstruct views from public vantage points, such as a regional riding, hiking, or multiuse trail, along scenic roadways and routes, or scenic vista points.

Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures: To partially screen views of projects facilitated by Draft 2045 CAP measures and actions in locations where they would be visible from publicly accessible vantage points (e.g., scenic vistas, trails, scenic roadways and routes) and affect visual character or quality, if feasible and effective, the County shall (and other implementing state or local agencies can and should) require the construction of a berm, vegetative screening, or other form of visual barrier of sufficient height to provide a visual transition from ground level to surrounding hills or ridgelines. The color of proposed building facades and roofs shall be designed to visually blend in and minimize the potential for visual contrast between the project elements and their natural landscape surroundings. Bright or very light colors (including white) shall be avoided. Re-contouring and revegetation of temporarily disturbed, graded areas shall be completed to provide a natural appearing landform upon completion of construction.

Significance after Mitigation: Impacts would be significant and unavoidable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, would reduce the severity of an impact on scenic vistas by adjusting the scaling and massing of structures, using step-backs from sensitive adjoining uses, planning for project/facility siting, and installing visual screening; however, these measures would not on their own merits ensure that the impact would be less than significant. For example, details about the siting and design of future utility-scale projects facilitated by the Draft 2045 CAP, and the feasibility and effectiveness of project specific mitigation measures, are unavailable. No additional feasible mitigation measures are available. Accordingly, with the implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2, Impact 3.2-1 would remain significant and unavoidable.

Criterion b) Whether the Project would be visible from or obstruct views from a regional riding, hiking, or multiuse trail.

Impact 3.2-2: Projects facilitated by the Draft 2045 CAP would be visible from or obstruct views from a regional riding, hiking, or multiuse trail. (*Significant and Unavoidable*)

A wide variety of trail types are found throughout Los Angeles County, including multiuse trails that are accessible to pedestrians, equestrians, and mountain bikers. Trails provide connectivity to parks, open spaces, and wilderness areas. The highest concentration of trails in Los Angeles County exists in the Santa Monica Mountains, around Angeles National Forest, throughout the Antelope Valley and near the foothills of the San Gabriel Mountains, and in the eastern areas of Los Angeles County near Lancaster and Palmdale (Los Angeles County 2015a).

As described above, the Draft 2045 CAP does not propose any site-specific projects. Nonetheless, projects facilitated by Draft 2045 measures and actions could result in visual changes that would be visible or obstruct views from a regional riding, hiking, or multiuse trail. For example, the development of utility scale solar or other renewable energy projects facilitated by the Draft 2045 CAP would result in visual changes that would obstruct views or that would be visible from a regional riding, hiking, or multiuse trail if the photovoltaic solar panel arrays or security fencing or other project infrastructure were to be installed between regional trail users and views otherwise available from those trails.

Draft 2045 CAP strategies such as Strategy 5, Strategy 6, and Strategy 7 would include measures that would require retrofits to existing buildings to electrify appliances, increase energy efficiency, and reduce water consumption. For example, Measure E1 would transition many existing buildings to all-electric and Measure E4 would improve the energy efficiency of existing buildings. These types of building retrofits would not be expected to result in changes to the mass, height, or color of buildings or other changes that could create a visual change visible from regional trails.

Although these types of projects would not result in significant visual impacts, other projects could result in more noticeable visual contrast and changes, especially if the projects are located in more rural or open-land areas of Los Angeles County. As evaluated under Impact 3.2-1, projects facilitated by Draft 2045 CAP measures and actions must be consistent with the General

Plan, comply with applicable, independently enforceable provisions of the County Code (including the HMA and Renewable Energy Ordinances), and site-specific environmental review for projects requiring a conditional use permit or other discretionary approval from a state or local agency. These requirements would reduce aesthetics impacts, but not necessarily to less-than-significant levels. As also noted above, smaller renewable energy projects not governed by the HMA Ordinance and larger (e.g., utility-scale) renewable energy projects facilitated by Draft 2045 CAP actions and measures could still result in a significant impact. Therefore, the impacts would be significant. Mitigation measures to reduce this impact would apply only if specific projects have potentially significant impacts.

Mitigation: Implement Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures.

Significance after Mitigation: Impacts would be significant and unavoidable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, would reduce the severity of an impact on a public regional riding, hiking, or multiuse trail by adjusting the scaling and massing of structures, using step-backs from sensitive adjoining uses, planning for project/facility siting, and installing visual screening; however, these measures would not on their own merits ensure that the impact would be less than significant. For example, details about siting and design of future utility-scale projects facilitated by the Draft 2045 CAP, and the feasibility and effectiveness of mitigation measures are unavailable. No additional feasible mitigation measures are available. Accordingly, with the implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2, Impact 3.2-2 would remain significant and unavoidable.

Criterion c) Whether the Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Impact 3.2-3: Projects facilitated by the Draft 2045 CAP would substantially damage scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway. (*Significant and Unavoidable*)

Caltrans has designated two highways in Los Angeles County as state scenic highways: Angeles Crest Highway (SR 2) from 2.7 miles north of Interstate 210 to the San Bernardino County line and the Topanga Canyon State Scenic Highway (a 2.5-mile segment of SR 27 located in the Santa Monica Mountains National Recreation Area near the Pacific coast). All but two of the parcels adjacent to the designated portion of SR 2 are within the watershed (W) zone, where permitted uses are those uses owned and maintained by the U.S. Forest Service and recreational uses approved by the Forest Service (County Code Section 22.40.250). One of the other parcels is designated R-R (Resort and Recreation), where permitted uses include recreation, amusement, and agricultural uses (County Code Section 22.40.190); the other is designated A-1 (Light Agricultural), where permitted uses include single-family residences, crops (field, tree, bush, berry, row, and nursery stock), greenhouses, and raising of cattle, horses, sheep, goats, poultry, birds, earthworms, and the like (County Code Section 22.24.070).

As disclosed above, the Draft 2045 CAP measures and actions could facilitate projects that would result in visual contrast or changes during the construction of projects or by creating new structures that would create changes to existing visual conditions. These projects could occur near designated scenic highways and could, depending on the location and design of the projects, result in changes to the visual resources visible along a scenic highway such as trees, rock outcroppings, or historic buildings. Most projects facilitated by Draft 2045 CAP measures and actions would involve modifications to existing buildings or would be located in areas that are already developed and are not as likely to be located near scenic resources, such as rock outcroppings or trees (Measures E1 and E4). These projects would not be likely to damage scenic resources.

As described above, the Draft 2045 CAP does not propose any site-specific projects. Nonetheless, Draft 2045 CAP Measure T3 could facilitate projects that would expand the bicycle and pedestrian network to serve residential, employment, and recreational trips; and Action T6.3 would result in the installation of electrical vehicle charging stations for new development. Such projects could be permitted uses on land adjacent to the portion of SR 2 that is a designated state scenic highway.

Other types of projects that could be facilitated by Draft 2045 CAP measures and actions (such as infill mixed-use projects, composting facilities, wastewater treatment facilities, or utility-scale, ground-mounted renewable energy projects) would not currently be allowable uses in locations adjacent to the specified portions of SR 2 or SR 27. Requisite consistency with the existing General Plan would tend to protect scenic resources, protect ridgelines and hillsides, prohibit advertising along scenic routes, protect historical resources, and support the preservation of historic buildings. Compliance with zoning requirements (including the Oak Tree and HMA Ordinances) would protect trees and views of hillsides and ridgelines in the state scenic highway corridors. Further, incentives provided by the Mills Act Program would reduce the potential for a project facilitated by Draft 2045 CAP measures and actions to substantially damage scenic resources within a state scenic highway because they would incentivize the protection of historic buildings. Nonetheless, if projects facilitated by Draft 2045 CAP measures and actions were to be constructed within the designated portions of SR 2 or SR 27 (or within areas that could affect the scenic highway designation eligibility factors), then substantial damage to scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings, could occur as a result of tree removal or blasting required for the construction of access roads or power line tower footings, maintenance of power line clearance zones or the implementation of vegetation management activities within the utility right of way, or burying underground utility lines. Thus, the impact would be significant. Mitigation measures to reduce this impact would apply only if specific projects have potentially significant impacts.

Mitigation: Implement Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures.

Significance after Mitigation: The impact would be significant and unavoidable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures would reduce the severity of an impact relating to substantial damage to scenic resources within a state scenic highway by adjusting the scaling and massing of structures, using step-backs from

sensitive adjoining uses, planning for project/facility siting, and installing visual screening; however, these measures would not on their own merits ensure that the impact would be less than significant. For example, details about the siting and design of future utility-scale projects facilitated by the Draft 2045 CAP, and the feasibility and effectiveness of mitigation measures, are unavailable. No additional feasible mitigation measures are available. Accordingly, with the implementation of these two mitigation measures, Impact 3.2-3 would remain significant and unavoidable.

Criterion d) Whether the Project would substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.)

Impact 3.2-4: Projects facilitated by the Draft 2045 CAP would substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.) (Significant and Unavoidable)

Neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would conflict with applicable zoning and other regulations governing scenic quality because no changes to existing zoning or other regulations governing scenic quality are proposed. Although the Draft 2045 CAP does not include specific proposed projects that could directly result in new or expanded development that could substantially degrade the existing visual character or quality of public views of the site and its surroundings due to their height, bulk, pattern, scale, character, or other features, projects facilitated by Draft 2045 CAP measures and actions could do so.

The Draft 2045 CAP includes measures and actions that would incentivize mixed-use developments, infill developments along transit-oriented areas, and the development of water recycling, waste management, and/or compost processing facilities, as well as renewable energy generation and infrastructure projects. Some of these types of projects (like infill developments along transit-oriented areas) could be proposed in developed areas where they would not substantially degrade the existing visual character or quality of public views of sites and their surroundings. However, other types of projects (like utility-scale, ground-mounted energy generation and infrastructure projects or solid waste or composting facilities) are more likely to be proposed in more rural, open land areas of Los Angeles County, where the resulting visual contrast to existing conditions would be greater. All projects facilitated by Draft 2045 CAP measures and actions must be consistent with the General Plan and the HMA and Renewable Energy ordinances, and comply with applicable provisions of the County Code, including its regulation of height limits, setbacks, bulk, and the like as well as development standards appropriate to each zone. The County Code also includes specific ordinances to protect the visual quality of HMAs and ridgelines. This consistency and compliance would reduce impacts on visual character, but not necessarily to a less-than-significant level.

Projects resulting from implementation of Draft 2045 CAP measures and actions that are proposed in areas that feature existing urban development could introduce higher density

development, mixed uses, rooftop solar, and the adjustment of landscaping to drought tolerant plants. Such changes in such locations are expected to result in small adjustments to community character and visual appearance. Retrofits to existing buildings to incorporate water and energy efficiency measures would likely involve changes to the interior of building structures and would not be visible from publicly accessible viewpoints.

Other projects facilitated by Draft 2045 CAP measures and actions, such as water recycling, waste management, and/or compost processing facilities, and utility-scale, ground-mounted renewable energy generation or infrastructure projects, could be proposed in more rural areas such as the Antelope Valley, where the introduction of project components could affect the existing visual character or quality of public views of the site and its surroundings because of their height, bulk, pattern, scale, character, or other features. For example, the introduction into the existing landscape of industrial features (such as the pavement, settling ponds, tanks and piping characteristic of a wastewater treatment facility; the composting windrows and related facilities, equipment, roads, parking and storage areas needed for a composting facility; and photovoltaic solar panel arrays, battery enclosures, substations, and switching stations needed for renewable energy generation and transmission) would transform and potentially contrast with the existing visual character or quality of public views of currently undeveloped sites and their surroundings. Thus, the impact would be significant. Mitigation measures to reduce this impact would apply only if specific projects have potentially significant impacts.

Mitigation: Implement Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures.

Significance after Mitigation: The impact would be significant and unavoidable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protect Measures, would reduce the significance of project-caused changes to existing visual character or quality by adjusting the scaling and massing of structures, using step-backs from sensitive adjoining uses, planning for project/facility siting, and installing visual screening; however, these measures would not on their own merits ensure that the impact would be less than significant. For example, details about the siting of future utility-scale projects facilitated by the Draft 2045 CAP, and the feasibility and effectiveness of mitigation measures, are unavailable. Therefore, the impacts of such projects relative to visual character or quality cannot be accurately assessed at this time, nor can project-specific mitigation be developed. No additional feasible mitigation measures are available. Accordingly, with the implementation of these two mitigation measures, Impact 3.2-4 would remain significant and unavoidable.

Criterion e) Whether the Project would create a new source of substantial shadows, light, or glare, which would adversely affect day or nighttime views in the area.

Impact 3.2-5: Projects facilitated by the Draft 2045 CAP would create a new source of substantial shadow, light, or glare, which would adversely affect day or nighttime views in the area. (*Less-than-Significant with Mitigation Incorporated*)

Shade, shadow, and glare could be created if buildings or structures were to block or direct the sunlight relative to adjacent properties, thereby affecting the users or occupants of adjacent properties. Related impacts can be influenced by the time of day, season, weather, height and bulk of buildings, spacing, topography, and other factors. Shade and shadow can result in positive effects, such as cooling, or negative effects, such as the loss of natural light. Projects facilitated by Draft 2045 CAP, Action T3.3 for example, would affect shade and shadow conditions because their implementation would enhance the shading of pedestrian and bicycle environments, include energy-efficient pedestrian-scale lighting, and result in the construction of shade structures at major transit stops. This would be an environmental benefit.

The Draft 2045 CAP measures and actions could result in the introduction of lighting to the environment as a result of the development of projects such as mixed-use or infill developments, building retrofits, composting facilities, water recycling facilities, or solar energy generation facilities. Depending on the location and design of these projects, they have the potential to create shade, shadows, daytime or nighttime glare, or nighttime lighting of proposed buildings or other structures.

Anything that scatters light between its source and the back of a person's eye can cause glare. Rain, snow, fog, or smoke can scatter sunlight, for example, and cracked, dirty, or frosty windshields can scatter light from street lamps or headlights. Glare can be caused by reflective surfaces, such as glass and glossy finishes on vehicles or structures. Draft 2045 CAP measures and actions could facilitate projects that cause glare, including new building construction, rooftop or ground-mounted solar projects, or other infrastructure projects that include components that reflect light. New structures could cause glare if they have glossy or bright finishes (e.g., paint, light-colored concrete) or large areas of exterior glass or reflective metal. Should these structures be located in developed areas, they could cause significant impacts related to glare.

Photovoltaic panels, which convert the sun's energy into electricity, can result in reflections and glare depending on the time of day, the angle of the sun, cloud cover, and other factors. Rooftop photovoltaic panels generally would be unnoticeable from ground level, where most viewers would be located. By code, these rooftop panels are not allowed to exceed the height limit for the zone in which the project is developed by more than 5 feet. However, rooftop photovoltaic panels could be installed on sloped roofs facing receptors, potentially making them visible or susceptible to glare in elevated locations. Photovoltaic panels are designed and the surfaces coated to absorb as much light as possible, rather than to reflect it (NREL 2018). Although the panels can result in some reflection or glare, the glare created by photovoltaic panels is generally considered to be less than that created by water or common building materials such as metal, glass, and Portland white cement concrete (Shields 2010; Riley and Olson 2011). Based on a review of existing

technical documentation on the effect of glare produced from photovoltaic panels and its effect on aviation safety, the Massachusetts Department of Energy Resources states that such panels reflect only approximately 2.0 percent of incoming sunlight, given the anti-reflective glass designed to capture and retain the solar spectrum (Massachusetts Department of Energy Resources 2015). For these reasons, impacts related to glare associated with rooftop photovoltaic panels would not be substantial and would be less than significant.

Similarly, utility-scale solar projects would also use anti-reflective photovoltaic panels and would be required to comply with the Renewable Energy Ordinance's permit conditions regarding glare minimization and all projects subject to a state or local discretionary authorization would be subject to site-specific, project-specific environmental review, which would address project siting or location and project-specific impacts and measures to reduce glare. For these reasons, impacts related to glare associated with utility-scale solar projects would not be substantial and would be less than significant.

Nighttime lighting would mostly be limited to lighting from infill and mixed-use projects or safety lighting needed on larger-scale project sites, such as water recycling, waste treatment, or energy generation facilities. Projects facilitated by the Draft 2045 CAP measures and actions could be located in more urbanized areas developed with considerable existing sources of nighttime lighting, or in more rural locations, in compliance with state and local lighting requirements summarized above. Compliance with applicable requirements for nighttime lighting (including requirements of the County's Dark Skies Ordinance within the Rural Outdoor Lighting District) would minimize projects' impacts on existing nighttime lighting conditions. Although compliance with this component of the Zoning Ordinance would reduce potential impacts for projects in rural areas, it would not address potential lighting impacts in more developed areas or areas not subject to this component of the Zoning Ordinance. In these cases, projects facilitated by the Draft 2045 CAP could still result in a significant lighting impact.

Improperly installed building lighting could result in a significant impact to those with a direct line of sight to a project area and could be perceived as a slight glow on the horizon for others who cannot see the facilities directly. Even if non-reflective, non-glare finishes are used on all structures for projects facilitated by the Draft 2045 CAP, some glare associated with glass or metal of new buildings could occur on sunny days. Unless mitigated, a significant impact would result. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.2-3, Reduce Light and Glare Impacts: To reduce significant light and glare impacts of projects facilitated by the Draft 2045 CAP, the County shall require the following measures to be incorporated: a) All lighting shall be focused toward the site and outdoor lighting shall be directed downward; b) The design of exterior light fixtures shall incorporate shielding to prevent glare and offsite light spillage; c) Outdoor lighting shall include non-glare fixtures; and d) Structure design shall include exterior finishes and materials that would be minimally reflective or sited or oriented in such a way as to direct glare away from sensitive receptors.

Significance after Mitigation: The impact would be less than significant. The implementation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would

ensure that project-related lighting would not substantially intrude on daytime or nighttime views in the area because its provisions would substantially limit light trespass and confine generated light to within project boundaries. Also, adhering to design and siting requirements would reduce the potential for glare. Accordingly, with the implementation of Mitigation Measure 3.2-3, Impact 3.2-5 would be less than significant.

3.2.2.4 Cumulative Impacts

Criterion a)

For the purpose of analyzing cumulative impacts on aesthetics, the geographic scope is Countywide, inclusive of both incorporated and unincorporated areas. Cumulative impacts could result at various locations within this area from implementation of projects facilitated by the Draft 2045 CAP measures and actions that could introduce sources of light, new facilities, or modifications to existing facilities until the features of projects facilitated by the Draft 2045 CAP measures and actions are removed. Construction and operational activities and conditions for past, present, and reasonably foreseeable future projects, including projects implemented in accordance with the Housing Element and other General Plan elements, with the Antelope Valley Area Plan (Los Angeles County 2015b) and other area plans, and with the Renewable Energy Ordinance and other municipal code requirements (see, for example, Los Angeles County 2009, 2015a, 2021a), would combine with the incremental impacts of the Project to cause or contribute to cumulative aesthetic conditions within Los Angeles County.

Impact 3.2-6: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact to scenic vistas. (*Significant and Unavoidable*)

Los Angeles County's scenic vistas are varied and dispersed. In locations where scenic vistas are of exceptionally high quality, such as in the Antelope Valley, the addition of incremental impacts from projects facilitated by Draft 2045 CAP measures and actions could be more likely to cause or make a cumulatively considerable contribution to a significant cumulative impact on scenic vistas. By contrast, in locations where the quality of scenic vistas is of lesser quality and more mundane, there is a decreased likelihood that projects facilitated by the Draft 2045 CAP measures and actions would cause or contribute to a significant cumulative impact on scenic vistas. Projects facilitated by the Draft 205 CAP would cause a cumulatively considerable contribution to significant cumulative impacts to scenic vistas for which no feasible mitigation is available.

Some projects facilitated by the Draft 2045 CAP measures and actions could be located in more rural or open areas of Los Angeles County, and therefore have the potential to result in greater visual contrast. Consistency with the General Plan and compliance with state and local requirements intended to protect scenic vistas would minimize potential impacts; however, the incremental impacts of the Project, together with the incremental impacts of past, present and reasonably foreseeable future projects, including past and present utility-scale solar projects in the Antelope Valley, would result in a significant cumulative impact. The Project's contribution to this impact would be cumulatively considerable. The implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, would reduce the severity of the Project's incremental contribution to cumulative impacts, but would not ensure that the Project's contribution would be less than

cumulatively considerable. Accordingly, this cumulative impact would remain significant and unavoidable. No additional feasible mitigation measures are available.

Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.

Significance after Mitigation: Impacts would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.2-7: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. (Significant and Unavoidable)

Implementation of the Draft 2045 CAP would cause or contribute to a significant cumulative impact on views from regional trails if future projects facilitated by Draft 2045 CAP measures and actions were located near other past, present, or reasonably foreseeable projects that have significant impacts on views from regional trails.

As analyzed under Impact 3.2-2, many of the projects facilitated by Draft 2045 CAP measures and actions would involve retrofits to buildings or development along urban corridors or infill areas. These types of projects are expected to involve small adjustments to visual character that are not expected to result in substantial changes to existing views from regional trails. Further, some projects would involve the preservation of open space and provision of regional walking and biking trails, which would likely result in beneficial impacts under this criterion. Other projects facilitated by Draft 2045 CAP measures and actions could be located in more rural or open areas of Los Angeles County, where their introduction could result in more visual contrast. Consistency with the General Plan, applicable area plans, the County Code requirements established to protect aesthetic resources would minimize impacts on views from regional trails, but would not ensure that such impacts would be less than significant.

The Project's incremental contribution to cumulative impacts, in combination with the incremental impacts of other cumulative projects, would cause (or result in a cumulatively considerable contribution to) a significant cumulative impact on views from regional trails. The Project's contribution to this impact would be cumulatively considerable. The implementation of Mitigation Measure 3.2-1, *Alternative Design*, and Mitigation Measure 3.2-2, *Visual Screening and Other View Protection Measures*, would reduce the severity of the Project's incremental contribution to cumulative impacts, but would not ensure that the Project's contribution would be less than cumulatively considerable. Accordingly, this cumulative impact would remain significant and unavoidable. No additional feasible mitigation measures are available.

Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.

Significance after Mitigation: The impact would be significant and unavoidable. No additional feasible mitigation measures are available to reduce impacts.

Criterion c)

Impact 3.2-8: Projects facilitated by the Draft 2045 CAP would cause or contribute to a significant cumulative impact due to substantial cumulative damage to scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway. (Significant and Unavoidable)

Implementation of the Draft 2045 CAP measures and actions could result in a cumulative impact on scenic resources within a designated state scenic highway (SR 2 and/or SR 27) if future projects facilitated by the Draft 2045 CAP measures and actions were located near other closely related past, present, and reasonably foreseeable future projects that affect resources within or adjacent to these designated scenic highways. As reflected by these roadways' designation as a state scenic highway, aesthetic resources within and adjacent to them are of exceptionally high quality. Thus, there is no significant adverse cumulative impact on such resources as a result of past projects.

Nonetheless, in combination with the incremental contributions of other closely related past present and reasonably foreseeable future projects that have been or may be approved within these state routes or within the areas to contribute to their eligibility for designation as a scenic highway, the Project's incremental contribution could cause a significant cumulative impact to occur. The Project's contribution to this impact would be cumulatively considerable. The implementation of Mitigation Measure 3.2-1, *Alternative Design*, and Mitigation Measure 3.2-2, *Visual Screening and Other View Protection Measures*, would reduce the severity of the Project's incremental contribution relating to substantial damage to scenic resources within a state scenic highway but would ensure that, in combination with the incremental impacts of other projects, the resulting cumulative impact would be less than significant. Accordingly, even with the implementation of these mitigation measures, the Project's contribution to significant cumulative impact would remain significant and unavoidable. No additional feasible mitigation measures are available.

Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.

Significance after Mitigation: The impact would be significant and unavoidable. No additional feasible mitigation measures are available to reduce impacts.

Criterion d)

Impact 3.2-9: Projects facilitated by the Draft 2045 CAP would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. (Significant and Unavoidable)

Los Angeles County's visual character is diverse, including both natural and built environments. Implementation of the Draft 2045 CAP measures and actions could result in a cumulative impact on visual character if future implementing projects were to be located near other cumulative projects that change or affect visual character. Past, present, and reasonably foreseeable future projects have been and would be developed in accordance with requirements of the Housing

Element and other General Plan elements, the various area plans, the Renewable Energy, Hillside Management, and other County ordinances, and with the mitigation measures or conditions of approval imposed as part of project-specific CEQA and permitting processes. Nonetheless, the incremental impacts of the Project, in combination with the incremental contributions of other closely related past present and reasonably foreseeable future projects, could cause or contribute to a significant cumulative impact regarding the degradation of the existing visual character or quality of public views of the site and its surroundings as a result of the transformation of existing undeveloped landscape to a more industrial look and feel as would be associated with the development of a water recycling, waste management, or compost processing facility or with the development of utility-scale, ground-mounted renewable energy generation or infrastructure projects if proposed in more rural areas. The implementation of Mitigation Measure 3.2-1, *Alternative Design*, and Mitigation Measure 3.2-2, *Visual Screening and Other View Protection Measures*, would reduce the Project's incremental contribution to cumulative impacts, but would not ensure that the contribution would not be cumulatively considerable. Accordingly, with the implementation of these mitigation measures, this cumulative would be significant and unavoidable. No additional feasible mitigation measures are available.

Mitigation: Implement Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2.

Significance after Mitigation: The impact would be significant and unavoidable. No additional feasible mitigation measures are available to reduce impacts.

Criterion e)

Impact 3.2-10: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a new source of substantial shadow, light or glare, which would result in a significant cumulative impact to views in the area. (*Less-than-Significant Cumulative Impact*)

Ongoing shadow, light, and glare impacts of past Countywide projects are summarized in the environmental setting. Closely related present and reasonably foreseeable future projects would be developed in accordance with requirements of the housing and other elements of the General Plan, various area plans, the Renewable Energy, Hillside Management, and other County ordinances, and with the mitigation measures or conditions of approval imposed as part of project-specific CEQA and permitting processes. The incremental contribution of projects facilitated by the Draft 2045 CAP could result in a cumulative impact related to shadow, light, or glare if one or more of the projects were to be located near other closely related past, present, and reasonably foreseeable future cumulative projects that are significant sources of light or glare.

The discussion under Impact 3.2-5 explains that photovoltaic solar panels can result in reflection and glare, although rooftop solar would generally be unnoticeable from ground level. Although codes limit the height of the rooftop panels, panels could be installed on sloped roofs, potentially making them visible to receptors sensitive to glare. However, it is also noted that photovoltaic panels are designed and constructed to absorb as much light as possible for energy generation, as opposed to reflecting the sunlight back into the atmosphere (NREL 2018). In addition to the use of minimally reflective panels, large utility-scale projects would be required to comply with permit conditions and would be subject to site-specific, project-specific environmental review, as also explained under Impact 3.2-5. The impacts related to glare for rooftop and large utility-scale

projects associated with the Draft 2045 CAP would be less than significant. As noted above, closely related present and reasonably foreseeable future projects would be subject to the same or similar permit requirements and approval conditions. Based on the design and construction of photovoltaic panels, coupled with regulatory requirements, the Project's contribution to cumulative impacts would be less than cumulatively considerable, and therefore less than significant.

Pre-mitigation, the cumulative impact attributable to nighttime lighting could be significant, and the Project's contribution to this impact could be cumulatively considerable. However, the implementation of Mitigation Measure 3.2-3, *Reduce Light and Glare Impacts*, would ensure that nighttime lighting associated with projects facilitated by the Draft 2045 CAP would not substantially intrude on daytime or nighttime views in the area because its provisions would substantially confine generated light to within project boundaries. Accordingly, with the implementation of Mitigation Measure 3.2-3, the Project's contribution to cumulative impacts would be less than cumulatively considerable, and therefore less than significant.

Mitigation: Implement Mitigation Measure 3.2-3.

Significance after Mitigation: Not cumulatively considerable, and therefore less than significant.

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3.3 Agriculture and Forestry Resources

This section identifies and evaluates agriculture and forestry resources issues to determine whether the Project would result in a significant impact related to the loss or conversion of agricultural resources (e.g., protected farmland, agricultural zoning, a designated Agricultural Resource Area, or Williamson Act contract) or forestry resources (e.g., forest land, timberland, or Timberland Production zoning). This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to agriculture and forestry resources request consideration of impacts from anticipated agricultural land and open space conversion due to future renewable energy projects facilitated by Draft 2045 CAP measures and actions.

3.3.1 Setting

3.3.1.1 Study Area

The study area for this analysis of impacts on agriculture and forestry resources consists of the area where the 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that composes the unincorporated area of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

Population growth and accompanying development in Los Angeles County has resulted in the conversion of agricultural land to nonagricultural uses. This process threatens agricultural land and has led to land use conflicts between existing farms and new residential developments that are being developed adjacent to existing agricultural areas. The remaining agricultural land is considered an important nonrenewable resource. Los Angeles County includes a relatively small quantity of land that is designated pursuant to the Farmland Mapping and Monitoring Program (FMMP), meaning that it meets one of the designations described in this section and therefore is “Important Farmland.” Approximately 90 percent of Los Angeles County’s Important Farmland is located in the Antelope Valley; the remainder is located in the Santa Clarita Valley, the Santa Monica Mountains, and the San Fernando Valley.

The study area for this analysis of impacts on agriculture and forestry resources includes Prime Farmland, Unique Farmland, and Farmland of Statewide Importance as designated pursuant to the FMMP, as well as forestland within the County’s unincorporated areas that is subject to the County’s land use authority.

3.3.1.2 Environmental Setting

Agricultural Land Use

A variety of programs administered by the State of California and the County classify and help protect agricultural lands in the County. The FMMP, administered by the state and described in Section 3.3.1.3, *Regulatory Setting*, identifies important areas of farmland based on soil types and land use history. Agriculture zoning in the County identifies areas under agricultural use or areas that could be developed with agricultural use and sets forth development regulations and allowable uses for areas in agricultural zones. The County also designates agricultural areas where agriculture is encouraged and/or preserved by policies, development guidelines, and regulations.

Farmland Mapping and Monitoring Program-designated Farmland

As part of the FMMP, the California Department of Conservation produces Important Farmland maps that assess the locations, quality, and quantity of agricultural lands in California on a county-by-county basis, as well as the conversion of these lands over time. The classification of Important Farmlands is based on land use and soil. Agricultural land is rated according to the soil quality and irrigation status, with the best-quality land called Prime Farmland. Maps are updated every two years by the U.S. Natural Resources Conservation Service (NRCS), part of the U.S. Department of Agriculture; current land use information is gathered from aerial photographs, a computer mapping system, public review, and field reconnaissance.

The FMMP maps approximately 47.9 million acres of land in 49 of California’s 58 counties. FMMP designations do not affect local land use decisions; rather, they are identification tools that local governments can use for policy purposes.

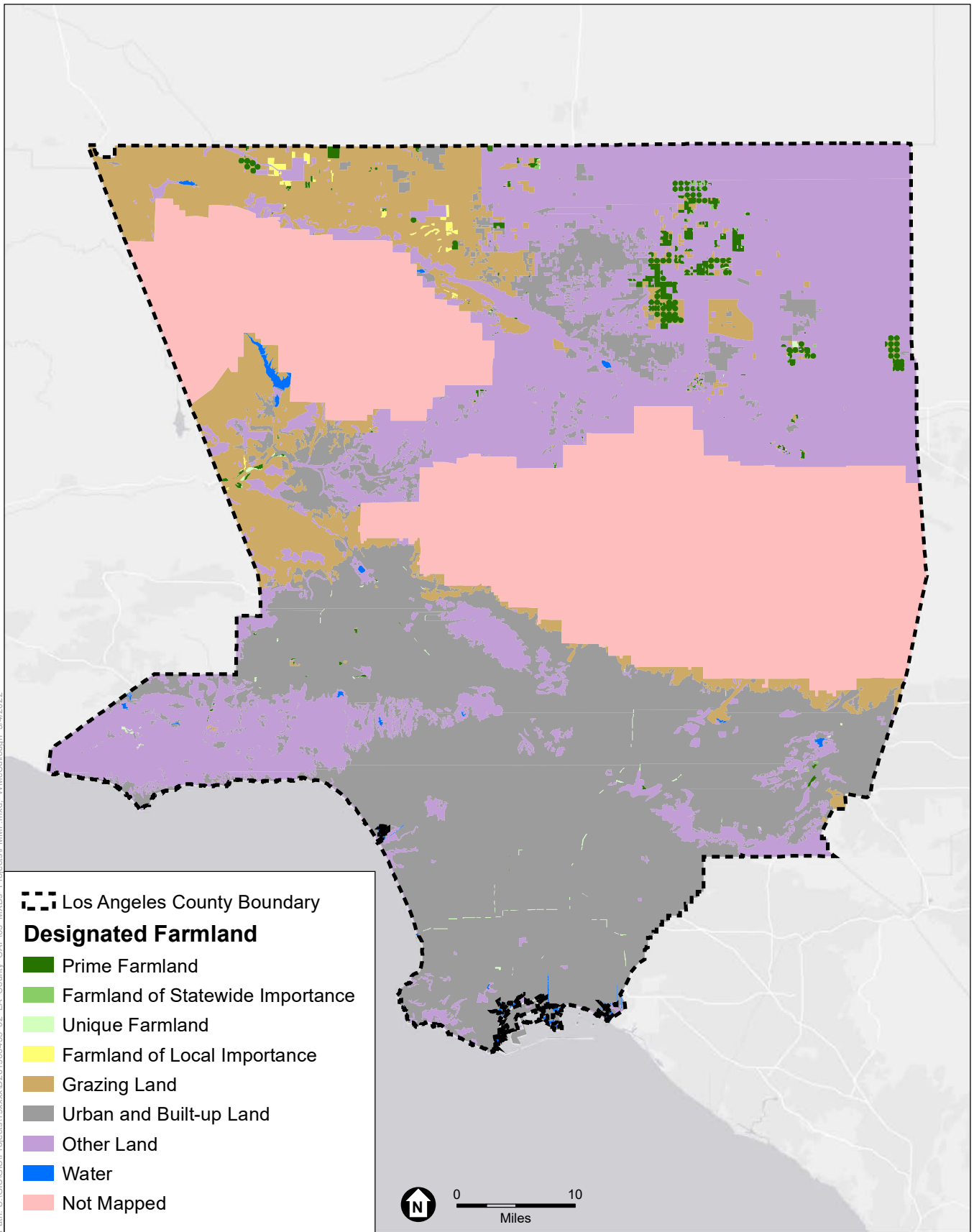
The acreages listed in this section represent data from the 2018 FMMP maps for Los Angeles County and include mapped Farmland in the unincorporated areas only.¹ Farmland as mapped by the FMMP can be found in roughly half of the County, excluding national forest land and the Los Angeles Basin, the San Gabriel Valley, and most of the eastern San Fernando Valley, which are categorized as Urban and Built-Up Land. See **Figure 3.3-1, *Farmland Mapping and Monitoring Program–Designated Farmland in Los Angeles County***, which shows the locations of designated Farmland as well as urban and built-up land, other land, water, and national forest land (which is labeled as “not mapped” for purposes of the California Department of Conservation’s Important Farmland maps). The FMMP maps identify the following Farmland types:

- (1) **Prime Farmland:** Prime Farmland has the most favorable combination of physical and chemical features, enabling it to sustain long-term production of agricultural crops. This land possesses the soil quality, growing season, and moisture supply needed to produce sustained high yields. To qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles before NRCS mapping. The unincorporated County contains 16,969 acres of designated Prime Farmland (DOC 2019), which equates to approximately 1.00 percent of the unincorporated County’s total acreage and represents a reduction of 7,405 acres since the 2010 FMMP maps (County Planning 2014).

¹ Three other FMMP designations exist but are not used in Los Angeles County: Urban and Built-Up Land, Other Land, and Land Committed to Non-agricultural Use.

- (2) **Farmland of Statewide Importance:** Farmland of Statewide Importance is similar to Prime Farmland, but it possesses minor shortcomings, such as greater slopes and/or less ability to store moisture. To qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles before NRCS mapping. The unincorporated County contains approximately 690 acres of designated Farmland of Statewide Importance, which equates to about 0.04 percent of the unincorporated County's total acreage and represents a reduction of 240 acres since the 2010 FMMP maps (County Planning 2014).
- (3) **Unique Farmland:** Unique Farmland is of lesser-quality soils and is used to produce the state's leading agricultural crops. Unique Farmland does not meet the previously stated criteria for Prime Farmland or Farmland of Statewide Importance, but it consists of areas that have been used for the production of specific crops with high economic value during the two update cycles before the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained, high-quality crops and/or high yields of a specific crop when treated and managed according to current farming methods. This land is usually irrigated, but it may include non-irrigated orchards or vineyards, as found in some climatic zones in California. Land must have been cropped sometime during the four years before the mapping date. The unincorporated County contains approximately 865 acres designated as Unique Farmland (DOC 2019), which is 0.05 percent of the unincorporated County's total acreage and represents a reduction of 66 acres since the 2010 FMMP maps (County Planning 2014).
- (4) **Farmland of Local Importance:** Farmland of Local Importance is important to the local agricultural economy, as determined in Los Angeles County by the County Board of Supervisors and a local advisory committee. The County defines Farmland of Local Importance as lands that would meet the criteria for Prime Farmland or Farmland of Statewide Importance but are not irrigated. Approximately 2,739 acres of the unincorporated County are designated as Farmland of Local Importance (DOC 2019), which is 0.16 percent of the unincorporated County's total acreage and represents a reduction of 4,114 acres since the 2010 FMMP maps (County Planning 2014).
- (5) **Grazing Land:** Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. Approximately 216,378 acres of the unincorporated County is designated as Grazing Land (DOC 2019), which is 12.76 percent of the unincorporated County's total acreage and represents an increase of 11,185 acres since the 2010 FMMP maps (County Planning 2014).

The quality of farmland in the County has shifted in the past several decades. For example, in the Antelope Valley, the highest value categories (Prime Farmland and Farmland of State Importance) have declined in size, while the lowest value categories (Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, and Other Land) have expanded (Farr 2021).



SOURCE: CDOC, 2018

Los Angeles County 2045 Climate Action Plan (2045 CAP)



Figure 3.3-1
 Farmland Mapping and Monitoring
 Program-Designated Farmland in Los Angeles County

Agricultural Zoning

The County has two agricultural zones: Light Agricultural (A-1) and Heavy Agricultural (A-2). Both agricultural zones allow for variety of uses. The A-1 zone allows the development of single-family residences and small group homes, community gardens, livestock, and agricultural uses, including the raising of cattle, horses, sheep, goats, poultry, birds, and earthworms.

The A-2 zone allows for a wider variety of agricultural and nonagricultural uses than the A-1 zone. Fruit and vegetable packing plants, dairies, and manure processing facilities are examples of heavier land uses that are allowed in A-2 but not in A-1. With a conditional use permit, the types of uses for agriculturally zoned land broaden, and can include uses such as airports, universities, and golf courses.

Electricity generation plants, including utility-scale, ground-mounted solar projects, are an allowed use in the A-2 zone with a conditional use permit outside Significant Ecological Areas and Economic Opportunity Areas (each of which is described in Section 3.3.1.3, *Regulatory Setting*). For example, an analysis done in 2021 indicates that of the 14 solar projects approved in the Antelope Valley as of that year, 12 are located in the A-2 zone; of these 12, three contain land identified as Prime Farmland. However, although solar projects in the Antelope Valley have been approved on agriculturally zoned land, they have mostly been sited on vacant, undeveloped land, not on land that has historically been used for agricultural production. Only one of the 14 approved projects was sited on what was previously contained productive farmland (Farr 2021).

As shown in **Table 3.3-1, *Distribution of Agricultural Zones by Planning Area***, most (about 80 percent) of the agriculturally zoned lands are found in the Antelope Valley. The Santa Clarita Valley Planning Area is home to another 11 percent, and the San Fernando Valley Planning Area to about 3.5 percent. Other planning areas in the County each represent less than 3 percent (and most less than 1 percent) of the total agricultural zoning in the County (Farr 2021, Table 7).

In the Antelope Valley, existing uses of lands in the A-1 zone consist primarily of residential uses (64.4 percent), specifically mobile homes (37.3 percent) and single-family homes (26.4 percent). Irrigated farms make up 24.1 percent of the A-1 zone, specifically the Irrigated Farm category for “Desert” (22.7 percent). Government parcels make up 26 percent of the A-1 zone. By comparison, lands in the A-2 zone in the Antelope Valley consist primarily of Irrigated Farm (75.2 percent), particularly land that falls under the category of Desert (69.5 percent), with residential land uses (19 percent) and government parcels (1.9 percent) making up the rest. Commercial, industrial, institutional, miscellaneous, and recreational physical land use categories each make up less than 1 percent of the A-1 and A-2 zones within the Antelope Valley (Farr 2021).

**TABLE 3.3-1
 DISTRIBUTION OF AGRICULTURAL ZONES BY PLANNING AREA**

| Planning Area | Zone A-1 Light Agricultural | Zone A-2 Heavy Agricultural | Zones A-1 & A-2 All Agricultural |
|---------------------------------------|--|--|---|
| Antelope Valley Planning Area | 50.01% | 84.34% | 79.57% |
| Coastal Islands Planning Area | 0.00% | 0.00% | 0.00% |
| East San Gabriel Valley Planning Area | 13.72% | 0.78% | 2.58% |
| Gateway Planning Area | 1.48% | 0.47% | 0.61% |
| Metro Planning Area | 0.29% | 0.00% | 0.04% |
| San Fernando Valley Planning Area | 1.75% | 3.73% | 3.46% |
| Santa Clarita Valley Planning Area | 17.57% | 10.35% | 11.35% |
| Santa Monica Mountains Planning Area | 13.32% | 0.16% | 1.99% |
| South Bay Planning Area | 0.46% | 0.00% | 0.06% |
| West San Gabriel Valley Planning Area | 1.04% | 0.00% | 0.15% |
| Westside Planning Area | 0.35% | 0.17% | 0.19% |
| TOTAL | 100.00% | 100.00% | 100.00% |

SOURCE: Farr 2021: Table 7

Agricultural Resource Areas

Agricultural Resource Areas (ARAs) are identified in the General Plan and the Antelope Valley Area Plan. A key purpose of this designation is to encourage preservation and sustainable uses of agricultural land, agricultural activities, and compatible uses within these areas. The following land types are ARAs:

- Prime Farmland
- Farmland of Statewide Importance
- Farmland of Local Importance
- Unique Farmland
- Lands that have received permits from the County Agricultural Commissioner/Weights and Measures

The ARAs are within the Antelope Valley Planning Area and Santa Clarita Valley Planning Area. The following land uses and County land use designations are not considered for the ARA designation and are not part of any existing ARAs:

- Significant Ecological Areas
- Approved specific plans
- Approved large-scale renewable energy facilities
- Land outside of the Santa Clarita Valley and Antelope Valley planning areas
- Lands designated as Public and Semi-Public land uses

Williamson Act Contract Lands

The purpose of a Williamson Act contract is to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The only Williamson Act contract lands in Los Angeles County are located on Santa Catalina Island; those lands are held by the Catalina Island Conservancy and set aside for open space and recreational purposes.

Forest Resources

Forest land is defined in the California Public Resources Code (Section 12220[g]) as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetic, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. *Timberland* is considered land that is available for and capable of growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees (Public Resources Code Section 4526).

Within the unincorporated areas of the County, Angeles National Forest, coupled with a small portion of Los Padres National Forest, encompasses 650,000 acres. Angeles National Forest extends along the San Gabriel Mountains and is divided into two sections totaling 1,018 square miles, which equates to approximately 25 percent of the County's land area. The U.S. Forest Service is responsible for managing public forest lands. However, nearly 40,000 acres of the national forests are privately owned. These privately owned areas are commonly referred to as *in-holdings*, and the County retains responsibility for their land use regulation. The County also includes small areas of forest outside of the National Forests. These consist primarily of smaller areas in the Santa Monica Mountains, the Sierra Pelona, and areas of the San Gabriel Mountains adjacent to Angeles National Forest. Forest lands within the County are generally zoned Open Space (O-S) and Watershed (W) zones.

The majority of Angeles National Forest is composed of chaparral, rather than forest. The forests in the County are limited and generally consist of small stands of trees growing in riparian areas and in the higher elevations of the San Gabriel Mountains. Because of the limited amount of forest resources, there is no timberland in the County.

3.3.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Farmland Protection Policy Act

The U.S. Department of Agriculture administers the Farmland Protection Policy Act of 1981. The act discourages federal activities that would convert farmland to nonagricultural purposes and assures to the extent possible that federal programs are administered to be compatible with state, local government, and private programs and policies to protect farmland. For purposes of the act, *farmland* includes land defined as prime, unique, or farmlands of statewide or local importance as well as forest land, pastureland, or cropland; it does not include water or urban built-up land. Projects are subject to Farmland Protection Policy Act requirements if they could irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency (NRCS 2022).

Federal agency representatives of projects that have the potential to convert farmland to non-farm use coordinate with their local office of the NRCS or U.S. Department of Agriculture Service Center. The NRCS uses a land evaluation and site assessment (LESA) system to establish a farmland conversion impact rating score on proposed sites of federally funded and assisted projects. The resulting score is used as an indicator for the project sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the recommended allowable level.

Agricultural Improvement Act of 2018

The Agricultural Improvement Act of 2018 (sometimes called the “2018 Farm Bill”) was approved in 2018 and remains in effect through 2023. It builds upon and continues to implement many of the crucial programs that serve agricultural producers. The U.S. Department of Agriculture is charged with implementing this law, which reauthorized previous programs to serve producers now while they seek public input for future programs. The 2018 Farm Bill continued funding for major programs but did include some changes to NRCS programs, such as expanding support to producers who address significant natural resources concerns by adopting conservation practices and activities. All major conservation programs are continued, although some have been modified (USDA 2022).

State Laws, Regulations, and Policies

California Public Resources Code

Section 4526 of the California Public Resources Code defines *timberland* as land (other than land owned by the federal government and land designated by the county board of supervisors as experimental forest land) that is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species are determined by the county board of supervisors on a district basis after consultation with district committees and others.

According to Section 12220(g) of the California Public Resources Code, *forest land* refers to “land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.” California Civil Code Section 3482.5 (Right to Farm Act)

The Right to Farm Act is designed to protect commercial agricultural operations from nuisance complaints that may arise when an agricultural operation is conducting business in a “manner consistent with proper and accepted customs.” The law specifies that established operations that have been in business for three or more years that were not nuisances at the time they began shall not be considered a nuisance as a result of a new land use.

Farmland Mapping and Monitoring Program

As noted above, the FMMP produces maps and statistical data used for analyzing impacts on California’s agricultural resources. For the purposes of this environmental analysis, the term *Farmland* refers to the FMMP map categories *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance* (hereafter collectively referred to as “Farmland”). Generally, any conversion of land from one of these categories to a lesser quality category or a nonagricultural

use would be considered an adverse impact. These map categories are defined in Section 3.3.1.2, *Environmental Setting*.

California Land Conservation Act (Williamson Act)

The Williamson Act of 1965 provides an incentive to retain prime agricultural land and open space in agricultural use, thereby slowing its conversion to urban and suburban development. The program requires a 10-year contract between the county where the subject land is located and the landowner. While subject to contract, the land is taxed on the basis of its agricultural use rather than its market value. The land becomes subject to certain enforceable restrictions, and certain conditions need to be met prior to approval of an agreement. The goal of the Williamson Act is to protect agriculture and open space. The only Williamson Act contract lands in Los Angeles County are located on Santa Catalina Island and are preserved for open space and recreational purposes.

California Government Code

California Government Code Section 51104(g) defines a *timberland production zone* as an area that has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. The County Code does not identify timberland production zones within the unincorporated portion of the County.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The General Plan includes an implementing program to adopt an Agricultural Resources Areas Ordinance, the intent of which would be to encourage the retention and sustainable use of agricultural land for agricultural uses. Relevant agricultural resources policies set forth in the General Plan include protection of ARAs and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance from encroaching development. The Conservation and Natural Resources Element of the General Plan encourages the preservation and sustainable utilization of agricultural land, agricultural activities, and compatible uses within these areas (County Planning 2015a). The relevant ARA-related policies set forth in the General Plan include protecting ARAs from encroaching development, discouraging incompatible land uses in areas adjacent to or within these farmland areas, and encouraging agricultural activity within ARAs (Policies C/NR 8.1 through 8.3). Additional policies support sustainable agricultural practices (Policies C/NR 9.1 through 9.5).

Antelope Valley Area Plan

The 2015 Antelope Valley Area Plan was adopted by the County Board of Supervisors on June 16, 2015 (County Planning 2015b). This plan sets forth specific goals, policies, land use and zoning maps, and other planning instruments to guide future development and preservation activities in the Antelope Valley Planning Area. The Conservation and Open Space Element of this plan contains policies related to agricultural resources. Relevant policies include limiting the amount of potential residential development in ARAs (shown on Map 4.3 of the Antelope Valley Area Plan) through appropriate land use designations with low densities; limiting incompatible uses in ARAs; requiring buffering and appropriate development standards where nonagricultural uses in ARAs are necessary to meet regional or community needs; supporting innovative agricultural business

practices such as agricultural tourism by streamlining regulations; and supporting the use of alternative and renewable energy systems in conjunction with agricultural activities (County Planning 2015b). The Antelope Valley Area Plan also contains the ARA designations for the Antelope Valley.

Los Angeles County Code

The County Code Title 22, Chapter 22.16 regulates uses within the County’s agricultural zones, which include A-1 and A-2, and the forest land zones, which include W (Watershed) and O-S (Open Space).

The purpose of the W zone, as defined in the County Code, is to provide for conservation of water and other natural resources within a watershed area and to protect areas subject to fire, flood, erosion, or similar hazards. This zone allows for limited recreational development of the land and necessary public facilities. The purpose of the O-S zone is to provide for the preservation, maintenance, and enhancement of the recreational, natural, and environmental resources of the County as defined in the General Plan.

Chapter 22.16 of the County Code contains a list of allowable uses for each of these zones, allowable uses with director’s review and approval, and allowable uses with the appropriate permits, as well as a list of development standards (County Code, Chapter 22.16).

Only some renewable energy uses are allowed within agricultural zones. Utility-scale (i.e., primarily for offsite use and generally greater than 50 kW), ground-mounted solar energy facilities are allowed in the A-2 zone with a conditional use permit, but are not allowed in the A-1 zone. Structure-mounted (e.g., rooftop) utility-scale and structure- or ground-mounted small-scale (i.e., primarily for on-site use and generally smaller than 50 kW) solar is permitted in both zones. Small-scale wind energy systems are allowed with a minor conditional use permit in both zones. The categories of “energy generating or storage devices, including but not limited to solar, wind, or geothermal devices” and utility-scale wind energy facilities are not allowed in either use (LA County Zoning Code Section 22.16.030). The County adopted a Renewable Energy Ordinance in 2016, establishing the land use type and development standards. The ordinance prohibits ground-mounted utility-scale energy facilities in Significant Ecological Areas and Economic Opportunity Areas.

3.3.2 Impact Analysis

3.3.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact on agriculture and forestry resources if it would:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use;

- b) Conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract;
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104[g]);
- d) Result in the loss of forest land or conversion of forest land to non-forest use; or
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use.

3.3.2.2 Methodology

The analysis of agriculture and forestry resources in this section is based on a review of the project description and available literature from state and local agencies. The analysis focuses on the compatibility of the Draft 2045 CAP with existing agricultural uses and policies in the County and evaluating whether projects facilitated by Draft 2045 CAP measures and actions would result in physical impacts on agriculture and forestry resources. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.3.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of Los Angeles County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of agriculture and forestry-related impacts. These and other relevant measures and actions include those actions associated with Strategy 9, Conserve and Connect Wildlands and Working Lands, and Strategy 10, Sequester Carbon and Implement Sustainable Agriculture. These measures and actions could result in a beneficial effect on agriculture and forestry resources.

By contrast, renewable energy and related infrastructure projects facilitated by some of the Draft 2045 CAP measures and actions could result in adverse impacts on agriculture and forestry resources via conversion. These include projects facilitated by Draft 2045 CAP measures and actions involving: (1) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) the electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) the electrification of buildings (Strategy 5, Decarbonize Buildings).

The timeframe during which the implementation of these actions and measures would affect agriculture and forestry resources would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually impacts one or more of these resources. The impact would occur immediately and, once it occurs, could be long-term. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will be developing an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Specific agriculture and forestry impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

Criterion a) Whether the Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.

Impact 3.3-1: Projects facilitated by the Draft 2045 CAP would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use. (Significant and Unavoidable)

Projects facilitated by Draft 2045 CAP Strategy 9, Conserve and Connect Wildlands and Working Lands, and Strategy 10, Sequester Carbon and Implement Sustainable Agriculture, could facilitate projects that conserve working lands (Measure A1) or implement regenerative agricultural practices (Measure A2), which would result in a beneficial effect on Farmland. For example, projects facilitated by Action A2.1 would create fallow and field resting incentives to reduce bare-fallow land by adding cover crops and promoting crop rotation for active agricultural sites to improve soil quality and limit risks of nutrient erosion, pollutant runoff, and yield reduction. Action A2.2 would provide compost and/or organic or non-synthetic fertilizer to farmers free of charge or at a discounted rate. In addition to improving carbon removal on sites that benefit from these actions, the results of the actions would improve the long-term viability and productivity of agricultural lands in the County, making them less susceptible to conversion due to economic and/or environmental pressures.

However, depending on the location, projects facilitated by GHG emissions reduction measures and actions in the Draft 2045 CAP that involve ground disturbance could result in the conversion of farmland to nonagricultural use. For most types of projects that may be proposed in furtherance of the Draft 2045 CAP's measures and actions, construction and improvements are anticipated to occur primarily in developed areas such as parking lots, existing structures, and urban areas near public transportation. However, other types of projects facilitated by Draft 2045 CAP measures and actions, such as utility-scale energy projects (solar energy generation, battery storage, substations, and related transmission infrastructure), could convert Farmland to nonagricultural use in the Antelope Valley, the Santa Clarita Valley, the Santa Monica Mountains, and the San Fernando Valley where most of the Farmland in the County has been identified. See Figure 3.3-1, which shows the locations of state-identified Farmland.

Elements of a utility-scale, structure- or ground-mounted solar PV facility that could be facilitated by the Draft 2045 CAP measures and actions may include, but would not be limited to, solar collector arrays, mounting posts, on-site substations, electrical infrastructure, transmission lines, operations and maintenance buildings, battery-storage facilities, and other accessory structures. Utility-scale solar facilities could require development on hundreds of acres; therefore, if developed in agricultural areas of the Antelope Valley, these developments could have a substantial effect on Farmland. Utility-owned substation upgrades to increase load capacity would most likely be contained within the existing substation fence line and would be regulated by the California Public Utilities Commission if owned by an investor-owned utility such as Southern

California Edison. Upgrades to existing transmission lines may also be required at specific tower locations, which could permanently disturb Farmland in the area where the work would occur.

Should future utility-scale renewable energy facilities be proposed on Farmland that is used for the production of agricultural products (i.e., rather than used for residential, governmental, or other allowable nonagricultural uses of agricultural zoned lands), they could convert an agricultural use to a nonagricultural use. This impact would be significant.

In project-specific contexts for utility-scale, ground-mounted renewable energy facilities, the County has required mitigation of the net acreage of lost Farmland at a 1:1 ratio through various measures: purchase of agricultural conservation easements; purchase of credits from an established agricultural farmland mitigation bank; contribution of agricultural land or equivalent funding to an organization that provides for the preservation of Farmland in California; or participation in an agricultural land mitigation program adopted by the County. However, efforts to preserve offsite farmland through agricultural or conservation easements, or via mitigation banks, reduce conversion impacts but do not offset the reduction in total mapped Farmland resulting from the implementation of a project. Therefore, the impact would remain significant. Nonetheless, mitigation actions described below could be taken to avoid or reduce the impacts of the conversion of mapped Farmland that actually is in physical agricultural use. The mitigation actions would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development. To reduce the impacts of converting Farmland in physical use for agriculture to nonagricultural uses when a utility-scale solar development is proposed on actively farmed land, the County shall require renewable energy project applicants to demonstrate their consideration of alternate sites consisting of formerly developed and/or contaminated lands such as landfills and mine sites located within one mile of the proposed project site when such development is consistent with General Plan and zoning requirements.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1 would lessen the impact of the conversion of mapped Farmland to nonagricultural uses by avoiding the development of actively farmed lands for purposes of utility-scale solar and energy storage when there is an otherwise suitable site available. However, this measure would not ensure that such conversion could be avoided. Accordingly, with implementation of Mitigation Measure 3.3-1, Impact 3.3-1 would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b) Whether the Project would conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract.

Impact 3.3-2: Projects facilitated by the Draft 2045 CAP would conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. (Significant and Unavoidable)

Agricultural Resource Areas include the following land types: Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Unique Farmland (which fall within

the definition of Farmland, as analyzed above), and lands that have received permits from the County Agricultural Commissioner/Weights and Measures.

The Draft 2045 CAP is a policy document intended to reduce GHG emissions throughout the unincorporated County. The Draft 2045 CAP would not propose changes to the General Plan's land use designations that would directly require changes to zoning, nor does it include specific projects that would conflict with existing zoning.

Further, to help preserve existing agricultural lands, the Draft 2045 CAP includes Measure A1, Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands. Conserving and restoring forests, carbon-sequestering wildlands, and working lands keeps carbon in the ground and provides a multitude of benefits, including maintaining biodiversity in Significant Ecological Areas and preserving the character of the unincorporated County's rural areas. Draft 2045 CAP Action A1.1 calls for the creation of open space easements to conserve natural habitats for carbon sequestration.

Nonetheless, projects facilitated by Draft 2045 CAP measures and actions (especially if approved in the Antelope Valley, the Santa Clarita Valley, the Santa Monica Mountains, or the San Fernando Valley) could conflict with a designated Agricultural Resource Area. The potential for such impacts would be reduced by compliance with the requirements of Title 22 (Zoning Code) Chapter 22.16 (Agricultural, Open Space, Resort and Recreation, and Watershed Zones), which establishes the Light Agricultural Zone (A-1) and Heavy Agricultural Zone (A-2). These zones allow for a comprehensive range of agricultural and residential uses. As described in the context of criterion a), ground-mounted, utility-scale solar and other renewable energy projects facilitated by Draft 2045 CAP measures and actions could be approved on lands designated as Farmland, and so also in an Agricultural Resource Area. The development of a wastewater treatment plant, organic waste processing facility, or energy-related project in a designated Agricultural Resource Area would be a significant impact. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this significant impact, but it would not reduce the impact to a less-than-significant level.

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. The only Williamson Act contracts in effect in Los Angeles County are for land on Santa Catalina Island (County Planning 2015a), which would not be affected by projects facilitated by the Draft 2045 CAP. Therefore, the Draft 2045 CAP would have no impact related to Williamson Act contracts.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar Development, would lessen impacts caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no such conflict would occur. Accordingly, with implementation of Mitigation Measure 3.3-1, Impact 3.3-2 would be significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c) Whether the Project would conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104[g]).

Impact 3.3-3: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104[g]). (*Less-than-Significant Impact*)

There is no timberland in the unincorporated areas; therefore, neither the Draft 2045 CAP nor projects facilitated by the Draft 2045 CAP measures and actions would result in an adverse impact on timberland.

Regarding forestland, Draft 2045 CAP measures and actions do not propose changes to the General Plan’s land use designations. The Draft 2045 CAP is a policy document that does not conflict with existing zoning for, or cause rezoning of, forest land. On the contrary, projects facilitated by Strategies 9 and 10 of the Draft 2045 CAP could result in a beneficial effect because they would conserve forest lands (Measure A1), conserve and restore natural forest lands through land acquisitions and conservation easements (Action A1.1), and create and implement a community-informed Urban Forest Management Plan that incorporates equitable urban forest practices (Action A3.1).

Nonetheless, projects facilitated by other Draft 2045 CAP measures and actions could conflict with existing zoning for, or cause rezoning of, forest land if they were to be approved in such areas. *Forest land* is defined as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits” (Public Resources Code Section 12220[g]).

Angeles National Forest and Los Padres National Forest encompass approximately 650,000 acres of land within unincorporated Los Angeles County. These forests occupy a large portion of Los Angeles County and support oak woodlands, black walnut, grey pine, and other native tree species (County Planning 2014; California Wilderness Coalition 2020). For example, 11 of California’s 20 species of native oaks are found in Los Padres National Forest, including blue oak, valley oak, and California black oak. California shrub oak species, including leather oak and Nuttall’s (“coastal”) scrub oak, are also found in Los Padres National Forest. (Los Padres ForestWatch 2013).

However, forest land would not be suitable for many of the types of projects that would be facilitated by Draft 2045 CAP measures and actions. For example, generating solar energy requires access to sunlight. Forested areas do not provide that resource and would not be deforested to serve a solar energy generation use (which itself would run counter to another implementing action of the Draft 2045 CAP).

Additionally, private inholdings within the national forests have many owners, and these landowners do not necessarily own large contiguous parcels that would be conducive to development of a utility-scale, ground-mounted solar energy generation project. Except for the private inholdings, the County has no land use authority to approve development proposed in national forests like Angeles National Forest and Los Padres National Forest. Instead, the U.S. Forest Service, which provides land use oversight in those locations, may authorize uses in national forests that benefit the general public and protect public and natural resources values. The construction of new private residences on national forest lands is prohibited by the Forest Reserve Act of 1891, and U.S. Forest Service land usually is not made available if the overall needs of an individual project proponent or business can be met on nonfederal lands (U.S. Forest Service 2013). The County is not aware of any applications to develop future utility-scale renewable energy facility projects on Angeles National Forest or Los Padres National Forest lands, and determining whether the U.S. Forest Service would allow such development in the future would be speculative.

For these reasons, implementation of the Draft 2045 CAP measures and actions would not conflict with existing zoning of forest land, and this impact would be less than significant.

Mitigation: None required.

Criterion d) Whether the Project would result in the loss of forest land or conversion of forest land to non-forest use.

Impact 3.3-4: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use. (*Less-than-Significant Impact*)

As discussed in Impact 3.3-3, the Draft 2045 CAP is a policy document that would not directly result in the loss of forest land or conversion of forest land to non-forest use. On the contrary, projects facilitated by Strategies 9 and 10 of the Draft 2045 CAP could result in a beneficial effect because they would conserve forest lands (Measure A1), conserve and restore natural forest lands through land acquisitions and conservation easements (Action A1.1) and create and implement a community-informed urban forest management plan that would incorporate equitable urban forest practices (Action A3.1).

Nonetheless, Draft 2045 CAP measures and actions could facilitate projects that could result in the loss of forest land or the conversion of forest land to non-forest use. However, as discussed in the context of Impact 3.3-3 above, the risk of this occurrence is low. All of the forest land located in unincorporated areas (i.e., in Angeles National Forest and Los Padres National Forest), except for approximately 40,000 acres of private inholdings, is outside of the County's land use jurisdiction and would not likely be developed in the future with projects facilitated by Draft 2045 CAP measures and actions. Further, even if projects facilitated by the Draft 2045 CAP were approved on forest lands, the relatively minor acreage (approximately 40,000 acres) within the County's land use jurisdiction would be protected by the facilitated projects' consistency with the General Plan and compliance with applicable provisions of the zoning code summarized in Section 3.3.1.3, *Regulatory Setting*. As a result, this impact would be less than significant.

Mitigation: None required.

Criterion e) Whether the Project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use.

Impact 3.3-5: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use. (*Significant and Unavoidable*)

As discussed in the context of Impacts 3.3-1 and 3.3-2, some projects facilitated by the Draft 2045 CAP could result in a beneficial effect on Farmland, while other projects (e.g., wastewater treatment plants, organic waste processing facilities, or energy-related projects, if sited on Farmland) would cause a significant impact related to Farmland conversion. Such projects could cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use if, for example, they were to divide productive agricultural lands into less productive units for reasons of access, irrigation, or scale of production. If this land conversion were to occur, the impact would be significant. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this significant impact, but would not reduce it to a less-than-significant level.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar Development, would lessen impacts related to the conversion of Farmland to utility-scale solar development (a nonagricultural use), but would not ensure that land in agricultural use would not be converted. Accordingly, with the implementation of Mitigation Measure 3.3-1, Impact 3.3-5 would be significant and unavoidable. No additional feasible mitigation measures are available.

Impact 3.3-6: Projects facilitated by the Draft 2045 CAP would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. (*Less-than-Significant Impact*)

As discussed in the context of Impacts 3.3-3 and 3.3-4, projects facilitated by the Draft 2045 CAP would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for the implementation of many of the types of projects that would be facilitated by Draft 2045 CAP measures and actions. Even if projects facilitated by the Draft 2045 CAP were approved on forest lands, the relatively minor acreage (approximately 40,000 acres) within the County's land use jurisdiction would be protected by the facilitated projects' consistency with the General Plan and compliance with applicable provisions of the zoning code summarized in Section 3.3.1.3, *Regulatory Setting*. The resulting impacts would be less than significant.

Mitigation: None required.

3.3.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on agriculture and forestry resources, the geographic area of consideration includes unincorporated areas of the County that are designated as Farmland pursuant to the FMMP, land that is subject to a Williamson Act contract, and forest land in the unincorporated areas. Impacts could result at various locations in this area from the initiation of on-the-ground work in furtherance of a project facilitated by Draft 2045 CAP measures and actions until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.3-7: Projects facilitated by the Draft 2045 CAP would result in a significant cumulative impact related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use. (*Significant and Unavoidable*)

Projects facilitated by Draft 2045 CAP measures and actions, in combination with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects (including projects proceeding consistent with existing General Plan and zoning requirements), would cause or contribute to a significant cumulative impact due to the conversion of Farmland, including Farmland in actual physical agricultural use, if they would occur in previously undeveloped areas. The Project's contribution to this impact would be cumulatively considerable. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this impact.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar Development, would lessen the Project's contribution to the significant cumulative impact. However, implementation of this measure would not ensure that the conversion of mapped Farmland could be avoided and would have no impact on the conversion of mapped Farmland for residential or other uses of that land consistent with General Plan and zoning provisions. Accordingly, even with implementation of Mitigation Measure 3.3-1, the Project's incremental contribution to the cumulative impact would be cumulatively considerable, and therefore, significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.3-8: Projects facilitated by the Draft 2045 CAP would result in a significant cumulative impact related to conflicts with existing zoning for agricultural use, or with a designated Agricultural Resource Area. (*Significant and Unavoidable*)

As described in the context of Impact 3.3-2, the only Williamson Act contract in Los Angeles County is on Santa Catalina Island and would not be affected by the implementation of projects facilitated by the Draft 2045 CAP.

Regarding designated Agricultural Resource Areas, the Draft 2045 CAP includes measures to preserve agricultural land, which has the potential to improve cumulative conditions with regard to agricultural zoning. Some projects implementing Draft 2045 CAP measures and actions—

potentially utility-scale, ground-mounted energy-related projects—would not conflict with existing zoning for agricultural use (which allow for renewable energy uses with a conditional use permit), but would conflict with a designated Agricultural Resource Area if approved on Farmland. The incremental impacts of the Project in this regard could combine with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects (including projects that would proceed consistent with existing General Plan and zoning requirements) to cause or contribute to a significant cumulative impact. The Project’s contribution to this impact would be cumulatively considerable. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this impact.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar Development, would lessen the Project’s contribution to the significant cumulative impact, but would not ensure that a conflict with a designated Agricultural Resource Area would be avoided. Accordingly, even with implementation of Mitigation Measure 3.3-1, the Project’s incremental contribution to the cumulative impact would be cumulatively considerable, and therefore, significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c)

Impact 3.3-9: Projects facilitated by the Draft 2045 CAP would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. (No Cumulative Impact)

The Project could result in a cumulative impact on the zoning of forest land if a project implementing Draft 2045 CAP measures and actions were to conflict with the zoning of forest land and occur within the same time frame or geography as similar past, present, and reasonably foreseeable future cumulative projects located on forest land. The County does not have existing zoning specific to forest use or timberland; it also does not have land use authority over development in national forests such as Angeles National Forest and Los Padres National Forest, where most of the County’s forest land exists. As described above under Impact 3.3-3, the construction of new private residences in national forest lands is prohibited by the Forest Reserve Act of 1891, and U.S. Forest Service land usually is not made available if the overall needs of an individual project proponent or business can be met on nonfederal lands (U.S. Forest Service 2013).

The County has no existing zoning specific to forest land and private projects are generally prohibited on national forest land. For this reason, the cumulative impact related to conflicts with zoning for forest land would not be significant, and the Project’s incremental contribution to the cumulative impact would not be cumulatively considerable when taking into consideration similar past, present, and reasonably foreseeable future cumulative projects.

Mitigation: None required.

Criterion d)

Impact 3.3-10: Projects facilitated by the Draft 2045 CAP would not result in the loss of forest land or conversion of forest land to non-forest use. (*Less-than-Significant Impact*)

As described in the context of Impact 3.3-4, all of the land within the County that is considered forest land is located in Angeles National Forest and Los Padres National Forest. All of this land is outside the County’s land use jurisdiction except for approximately 40,000 acres of private inholdings. As described above, the construction of new private residences in National Forest lands is prohibited by the Forest Reserve Act of 1891, and U.S. Forest Service land usually is not made available if the overall needs of an individual project proponent or business can be met on nonfederal lands. Additionally, the Draft 2045 CAP includes measures intended to protect and conserve forest land, and forest lands generally would not be suitable for the implementation of Draft 2045 CAP measures and actions.

Although the potential exists for some development of the private inholdings as facilitated by the Draft 2045 CAP, the incremental impacts of the Project, together with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects, would not cause or contribute to a significant cumulative impact, and the Project’s contribution to this impact would not be cumulatively considerable.

Mitigation: None required.

Criterion e)

Impact 3.3-11: Projects facilitated by the Draft 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland. (*Significant and Unavoidable*)

As discussed in the context of Impact 3.3-5, some projects facilitated by the Draft 2045 CAP could cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use if, for example, they would divide productive agricultural lands into less productive units for reasons of access, irrigation, or scale of production. This incremental impact, together with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects (including projects developed consistent with existing General Plan and zoning code provisions), would cause or contribute to a significant cumulative impact. The Project’s contribution to this impact would be cumulatively considerable. Mitigation Measure 3.3-1 (identified above) would be implemented to reduce this impact.

Mitigation Measure: Implement Mitigation Measure 3.3-1.

Significance After Mitigation: Implementing Mitigation Measure 3.3-1, Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar Development, would lessen the Project’s cumulative contribution to conversion-related impacts, but would not ensure that other changes resulting in conversion would not occur. Accordingly, even with the implementation of Mitigation Measure 3.3-1, the Project’s incremental contribution to cumulative impacts would be cumulatively considerable and Impact 3.3-5 would be significant and unavoidable. No additional feasible mitigation measures are available.

Impact 3.3-12: Projects facilitated by the Draft 2045 CAP would not involve other changes in the existing environment which, due to their location or nature, could result in a significant cumulative impact due to conversion of forest land to non-forest use. (*Less-than-Significant Impact*)

As discussed above, projects facilitated by the Draft 2045 CAP would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for the implementation of many of the types of projects that would be facilitated by Draft 2045 CAP measures and actions. Even if projects facilitated by the Draft 2045 CAP were approved on forest lands, the relatively minor acreage (approximately 40,000 acres) within the County’s land use jurisdiction would be protected by the facilitated projects’ consistency with the General Plan and compliance with applicable provisions of the zoning code summarized in Section 3.3.1.3, *Regulatory Setting*. Although the potential exists for some development facilitated by the Draft 2045 CAP to convert forest land to non-forest use, the incremental impacts of the Project, together with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects, would not cause or contribute to a significant cumulative impact, and the Project’s contribution to this impact would not be cumulatively considerable.

Mitigation: None required.

3.4 Air Quality

This section identifies and evaluates issues related to air quality to determine whether the Project would result in a significant impact related to the applicable air quality plan, criteria pollutants, the exposure of sensitive receptors to air pollutants, or other emissions. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to air quality request consideration of dust-related impacts due to future renewable energy projects facilitated by the Draft 2045 CAP, including related health impacts like Valley Fever and asthma, and recommend a prohibition on gas-powered lawn and yard maintenance equipment (including mowers and blowers).

3.4.1 Setting

3.4.1.1 Study Area

The study area for this analysis of air quality impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. The unincorporated areas are located in the South Coast Air Basin (SCAB) and the Mojave Desert Air Basin (MDAB). See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.4.1.2 Environmental Setting

Regional Air Quality

Los Angeles County spans two air basins: the SCAB in the metropolitan portion of the County and the MDAB in the northeast desert portion of the County.

The SCAB is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SCAB consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside counties, in addition to the San Geronio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the SCAB, as it is a coastal plain with broad valleys and low hills. The SCAB lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The usually mild climatological pattern is interrupted by periods of hot weather, winter storms, or Santa Ana winds.

The extent and severity of pollutant concentrations in the SCAB is a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the SCAB, making

it an area of high pollution potential. The SCAB's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone, a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the greatest air pollution impacts throughout the SCAB typically occur from June through September. This condition generally is attributed to the emissions occurring in the SCAB, light winds, and shallow vertical atmospheric mixing. These factors reduce the potential for pollutant dispersion, causing elevated air pollutant levels. Pollutant concentrations in the SCAB vary with location, season, and time of day. Concentrations of ozone, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the SCAB and adjacent desert.

The MDAB includes the eastern half of Kern County, the northern part of Los Angeles County, most of San Bernardino County (except the southwest corner), and the eastern edge of Riverside County. It is separated from the SCAB, to its south, by the San Gabriel and San Bernardino Mountains. It is separated from the San Joaquin Valley, to the northwest, by the Tehachapi Mountains and the south end of the Sierra Nevada.

The MDAB is characterized by hot summers, cold winters, large diurnal ranges in temperature, low relative humidity, and irregular rainfall. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB blow from out of the west and southwest, because of the proximity of the MDAB to the Pacific Ocean and the blocking nature of the Sierra Nevada to the north. Air masses, pushed onshore in Southern California by differential heating, are channeled through the MDAB. The MDAB is separated from the Southern California coastal and Central California valley regions by mountains (highest elevation approximately 10,000 feet above mean sea level), the passes of which form the main channels for these air masses.

During the summer, the MDAB is generally influenced by a Pacific subtropical high-pressure cell that sits off the coast to the west, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by when they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south.

Criteria Pollutants

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, as a result of their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the U.S. Environmental Protection Agency (USEPA) and are subject to emissions control requirements adopted by federal, state, and local regulatory agencies. These regulated air pollutants, known as *criteria air pollutants*, are ozone, nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), inhalable particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM₁₀), fine inhalable particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (PM_{2.5}), and lead. These pollutants are referred to as criteria air pollutants as a

result of the specific standards, or *criteria*, that have been adopted for them. Brief descriptions of the health effects of these criteria air pollutants are provided below.

Ozone

Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of sunlight under favorable meteorological conditions, such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable.

According to the USEPA, ozone can cause the muscles in the airways to constrict potentially leading to wheezing and shortness of breath (USEPA 2018a). Ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease (USEPA 2018a).

Long-term exposure to ozone is linked to aggravation of asthma and is likely to be one of many causes of asthma development and long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children (USEPA 2018a). According to the California Air Resources Board (CARB), inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath (CARB 2021h).

The USEPA states that people most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure (USEPA 2018a). According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engaged in vigorous activities compared to adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults and are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults (CARB 2021h).

Volatile Organic Compounds

VOCs are organic chemical compounds of carbon and are not “criteria” pollutants themselves; however, they contribute with NO_x to form ozone, and are regulated to prevent the formation of ozone (USEPA 2017a). According to CARB, some VOCs are highly reactive and play a critical role in the formation of ozone, other VOCs have adverse health effects, and in some cases, VOCs can be both highly reactive and have adverse health effects. VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids, internal combustion

associated with motor vehicle usage, and consumer products (e.g., architectural coatings) (CARB 2021i).

Nitrogen Dioxide and Nitrogen Oxides

NO_x is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include *NO₂* and nitric oxide (*NO*). Ambient air quality standards have been promulgated for *NO₂*, which is a reddish-brown, reactive gas. The principal form of *NO_x* produced by combustion is *NO*, but *NO* reacts quickly in the atmosphere to form *NO₂*, creating the mixture of *NO* and *NO₂* referred to as *NO_x* (CARB 2021j). Major sources of *NO_x* include emissions from cars, trucks and buses, power plants, and off-road equipment (USEPA 2016a).

The terms *NO_x* and *NO₂* are sometimes used interchangeably. However, the term *NO_x* typically is used when discussing emissions, usually from combustion-related activities, and the term *NO₂* typically is used when discussing ambient air quality standards. Where *NO_x* emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all *NO_x* emissions would oxidize in the atmosphere to form *NO₂*.

According to the USEPA, short-term exposures to *NO₂* can potentially aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions and visits to emergency rooms while longer exposures to elevated concentrations of *NO₂* may contribute to the development of asthma and potentially increase susceptibility to respiratory infections (USEPA 2016a). According to CARB, controlled human-exposure studies that show that *NO₂* exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between *NO₂* exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk from exposure to *NO₂* because they have disproportionately higher exposure to *NO₂* than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.

CARB states that much of the information on distribution in air, human exposure and dose, and health effects is specifically for *NO₂* and there is only limited information for *NO* and *NO_x*, as well as large uncertainty in relating health effects to *NO* or *NO_x* exposure (CARB 2021j).

Carbon Monoxide

CO is primarily emitted from combustion processes and motor vehicles due to the incomplete combustion of fuel, such as natural gas, gasoline, or wood, with the majority of outdoor *CO* emissions from mobile sources (CARB 2021k). According to the USEPA, breathing air with a high concentration of *CO* reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain and at very high levels, which are possible indoors or in other enclosed environments, *CO* can cause dizziness, confusion, unconsciousness and death.

Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease because these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart, accompanied by chest pain also known as angina (USEPA 2016b).

According to CARB, the most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress; inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2021k).

Sulfur Dioxide

According to the USEPA, the largest source of SO₂ emissions in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities, while smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content (USEPA 2018b). In 2006, California phased-in the ultra-low-sulfur diesel regulation limiting vehicle diesel fuel to a sulfur content not exceeding 15 parts per million, down from the previous requirement of 500 parts per million, substantially reducing emissions of sulfur from diesel combustion (CARB 2004).

According to the USEPA, short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult (USEPA 2018b). According to CARB, health effects at levels near the state one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity and exposure at elevated levels of SO₂ (above 1 part per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality (CARB 2021d). Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO₂ (CARB 2021d; USEPA 2018b).

Particulate Matter (PM₁₀ and PM_{2.5})

Particulate matter air pollution is a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye while other particles are so small that they can only be detected using an electron microscope. Particles are defined by their diameter for air quality regulatory purposes: inhalable particles with diameters that are generally 10 micrometers and smaller (PM₁₀); and fine inhalable particles with diameters that are generally 2.5 micrometers and smaller (PM_{2.5}) (USEPA 2018c). Thus, PM_{2.5} is a portion or a subset of PM₁₀.

Sources of PM₁₀ emissions include dust from construction sites and some operational activities (such as maintenance occurring on unpaved surfaces), landfills and agriculture, wildfires and brush/waste burning, industrial sources, and wind-blown dust from open lands. Sources of PM_{2.5} emissions include combustion of gasoline, oil, diesel fuel, or wood. PM₁₀ and PM_{2.5} may be either directly emitted from sources (primary particles) or formed in the atmosphere through chemical reactions of gases (secondary particles) such as SO₂, NO_x, and certain organic compounds.

According to CARB, both PM₁₀ and PM_{2.5} can be inhaled, with some depositing throughout the airways. PM₁₀ is more likely to deposit on the surfaces of the larger airways of the upper region of the lung, while PM_{2.5} is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation. Short-term (up to 24 hours duration) exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. The effects of long-term (months or years) exposure to PM₁₀ are less clear, although studies suggest a link between long-term PM₁₀ exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (WHO and IARC 2015). Short-term exposure to PM_{2.5} has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days and long-term exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children (WHO and IARC 2015).

According to CARB, populations most likely to experience adverse health effects with exposure to PM₁₀ and PM_{2.5} include older adults with chronic heart or lung disease, children, and asthmatics and children and infants are more susceptible to harm from inhaling pollutants such as PM₁₀ and PM_{2.5} compared to healthy adults because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems (CARB 2021n).

Lead

Major sources of lead emissions include ore and metals processing, piston-engine aircraft operating on leaded aviation fuel, waste incinerators, utilities, and lead-acid battery manufacturers. In the past, leaded gasoline was a major source of lead emissions; however, the removal of lead from gasoline has resulted in a decrease of lead in the air by 98 percent between 1980 and 2014.

Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system, and affects the oxygen carrying capacity of blood (USEPA 2017b). The effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage. Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain (CARB 2021o).

Other Criteria Pollutants (California Only)

The California ambient air quality standards (CAAQS) regulate the same criteria pollutants as the national ambient air quality standards (NAAQS) as well as state-identified criteria pollutants, including sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride (CARB 2021a). With respect to the state-identified criteria pollutants (i.e., sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride), the Draft 2045 CAP would either not emit them (i.e., hydrogen sulfide and vinyl chloride), or they would be accounted for as part of the pollutants estimated in this analysis (i.e., sulfates and visibility reducing particles). For example, visibility reducing particles are associated with particulate matter emissions and sulfates are associated with sulfur oxides (SO_x) emissions. Both particulate matter and SO_x are included in the emissions estimates for the Project. A description of the health effects of the state-identified criteria air pollutants is provided below.

Sulfates

Sulfates in the environment occur as a result of sulfur dioxide (SO₂) being converted to sulfate compounds in the atmosphere where sulfur is first oxidized to SO₂ during the combustion process of sulfur containing, petroleum-derived fuels (e.g., gasoline and diesel fuel). Exposure to sulfates, which are part of PM_{2.5}, results in health effects similar to those from exposure to PM_{2.5} including reduced lung function, aggravated asthmatic symptoms, and increased risk of emergency department visits, hospitalizations, and death in people who have chronic heart or lung diseases. Population groups with higher risks of experiencing adverse health effects with exposure to sulfates include children, asthmatics, and older adults who have chronic heart or lung diseases (CARB 2021e).

Hydrogen Sulfide

Hydrogen sulfide is a colorless gas with a strong odor of rotten eggs. The most common sources of hydrogen sulfide emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. Industrial sources of hydrogen sulfide include petrochemical plants and kraft paper mills. Hydrogen sulfide is also formed during bacterial decomposition of human and animal wastes, and is present in emissions from sewage treatment facilities and landfills.

Exposure to hydrogen sulfide can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 ppm, which is considerably higher than the odor threshold. Hydrogen sulfide is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level. According to CARB, there are insufficient data available to determine whether or not some groups are at greater risk than others (CARB 2021d).

Visibility-Reducing Particles

Visibility-reducing particles come from a variety of natural and manmade sources and can vary greatly in shape, size and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. Certain visibility-reducing particles are directly emitted to the air such as windblown dust and soot, while

others are formed in the atmosphere through chemical transformations of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of particulate matter. As the number of visibility-reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Exposure to some haze-causing pollutants have been linked to adverse health impacts similar to PM₁₀ and PM_{2.5} (CARB 2021g).

Vinyl Chloride

Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products and are generally emitted from industrial processes and other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term health effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans. Most health data on vinyl chloride relate to carcinogenicity; thus, the people most at risk are those who have long-term exposure to elevated levels, which is more likely to occur in occupational or industrial settings; however, control methodologies applied to industrial facilities generally prevent emissions to the ambient air (CARB 2021f).

Toxic Air Contaminants

In addition to criteria pollutants, the South Coast Air Quality Management District (SCAQMD) periodically assesses levels of toxic air contaminants (TACs) in the SCAB. A TAC is defined by Health and Safety Code Section 39655:

“Toxic air contaminant” means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. [United States Code] § 7412(b)) is a toxic air contaminant.

Diesel particulate matter, which is emitted in the exhaust from diesel engines, was listed by the State of California as a toxic air contaminant in 1998. Most major sources of diesel emissions, such as ships, trains, and trucks operate in and around ports, railyards, and heavily traveled roadways. These areas often are located near highly populated areas resulting in greater health consequences for urban areas than rural areas (CARB 2021c). Diesel particulate matter has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. Diesel particulate matter consists of fine particles (fine particles have a diameter less than 2.5 micrometers), including a subgroup of ultrafine particles (ultrafine particles have a diameter less than 0.1 micrometer). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or “soot.” Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to diesel particulate matter may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Diesel

particulate matter levels and resultant potential health effects may be higher in proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, diesel particulate matter exposure may lead to the following adverse health effects: aggravated asthma, chronic bronchitis, increased respiratory and cardiovascular hospitalizations, decreased lung function in children, lung cancer, and premature deaths for people with heart or lung disease (CARB 2008, 2021b).

In August 2021, the SCAQMD released the Final Multiple Air Toxics Exposure Study V (MATES V) (SCAQMD 2021a). The MATES V study includes a fixed-site monitoring program with ten stations, an updated emissions inventory of TACs, and a modeling effort to characterize risk across the SCAB. The purpose of the fixed-site monitoring is to characterize long-term regional air toxics levels in residential and commercial areas.

In addition to new measurements and updated modeling results, several key updates were implemented in MATES V. First, MATES V estimates cancer risks by taking into account multiple exposure pathways, which includes inhalation and non-inhalation pathways. This approach is consistent with how cancer risks are estimated in SCAQMD's programs such as permitting, Air Toxics Hot Spots (Assembly Bill [AB] 2588), and CEQA. Previous MATES studies quantified the cancer risks based on the inhalation pathway only. Second, along with cancer risk estimates, MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time.

Cancer risks and chronic noncancer risks from MATES II through IV measurements have been reexamined using current Office of Environmental Health Hazard Assessment and California Environmental Protection Agency risk assessment methodologies and modern statistical methods to examine the trends over time. This has led to a reduction of the SCAB average air toxics cancer risk from 997 in a million in MATES IV to 455 in a million in MATES V (SCAQMD 2021b).

The key takeaways from the MATES V study (SCAQMD 2021c):

- Air toxics cancer risk has decreased by about 50 percent since MATES IV based on modeling data.
- MATES V basin average multi-pathway air toxics cancer risk is 455 in a million, with the highest risk locations being in the Los Angeles International Airport, downtown, and ports areas.
- Diesel particulate matter is the main risk driver for air toxics cancer risk.
- Goods movement and transportation corridors have the highest air toxics cancer risks.
- The chronic non-cancer risk was estimated for the first time with a chronic hazard index of approximately 5 to 9 across all 10 fixed stations.

The MDAQMD does not publish health risk estimates for areas within its jurisdiction.

Airborne Fungus (Valley Fever)

Coccidioidomycosis, commonly referred to as *San Joaquin Valley Fever* or *Valley Fever*, is one of the most studied and oldest known fungal infections. Valley Fever most commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis*.

Coccidioides immitis spores are found in the top few inches of soil. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust also are more likely to contract Valley Fever. After the fungal spores have settled in the lungs, they change into a multicellular structure called a spherule. Fungal growth in the lungs occurs as the spherule grows and bursts, releasing endospores, which then develop into more spherules.

Approximately 60 percent of Valley Fever cases are mild and display flu-like symptoms or no symptoms at all. Of those who are exposed and seek medical treatment, the most common symptoms include fatigue, cough, loss of appetite, rash, headache, and joint aches. In some cases, painful red bumps may develop on the skin. Because these symptoms are not unique to Valley Fever and also may be caused by other illnesses, identifying and confirming this disease requires specific laboratory tests, such as the following (Valley Fever Center for Excellence 2022):

- Microscopic identification of the fungal spherules in infected tissue, sputum or body fluid sample.
- Growing a culture of *Coccidioides immitis* from a tissue specimen, sputum, or body fluid.
- Detection of antibodies (serological tests specifically for Valley Fever) against the fungus in blood serum or other body fluids.
- Administering the Valley Fever Skin Test (called coccidioidin or spherulin), which indicate prior exposure to the fungus.

The highest incidence rate within California occurs in Kern County within the San Joaquin Valley Air Basin, with 2,790 annual cases reported for the period ending February 28, 2022. Within Los Angeles County, there were 1,484 annual reported cases for the period ending February 28, 2022 (CDPH 2022).¹

Valley Fever is not contagious, and therefore cannot be passed on from person to person. Most of those who are infected recover without treatment within six months and thereafter have a lifelong immunity to the fungal spores. In severe cases, especially in those patients with rapid and

¹ The data presented may change as a result of delays inherent to case reporting, laboratory reporting, and epidemiologic investigation.

extensive primary illness, those who are at risk for dissemination of disease, and those who have disseminated disease, antifungal drug therapy is used.

The type of medication used and the duration of drug therapy are determined by the severity of disease and response to the therapy. The medications used include ketoconazole, itraconazole, and fluconazole in chronic, mild-to-moderate disease, and amphotericin B, given intravenously or inserted into the spinal fluid, for rapidly progressive disease. Although these treatments are often helpful, evidence of disease may persist and years of treatment may be required (Valley Fever Center for Excellence 2022). Approximately 60 percent of people infected are asymptomatic and do not seek medical attention. In the remaining 40 percent, symptoms range from mild to severe. A small percentage, less than 1 percent, die as a result of the disease (VCAPCD 2003).

Local Air Quality

CARB maintains a website with technical information on all of monitoring stations operated throughout the state (CARB 2021m). Within the County, 21 monitoring stations measure ambient pollutant concentrations. Criteria pollutants monitored vary by station and may include ozone, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and hydrogen sulfide. The locations of these stations were chosen to meet monitoring objectives, which call for stations that monitor the highest pollutant concentrations, representative concentrations in areas of high population density, the impact of major pollution emissions sources, and general background concentration levels.

Table 3.4-1, Ambient Air Quality Monitoring Summary—South Coast Air Basin, summarizes the number of days the NAAQS or CAAQS were exceeded and the maximum pollutant levels during such exceedances. The data show that the County regularly exceeds the state one-hour and state and federal eight-hour ozone standards and the federal PM_{2.5} standard within the last five recorded years. The NO₂ standards have not been exceeded in the last five years in the SCAB.

Table 3.4-2, Ambient Air Quality Monitoring Summary—Mojave Desert Air Basin, summarizes the number of days the NAAQS or CAAQS were exceeded and the maximum pollutant levels during such exceedances. The data show that the County regularly exceeds the state one-hour and the state and federal eight-hour ozone standards and the federal PM_{2.5} standard within the last five recorded years. The NO₂ standards have not been exceeded in the last five years in Los Angeles County.

Sensitive Receptors

Sensitive receptors are land uses or people considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include preexisting health problems, proximity to emissions sources, or duration of exposure to air pollutants. Residences, schools, hospitals, convalescent homes, and parks are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality–related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

**TABLE 3.4-1
 AMBIENT AIR QUALITY MONITORING SUMMARY—SOUTH COAST AIR BASIN**

| Pollutant / Standard | Number of Days Thresholds Were Exceeded and Maximum Levels during Such Exceedances | | | | |
|--|--|-------|-------|-------|-------|
| | 2017 | 2018 | 2019 | 2020 | 2021 |
| Ozone (O₃) | | | | | |
| State 1-Hour ≥ 0.09 ppm | 81 | 63 | 73 | 104 | 74 |
| State 8-Hour ≥ 0.07 ppm | 116 | 113 | 111 | 145 | 118 |
| Federal 8-Hour ≥ 0.07 ppm | 117 | 113 | 109 | 141 | 114 |
| Max 1-Hour Concentration (ppm) | 0.158 | 0.142 | 0.137 | 0.185 | 0.148 |
| Max 8-Hour Concentration (ppm) | 0.136 | 0.125 | 0.118 | 0.140 | 0.120 |
| Nitrogen Dioxide (NO₂) | | | | | |
| State 1-Hour ≥ 0.18 ppm | 0 | 0 | 0 | 0 | 0 |
| Max 1-Hour Concentration (ppb) | 115 | 90 | 97 | 101 | 91 |
| Fire Particulates (PM_{2.5}) | | | | | |
| Federal 24-Hour ≥ 35 µg/m ³ | 18 | 17 | 12 | 28 | 22 |
| Max 24-Hour Concentration (µg/m ³) | 85.4 | 103.8 | 81.3 | 175.0 | 102.1 |

NOTES: µg/m³ = micrograms per cubic meter; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; ppb = parts per billion; ppm = parts per million.
 SOURCE: CARB 2022a

**TABLE 3.4-2
 AMBIENT AIR QUALITY MONITORING SUMMARY—MOJAVE DESERT AIR BASIN**

| Pollutant / Standard | Number of Days Thresholds Were Exceeded and Maximum Levels during Such Exceedances | | | | |
|--|--|-------|-------|-------|-------|
| | 2017 | 2018 | 2019 | 2020 | 2021 |
| Ozone (O₃) | | | | | |
| State 1-Hour ≥ 0.09 ppm | 47 | 39 | 21 | 28 | 32 |
| State 8-Hour ≥ 0.07 ppm | 103 | 129 | 75 | 89 | 99 |
| Federal 8-Hour ≥ 0.07 ppm | 99 | 123 | 72 | 85 | 95 |
| Max 1-Hour Concentration (ppm) | 0.156 | 0.126 | 0.119 | 0.130 | 0.131 |
| Max 8-Hour Concentration (ppm) | 0.119 | 0.107 | 0.090 | 0.101 | 0.107 |
| Nitrogen Dioxide (NO₂) | | | | | |
| State 1-Hour ≥ 0.18 ppm | 0 | 0 | 0 | 0 | 0 |
| Max 1-Hour Concentration (ppb) | 61 | 59 | 59 | 62 | 62 |
| Fire Particulates (PM_{2.5}) | | | | | |
| Federal 24-Hour ≥ 35 µg/m ³ | 0 | 3 | 0 | 23 | 14 |
| Max 24-Hour Concentration (µg/m ³) | 27.2 | 40.4 | 34.1 | 125.4 | 178.0 |

NOTES: µg/m³ = micrograms per cubic meter; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; ppb = parts per billion; ppm = parts per million
 SOURCE: CARB 2022a

3.4.1.3 Regulatory Setting

A number of statutes, regulations, plans, and policies have been adopted that address air quality concerns. The Draft 2045 CAP, once approved, would be subject to air quality regulations developed and implemented at the federal, state, and local levels. At the federal level, the USEPA is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile-source requirements and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary-source requirements) are implemented through delegation of authority to state and local agencies. A number of plans and policies have been adopted by various agencies that address air quality concerns. Those plans and policies that are relevant to the Project are discussed below.

Federal Laws, Regulations, and Policies

The federal CAA (United States Code Title 42, Section 7401), as amended, is the comprehensive federal law that regulates air emissions to protect public health and welfare (USEPA 2021a). The USEPA is responsible for the implementation and enforcement of the CAA, which establishes federal NAAQS, specifies future dates for achieving compliance, and requires USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to the Draft 2045 CAP include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions) (USEPA 2017c).²

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. **Table 3.4-3, *Ambient Air Quality Standards***, shows the NAAQS currently in effect for each criteria pollutant. The NAAQS and their California equivalent (CAAQS) for state criteria air pollutants (discussed below) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings (USEPA 2021b). In addition to criteria pollutants, Title I includes air toxics provisions that require USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112, USEPA establishes National Emission Standards for Hazardous Air Pollutants. The list of hazardous air pollutants, or air toxics, includes specific compounds that are known or suspected to cause cancer or other serious health effects.

² *Mobile sources* include on-road vehicles (e.g., cars, buses, motorcycles) and non-road vehicles (e.g., aircraft, trains, construction equipment). *Stationary sources* consist of both point and area sources. *Point sources* are stationary facilities that emit large amount of pollutants (e.g., municipal waste incinerators, power plants). *Area sources* are smaller stationary sources that alone are not large emitters, but combined can account for large amounts of pollutants (e.g., consumer products, residential heating, dry cleaners).

**TABLE 3.4-3
 AMBIENT AIR QUALITY STANDARDS**

| Pollutant | Average Time | California Standards ^a | | National Standards ^b | | |
|--|---|---------------------------------------|--|--|--------------------------------------|--|
| | | Concentration ^c | Method ^d | Primary ^{c,e} | Secondary ^{c,f} | Method ^g |
| Ozone (O ₃) ^h | 1 Hour | 0.09 ppm (180 µg/m ³) | Ultraviolet Photometry | — | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m ³) | | 0.070 ppm (137 µg/m ³) | | |
| Nitrogen Dioxide (NO ₂) ⁱ | 1 Hour | 0.18 ppm (339 µg/m ³) | Gas Phase Chemi- luminescence | 100 ppb (188 µg/m ³) | None | Gas Phase Chemi- luminescence |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/m ³) | | 53 ppb (100 µg/m ³) | Same as Primary Standard | |
| Carbon Monoxide (CO) | 1 Hour | 20 ppm (23 mg/m ³) | Non-Dispersive Infrared Photometry (NDIR) | 35 ppm (40 mg/m ³) | None | Non-Dispersive Infrared Photometry (NDIR) |
| | 8 Hour | 9.0 ppm (10 mg/m ³) | | 9 ppm (10 mg/m ³) | | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m ³) | | — | | |
| Sulfur Dioxide (SO ₂) ^j | 1 Hour | 0.25 ppm (655 µg/m ³) | Ultraviolet Fluorescence | 75 ppb (196 µg/m ³) | — | Ultraviolet Fluorescence; Spectrophotome try (Pararosaniline Method) ⁹ |
| | 3 Hour | — | | — | 0.5 ppm (1300 µg/m ³) | |
| | 24 Hour | 0.04 ppm (105 µg/m ³) | | 0.14 ppm (for certain areas) ^j | — | |
| | Annual Arithmetic Mean | — | | 0.030 ppm (for certain areas) ^j | — | |
| Particulate Matter— PM ₁₀ ^k | 24 Hour | 50 µg/m ³ | Gravimetric or Beta Attenuation | 150 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m ³ | | — | | |
| Particulate Matter— PM _{2.5} ^k | 24 Hour | No Separate State Standard | | 35 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m ³ | Gravimetric or Beta Attenuation | 12.0 µg/m ³ k | 15 µg/m ³ | |
| Lead ^{l,m} | 30 Day Average | 1.5 µg/m ³ | Atomic Absorption | — | — | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | — | | 1.5 µg/m ³ (for certain areas) ^m | Same as Primary Standard | |
| | Rolling 3-Month Average ^m | -- | | 0.15 µg/m ³ | | |

TABLE 3.4-3 (CONTINUED)
AMBIENT AIR QUALITY STANDARDS

| Pollutant | Average Time | California Standards ^a | | National Standards ^b | | |
|--|--------------|---|--------------------------|---------------------------------|--------------------------|---------------------|
| | | Concentration ^c | Method ^d | Primary ^{c,e} | Secondary ^{c,f} | Method ^g |
| Visibility-Reducing Particles ⁿ | 8 Hour | Extinction coefficient of 0.23 per kilometer — visibility of 10 miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape. | | No Federal Standards | | |
| Sulfates (SO ₄) | 24 Hour | 25 µg/m ³ | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m ³) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride ^l | 24 Hour | 0.01 ppm (26 µg/m ³) | Gas Chromatography | | | |

NOTES:

µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller; ppm = parts per million

- California's standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equalled or exceeded. California ambient air quality standards are listed in the Table of Standards in California Code of Regulations Title 17, Section 70200.
- National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board (CARB) to give equivalent results at or near the level of the air quality standard may be used.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- Reference method as described by the U.S. Environmental Protection Agency (USEPA). An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³.
- CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- The national standard for lead was revised on October 15, 2008 to a rolling three-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB 2016

Title II requirements pertain to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emissions standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for nitrogen oxides (NO_x) emissions have been made more stringent to reduce the amount of emissions allowed. See Section 3.9, *Greenhouse Gas Emissions*, which discusses the most recently proposed federal motor vehicle tailpipe emissions standards. Notable federal actions include:

- *Revocation of the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule:* On March 14, 2022, the USEPA published its Notice of Decision to restore California’s waiver, which allows California to set more stringent vehicle fuel efficiency standards, rescinding the SAFE Vehicles Rule (*Federal Register* Volume 87, page 14332).
- *Issuance of the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards:* The issuance of these standards revises the GHG standards for vehicles from model year 2023 through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector, which are expected to result in average fuel economy label values of 40 miles per gallon, while the standards they replace (the SAFE rule standards) would achieve only 32 miles per gallon in model year 2026 vehicles (USEPA 2021c).

State Laws, Regulations, and Policies

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS are established to protect the health of the most sensitive groups and apply to the same criteria pollutants as the federal Clean Air Act and also includes state-identified criteria pollutants, which are sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride (CARB 2021a). CARB has primary responsibility for ensuring the implementation of the California Clean Air Act, responding to the federal CAA planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state.

California Air Resources Board

CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS (see Table 3.4-1), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California’s SIP, for which it works closely with the federal government and the local air districts. The SIP is required for the state to take over implementation of the federal CAA from USEPA.

On-Road Equipment, Trucks, and Buses

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) limiting heavy-duty diesel motor vehicle idling to reduce public exposure to diesel PM and other TACs (California Code of Regulations Title 13, Section 2485 [13 CCR Section 2485]). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In 2008, CARB approved the Truck and Bus regulation to reduce NO_x, PM₁₀, and PM_{2.5} emissions from existing diesel vehicles operating in California (13 CCR Section 2025). The requirements were amended to apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet, those with a gross vehicle weight rating greater than 26,000 pounds, all must be equipped with diesel particulate filters from 2014 and onward and must have 2010 model year engines by January 1, 2023. For trucks and buses with a gross vehicle weight rating of 14,001–26,000 pounds, those with engine model years 14–20 years or older must be replaced with 2010 model year engines in accordance with the schedule specified in the regulation.

Off-Road Equipment

In addition to limiting exhaust from idling trucks, CARB promulgated emissions standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by the CARB on July 26, 2007, aims to reduce emissions by the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emissions-controlled models (13 CCR Section 2449).

Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits (Verified Diesel Emission Control Strategies installation) be fully implemented by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

Light- and Medium-Duty Vehicles

In 2012, CARB approved the Advanced Clean Cars Program, which includes low-emission vehicle and zero-emission vehicle regulations that reduce criteria pollutants and greenhouse gas (GHG) emissions from light- and medium-duty vehicles (CARB 2022b). On November 30, 2022, CARB approved the Advanced Clean Cars II rule, which requires that all new passenger cars, trucks, and sport utility vehicles (SUVs) sold in California be zero emissions by 2035 (CARB 2023b). See Section 3.5, *Greenhouse Gas Emissions*, which discusses the state light- and medium-duty vehicle emissions standards.

Diesel Commercial Vehicle Idling and Engine Regulations

As stated in 13 CCR Section 2485, idling by all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction is limited to five minutes at any location. In addition, 17 CCR Section 93115 of the regulations states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

Nuisance Regulations

Health and Safety Code Section 41700 states, “a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.” This section also applies to objectionable odors.

Toxic Air Contaminants

The California Air Toxics Program was established to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and the Office of Environmental Health Hazard Assessment determine whether a substance should be formally identified, or “listed,” as a TAC in California. The SCAQMD has not adopted guidance applicable to land use projects that requires quantitative health risk assessments to be performed for construction exposures to TAC emissions.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on the results of that review, CARB has promulgated a number of ATCMs, both for mobile and stationary sources. As discussed above, in 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter (DPM) and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In addition to limiting exhaust from idling trucks, as discussed above, CARB promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by CARB on July 26, 2007, aims to reduce emissions by the installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission-controlled models.

The AB 1807 program is supplemented by the AB 2588 Air Toxics “Hot Spots” program, which requires facilities to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. Facilities that pose a significant health risk to the community must reduce their risk through implementation of a risk management plan.

Regional and Local Laws, Regulations, and Policies

While CARB is responsible for the regulation of mobile emissions sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB, and the Antelope Valley Air Quality Management District (AVAQMD) is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Los Angeles portion of the MDAB. The metropolitan portions of the County are within the SCAB under the jurisdiction of the SCAQMD, and the desert portions of the County lie within the MDAB under the jurisdiction of the AVAQMD. The SCAQMD and the AVAQMD are discussed below.

South Coast Air Quality Management District

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the SCAB, which includes all of Orange County, Los Angeles County (excluding the Antelope Valley portion), the western, non-desert portion of San Bernardino County, and the western Coachella Valley and San Gorgonio Pass portions of Riverside County. The SCAB is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB is a subregion within the western portion of the SCAQMD jurisdiction. While air quality in the SCAB has improved, the SCAB requires continued diligence to meet the air quality standards.

Air Quality Management Plan

The SCAQMD has adopted air quality management plans (AQMPs) to meet the CAAQS and NAAQS. Most recently, SCAQMD has adopted the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 parts per billion [ppb]) for the SCAB and Coachella Valley. On January 26, 2023, CARB adopted Resolution 23-4, which directs the CARB Executive Officer to submit the 2022 AQMP, as adopted by SCAQMD and the relevant portions of the CARB Staff Report, to USEPA for inclusion in the California SIP. The 2022 AQMP would become effective, for purposes of federal law, after notice and public hearing as required by Section 110(l) of the Clean Air Act and Code of Federal Regulations Title 40, Section 51.102 and approval by USEPA, and upon appropriate action, if required, to resolve any completeness or approvability issues that may arise regarding the SIP submission, including to meet applicable requirements for contingency measures. Because USEPA approval has not yet been obtained, the 2016 AQMP remains the appropriate version to consider when discussing a project's consistency with the AQMP. The SCAB is classified as an "extreme" nonattainment area and the Coachella Valley is classified as a "severe-15" nonattainment area for the 2015 Ozone NAAQS (SCAQMD 2016a). In 2021, SCAQMD and CARB established Mobile Source Working Groups to support the development of mobile-source strategies. SCAQMD also established Residential and Commercial Buildings Working Groups to support the development of control measures.

The SCAQMD Governing Board adopted the 2016 AQMP on March 3, 2017 (SCAQMD 2017). CARB approved the 2016 AQMP on March 23, 2017 (CARB 2017). Key elements of the 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero

and near-zero-emissions technologies; and taking credit from co-benefits from GHG emissions, energy, transportation, and other planning efforts (SCAQMD 2017). The strategies included in the 2016 AQMP build on the strategies from the previous 2012 AQMP and are intended to demonstrate attainment of the NAAQS, which are set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings, for the federal nonattainment pollutants ozone and PM_{2.5} while accounting for regional growth, increasing development, and maintaining a healthy economy. In general, SCAQMD's criteria for evaluating control strategies for stationary and mobile sources is based on the following: (1) cost effectiveness; (2) emissions reduction potential; (3) enforceability; (4) legal authority; (5) public acceptability; (6) rate of emission reduction; and (7) technological feasibility. The 2016 AQMP includes both stationary- and mobile-source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources (SCAQMD 2017).

As detailed in the AQMP, the major sources of air pollution in SCAB are divided into four major source classifications: point, and area stationary sources, and on-road and off-road mobile sources. Point and area sources are the two major subcategories of stationary sources (SCAQMD 2017). Point sources are permitted facilities that contain one or more emission sources at an identified location (e.g., power plants, refineries, emergency generator exhaust stacks). Area sources consist of many small emission sources (e.g., residential water heaters, architectural coatings, consumer products, restaurant charbroilers and permitted sources such as large boilers) which are distributed across the region. Mobile sources consist of two main subcategories: On-road sources (such as cars and trucks) and off-road sources (such as heavy construction equipment).

South Coast Air Quality Management District Air Quality Guidance Documents

SCAQMD's *CEQA Air Quality Handbook* (SCAQMD 1993) provides local governments with guidance for analyzing and mitigating project-specific air quality impacts, including standards, methodologies, and procedures for conducting air quality analyses in EIRs. The Handbook was used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) and the on-road mobile-source emission factors in Table A9-5-J1 through A9-5 of the *CEQA Air Quality Handbook* because they are outdated (SCAQMD 2022).

The SCAQMD instead recommends using other approved models to calculate emissions from land use projects (SCAQMD 2022). Examples of such other models include the CalEEMod software, which is a model developed for California Air Pollution Control Officers Association in collaboration with the California air districts (CAPCOA 2021). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria pollutant and GHG emissions from a variety of land use projects.

The SCAQMD has also adopted land use planning guidelines in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions (SCAQMD 2005). SCAQMD's general land use siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, a 1,000-foot siting distance for sensitive land uses proposed in proximity to a major service and maintenance rail yard, and the same siting criteria for distribution centers and dry-cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* for CEQA evaluations that is intended to provide guidance when evaluating the localized impacts from mass emissions during construction (SCAQMD 2008). The SCAQMD adopted additional guidance regarding PM_{2.5} emissions in a document called *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds* (SCAQMD 2006). This latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities (SCAQMD 2016b).

South Coast Air Quality Management District Rules and Regulations

The SCAQMD has adopted many rules and regulations to regulate sources of air pollution in the SCAB and to help achieve air quality standards. A list of rules and regulations relevant to this analysis follows.

Regulation IV—Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events.

Rule 401—Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

Rule 402—Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403—Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the Project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering or using nontoxic chemical stabilizers to prevent the generation of visible dust plumes, limiting vehicle speeds to 15 miles per hour on unpaved surfaces, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by USEPA.

Rule 403.2—Fugitive Dust from Large Roadway Projects: This rule requires fugitive dust control measures intended to reduce potential air quality impacts on people who may be exposed to fugitive dust generated by large roadway projects. The provisions of this rule supplement the requirements of Rule 403 and shall apply only when rule-specified activities for a large roadway project are or will be conducted close to an area of public exposure or sensitive receptors near a large roadway, as defined in Rule 403.2. This rule contains control measures for aggregate crushing and grinding operations, material piles, construction and demolition activities, earthmoving, and vehicles traveling on unpaved surfaces.

Rule 410—Odors from Transfer Stations and Material Recovery Facilities: The purpose of this rule is to establish odor management practices and requirements to reduce odors from municipal solid waste transfer stations and material recovery facilities.

Rule 431.2—Sulfur Content of Liquid Fuels: This rule limits the sulfur content in diesel and other liquid fuels for the purpose both of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile-source applications.

Rule 442—Usage of Solvents: The purpose of this rule is to reduce emissions of VOCs from VOC-containing materials or equipment not subject to the VOC limits in any Regulation XI rule. The rule sets VOC emission limits for facilities subject to the rule.

Rule 445—Wood Burning Devices: This rule reduces the emission of particulate matter from woodburning devices and establish contingency measures for applicable ozone standards for the reduction of VOCs. Per Rule 445, no person shall permanently install a wood-burning device into any new development.

Regulation XI—Source Specific Standards: Regulation XI sets emissions standards for specific sources.

Rule 1107—Coating of Metal Parts and Products: This rule sets VOC emissions limits from the coating of metal parts and products and applies to all metal coatings operations with certain exceptions as defined in the rule.

Rule 1110.2—Emissions from Gaseous- and Liquid-Fueled Engines: This rule applies to stationary and portable engines rated at greater than 50 horsepower. The purpose of Rule 1110.2 is to reduce NO_x, VOCs, and CO emissions from engines. Emergency engines, including those powering standby generators, are generally exempt from the

emissions and monitoring requirements of this rule because they have permit conditions that limit operation to 200 hours or less per year as determined by an elapsed operating time meter.

Rule 1113—Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1121—Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters: This rule specifies NO_x emission limits for natural gas-fired water heaters, with heat input rates less than 75,000 British thermal units per hour.

Rule 1133—Composting and Related Operations—General Administrative Requirements: This rule sets forth administrative requirements for existing and new chipping and grinding activities and composting operations. The purpose of this rule is to create an emissions-related informational database on composting and related operations through a registration process.

Rule 1133.2—Emission Reductions from Co-Composting Operations: The purpose of this rule is to reduce VOC and ammonia emissions from co-composting operations.

Rule 1133.3—Emission Reductions from Greenwaste Composting Operations: The purpose of this rule is to reduce fugitive emissions of VOC and ammonia occurring during greenwaste composting operations.

Rule 1138—Control of Emissions from Restaurant Operations: This rule specifies particulate matter and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.

Rule 1146.1—Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired boilers, steam generators, and process heaters as defined in this rule.

Rule 1146.2—Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1171—Solvent Cleaning Operations: The purpose of this rule is to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting or global-warming compounds from the use, storage and disposal of solvent cleaning materials in solvent cleaning operations and activities. A solvent cleaning operation is solvent cleaning conducted as part of a business.

Rule 1186—PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Regulation XIV—Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria pollutants.

Rule 1401 and Rule 1402—New Source Review of Toxic Air Contaminants and Control of Toxic Air Contaminants from Existing Sources: SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

Rule 1403—Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Rule 1470—Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines: This rule applies to stationary compression ignition engines greater than 50 brake horsepower, such as emergency generators, and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

Attainment Status

Table 3.4-4, *South Coast Air Basin Attainment Status (Los Angeles County)*, shows the attainment status of the Los Angeles County portion of the SCAB for each criteria pollutant. As shown in Table 3.4-4, the Los Angeles County portion of the SCAB is designated under federal or state ambient air quality standards as nonattainment for ozone, PM₁₀, and PM_{2.5}. The Los Angeles County portion of the SCAB is designated as nonattainment for the federal lead standard; however, this was due to localized emissions from two lead-acid battery recycling facilities in the city of Vernon and the City of Industry that are no longer operating (SCAQMD 2005).

**TABLE 3.4-4
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)**

| Pollutant | National Standards (NAAQS) | California Standards (CAAQS) |
|-------------------------------|---------------------------------------|------------------------------|
| Ozone (1-hour standard) | N/A | Non-attainment–Extreme |
| Ozone (8-hour standard) | Non-attainment–Extreme | Non-attainment |
| Carbon Monoxide | Attainment (Maintenance area) | Attainment |
| Nitrogen Dioxide | Attainment | Attainment |
| Sulfur Dioxide | Attainment | Attainment |
| PM ₁₀ | Attainment | Non-attainment |
| PM _{2.5} | Non-attainment–Serious | Non-attainment |
| Lead | Non-attainment (Partial) ^b | Attainment |
| Visibility-Reducing Particles | N/A | Unclassified |
| Sulfates | N/A | Attainment |
| Hydrogen Sulfide | N/A | Unclassified |
| Vinyl Chloride ^c | N/A | N/A |

NOTES:

CAAQS = California ambient air quality standard; N/A = not applicable; NAAQS = national ambient air quality standard; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller

^a The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

^b Partial Non-attainment designation—Los Angeles County portion of the South Coast Air Basin only for near-source monitors.

^c In 1990, the California Air Resources Board (CARB) identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, CARB does not monitor or make status designations for this pollutant.

SOURCE: USEPA 2021d

Antelope Valley Air Quality Management District

The AVAQMD covers the western portion of the MDAB and has jurisdiction over the northern, desert portion of the County, including the incorporated cities of Lancaster and Palmdale, Air Force Plant 42, and the southern portion of Edwards Air Force Base (AVAQMD 2016). The AVAQMD operates monitoring stations in the Antelope Valley, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The AVAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Antelope Valley region of the MDAB.

Antelope Valley Air Quality Management District Air Quality Management Plan

The AVAQMD has a variety of air quality management and attainment plans that include control measures and strategies to be implemented to attain the CAAQS and NAAQS in the Antelope Valley. The AVAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

AVAQMD air quality management and attainment plans include the following (AVAQMD 2017):

- 2004 State and Federal Ozone Attainment Plan
- 2006 8-hour Ozone Reasonably Available Control Technology—State Implementation Plan (RACT SIP) Analysis

- 2008 Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)
- 2014 Supplement to the 8-hour Ozone RACT SIP Analysis
- 2015 8-hour RACT SIP Analysis³
- 2017 Federal 75 ppb Ozone Attainment Plan⁴

Antelope Valley Air Quality Management District Rules and Regulations

AVAQMD rules and regulations applicable to this analysis include:

Rule 401—Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

Rule 402—Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403—Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the Project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering or using nontoxic chemical stabilizers to prevent the generation of visible dust plumes, limiting vehicle speeds to 15 miles per hour on unpaved surfaces, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by USEPA.

Rule 431.2—Sulfur Content of Liquid Fuels: This rule limits the sulfur content in diesel and other liquid fuels for the purpose both of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the AVAQMD. The rule also affects diesel fuel supplied for mobile-source applications.

Rule 442—Usage of Solvents: The purpose of this rule is to reduce emissions of VOCs from VOC-containing materials or equipment not subject to the VOC limits in any Regulation XI rule. The rule sets VOC emission limits for facilities subject to the rule.

³ This document builds upon the 2006 and 2014 versions of the RACT SIP Analyses and combined represent a current and complete RACT SIP Analysis.

⁴ This document replaces or updates all previously submitted federal ozone plans in the AVAQMD.

Rule 1107—Coating of Metal Parts and Products: This rule sets VOC emissions limits from the coating of metal parts and products and applies to all metal coatings operations with certain exceptions as defined in the rule.

Rule 1113—Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1121—Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters: This rule specifies NO_x emission limits for natural gas-fired water heaters, with heat input rates less than 75,000 British thermal units per hour.

Rule 1133—Composting and Related Operations: The purpose of this rule is to limit emissions of VOCs and ammonia from composting and related operations; prevent inadvertent decomposition occurring during chipping and grinding operations; and create an emissions-related informational database on composting and related operations through administrative requirements as part of a composting registration program.

Rule 1146.1—Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired boilers, steam generators, and process heaters as defined in this rule.

Rule 1171—Solvent Cleaning Operations: The purpose of this rule is to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting or global-warming compounds from the use, storage and disposal of solvent cleaning materials in solvent cleaning operations and activities. A solvent cleaning operation is solvent cleaning conducted as part of a business.

Rule 1186—PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Rule 1401 and Rule 1402—New Source Review of Toxic Air Contaminants and Control of Toxic Air Contaminants from Existing Sources: SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

Rule 1403—Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Attainment Status

Table 3.4-5, Mojave Desert Air Basin Attainment Status (Los Angeles County), shows the attainment status in the AVAQMD for each criteria pollutant. As shown in Table 3.4-5, the Los Angeles County portion of the MDAB is designated under federal and state ambient air quality standards as nonattainment for ozone and state nonattainment for PM₁₀.

**TABLE 3.4-5
 MOJAVE DESERT AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)**

| Pollutant | National Standards (NAAQS) | California Standards (CAAQS) |
|-------------------------------|--------------------------------------|-------------------------------------|
| Ozone (1-hour standard) | N/A | Non-attainment |
| Ozone (8-hour standard) | Non-attainment–Severe ^b | Non-attainment |
| Carbon Monoxide | Unclassified/Attainment | Attainment |
| Nitrogen Dioxide | Unclassified/Attainment | Attainment |
| Sulfur Dioxide | Unclassified/Attainment | Attainment |
| PM ₁₀ | Unclassified/Attainment | Non-attainment |
| PM _{2.5} | Unclassified/Attainment ^c | Unclassified |
| Lead | Unclassified/Attainment | Attainment |
| Visibility-Reducing Particles | N/A | Unclassified |
| Sulfates | N/A | Attainment |
| Hydrogen Sulfide | N/A | Unclassified |
| Vinyl Chloride ^d | N/A | Unclassified |

NOTES:

CAAQS = California ambient air quality standard; N/A = not applicable; NAAQS = national ambient air quality standard; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller

^a The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

^b West Mojave Desert (Los Angeles County) portion of the basin, where the Draft 2045 CAP would apply, is designated severe nonattainment.

^c The measures and actions set forth in the Draft 2045 CAP would be implemented in an area designated unclassified/attainment in the West Mojave Desert (Los Angeles County) portion of the basin.

^d In 1990, the California Air Resources Board (CARB) identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, CARB does not monitor or make status designations for this pollutant.

SOURCES: AVAQMD 2021; CARB 2021p; USEPA 2021d.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial counties, and addresses regional issues related to transportation, the economy, community development and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation.

Pursuant to Health and Safety Code Section 40460, SCAG is responsible for preparing and approving the portions of the AQMP related to regional demographic projections and integrated regional land use, housing, employment and transportation programs, measures and strategies (SCAQMD 2017). Regarding transportation planning, SCAG adopted the *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016–2040 RTP/SCS) in April 2016,

which contains such regional development and growth forecasts. These regional development and growth forecasts form the basis for the land use and transportation control portions of the 2016 AQMP, and its growth forecasts were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2016 AQMP (SCAQMD 2017). Both the RTP/SCS and the AQMP are based on projections that originate with local jurisdictions. On September 3, 2020, the SCAG Regional Council adopted the 2020–2045 *Regional Transportation Plan/Sustainable Communities Strategy* (2020–2045 RTP/SCS) (SCAG 2020). However, the 2020–2045 RTP/SCS is not yet incorporated into the approved AQMPs for the SCAQMD or AVAQMD.

SCAG is required to adopt an SCS along with its RTP pursuant to Senate Bill (SB) 375 (Chapter 728, Statutes of 2008), which required the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state’s MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG’s target set in 2011 was a per capita reduction of 8 percent for 2020 and 13 percent for 2035 compared to the 2005 baseline (SCAG 2016; CARB 2018). SCAG’s 2016–2040 RTP/SCS meets or exceeds these targets, lowering GHG emissions (below 2005 levels) by eight percent by 2020; 18 percent by 2035; and 21 percent by 2040 (SCAG 2016). Although the RTP/SCS is not focused specifically on air emissions, air quality is affected by the growth projections established in the 2016–2040 RTP/SCS and incorporated in the 2016 AQMP through land use planning and the consequential reduction of emissions from passenger and light-duty vehicles.

Los Angeles County General Plan 2035

The County has authority and responsibility to reduce air pollution through its police power by assessing and mitigating air emissions resulting from its land use decisions. The County also is responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. Consistent with CEQA, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

The General Plan provides the fundamental basis for the County’s land use and development policy, and represents the basic community values, ideals, and aspirations to govern a shared environment through 2035. General goals and policies relevant to the Draft 2045 CAP include those related to infill development (Goal LU 4); vibrant, livable and healthy communities that contain a mix of community-serving uses (Goal LU 5); land use patterns and community infrastructure that promote health and wellness for all neighborhoods (Goal LU 9); well-designed, healthy places (Goal LU 10); interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use (e.g., Goal M 2, Goal M 5) as well as safe spaces for pedestrian use (e.g., Policy M 2.7, Policy M 2.8); sustainable agricultural practices (Goal C/NR 9) and sustainable management of renewable and nonrenewable energy resources (Goal C/NR 12); and others. Approval of the Draft 2045 CAP would result in the revisions to the General Plan’s Air Quality Element set forth in Table 2-1,

Updates to General Plan Air Quality Element, and Table 2-2, General Plan Implementation Program Updates, in Chapter 2, Project Description.

3.4.2 Impact Analysis

3.4.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on air quality if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- c) Expose sensitive receptors to substantial pollutant concentrations; or
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Pursuant to CEQA Guidelines Section 15064.7, a lead agency may consider using significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The measures and actions of the Draft 2045 CAP, if approved, would be implemented within the boundaries of both the AVAQMD and the SCAQMD. SCAQMD has established air quality significance thresholds in its *CEQA Air Quality Handbook*. These thresholds are based on the recognition that the SCAB and MDAB are distinct geographic areas with critical air pollution problems for which ambient air quality standards have been promulgated to protect public health (SCAQMD 1993). Air quality impacts in this EIR are evaluated according to the most recent thresholds adopted by the SCAQMD in connection with its CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent SCAQMD guidance as well as the AVAQMD CEQA and Federal Conformity Guidelines (AVAQMD 2016).⁵ In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.4.2.2 Methodology

The Draft 2045 CAP identifies types of future projects that could be proposed in furtherance of the measures and actions set forth in the Draft 2045 CAP. However, the Draft 2045 CAP is a policy document and does not propose any specific future project. As a result, no emissions calculations were performed for the types of projects that could be facilitated by adoption of the Draft 2045 CAP. This analysis assumes that the California Emissions Estimator Model (CalEEMod), or a

⁵ While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, projects undertaken in furtherance of the Draft 2045 CAP would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects. As a result, lead emissions are not further evaluated.

successor model that is approved for use for CEQA air quality analyses by the SCAQMD and AVAQMD, would be used to calculate construction and operational emissions before any such project would be allowed to proceed.

The SCAQMD provides guidance for conducting the analysis of localized emissions in their *Localized Significance Threshold Methodology* (SCAQMD 2008), which relies on on-site mass emission rate screening tables and project-specific dispersion modeling typically for sites sized one, two, and five acres. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without project-specific dispersion modeling. The screening criteria depend on: (1) the area in which a project is located, (2) the size of a project area, and (3) the distance between a project area and the nearest sensitive receptor. The localized significance thresholds are applicable to NO_x, CO, PM₁₀, and PM_{2.5}. The SCAQMD *Localized Significance Threshold Methodology* (SCAQMD 2008) provides screening localized significance thresholds for projects up to five acres in size located up to 500 meters of the nearest sensitive receptors. Should individual projects exceed applicable screening level thresholds in the SCAQMD *Localized Significance Threshold Methodology* (or successor guidance document), project-specific dispersion modeling may be conducted to demonstrate that no exceedance of the concentration-based thresholds (from which the screening tables are derived) would occur (SCAQMD 2008).⁶

Construction Emissions

Because precise descriptions and locations of activities involving construction approved for site-specific projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantify construction emissions. Thus, construction air quality impact predictions in this analysis are qualitatively based on the possibility for projects facilitated by implementation of Draft 2045 CAP measures to exceed the SCAQMD and/or AVAQMD significance thresholds for construction emissions.

There are six default CalEEMod construction phases commonly used to evaluate construction emissions: demolition, site preparation, grading, building construction, paving, and architectural coating. For example, due to the developed nature of some County parcels, many projects may only require a demolition (existing buildings and asphalt pavement) phase and minor site preparation phase prior to building construction, while some projects may require renovation, which would be less intensive than reconstruction. In addition, some projects may not require any demolition, but would require site preparation and/or grading to prepare the site for development.

Any future construction facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rule 403 and AVAQMD Rule 403 to control dust emissions during any dust-generating activities. SCAQMD Rule 403 and AVAQMD Rule 403 require implementation of various best available fugitive dust control measures for all construction activity sources within its jurisdictional boundaries. Dust control measures include, but are not limited to, maintaining stability of soil through pre-watering of site prior to clearing, grubbing, cut and fill, and earth-moving activities;

⁶ The AVAQMD does not have a similar guidance to that of the SCAQMD's localized significance thresholds.

stabilizing soil during and immediately after clearing, grubbing, cut and fill, and other earth-moving activities; stabilizing backfill during handling and at completion of activity; and pre-watering material prior to truck loading and ensuring that freeboard exceeds six inches. Any future construction involving a large roadway project in the SCAQMD region and located near an area of public exposure or sensitive receptors facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rule 403.2 and implement supplemental dust control measures as applicable in Rule 403.2.

Operational Emissions

Because precise descriptions and locations of activities involving operation approved for site-specific projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantify operational emissions.⁷ Thus, operational air quality impact predictions were qualitatively based on the possibility of projects facilitated by the Draft 2045 CAP measures and actions to exceed the SCAQMD and/or AVAQMD significance thresholds for operational emissions.

There are several categories of emissions in CalEEMod for operations commonly used to evaluate operational emissions: area sources, energy sources, mobile sources, and other sources. Area sources typically include consumer product use (e.g., cleaners, solvents, and other household or institutional cleaning products), architectural coatings, and landscape maintenance equipment. These sources of operational emissions would change in frequency or magnitude over each of the Draft 2045 CAP horizon years of 2030, 2035, and 2045.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Architectural coatings are paints for coating buildings, structures, and roadway striping. Consumer products and architectural coatings generate VOC emissions. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. Landscape equipment may be gasoline fueled and may result in fuel combustion emissions (e.g., VOC, NO_x, CO, PM₁₀, and PM_{2.5} with trace amounts of SO_x). Future operational activities facilitated by the Draft 2045 CAP may also include sources of fugitive dust emissions, such as dust settling on solar panels that could be resuspended during wind events, or the exposure of large areas of bare dirt under and around utility-scale solar farms where dust could be suspended during wind events.

⁷ Section 3.5, *Greenhouse Gas Emissions*, also does not provide GHG emissions quantification of any specific projects that may be facilitated by the Draft 2045 CAP. The GHG analysis includes a 2015 baseline GHG inventory, a 2018 GHG inventory update, and 2030, 2035, and 2045 emissions projections for the unincorporated County-wide level based on growth in population, housing, and employment that is expected for the County through the year 2045. However, unlike GHG emissions, which generate exclusively cumulative impacts, air quality significance thresholds are based on individual project-level emissions. Information is not available to quantify individual project-level air pollutant emissions and such quantification would be speculative at this time.

As represented in CalEEMod, energy sources generate air pollutant emissions from the combustion of natural gas for building heating and cooking (e.g., VOC, NO_x, CO, PM₁₀, and PM_{2.5} with trace amounts of SO_x).

Mobile sources consist of motor vehicles (automobiles and light-duty trucks) traveling to and from the parcels developed or from other development facilitated by Draft 2045 CAP measures and actions. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. Emissions from motor vehicles consist of tailpipe fuel combustion emissions (e.g., VOC, NO_x, CO, PM₁₀, and PM_{2.5} with trace amounts of SO_x) and road dust emissions (e.g., PM₁₀ and PM_{2.5} from brake wear, tire wear and re-entrained road dust). Vehicles operating under alternative fuel or electric battery power would generate reduced or no tailpipe air pollutant emissions compared to gasoline- or diesel-fueled vehicles but would still generate road dust emissions. Road dust emissions may increase from future developments facilitated by the Draft 2045 CAP, such as an increased number of solar farms, that could increase ground disturbance from vehicle trips on paved and unpaved roads.

Due to the general nature of the Draft 2045 CAP, projects facilitated by the Draft 2045 CAP measures and actions could result in additional operational emissions sources that are not listed above or for which specifics are not known. Note that all stationary sources of TACs resulting from projects facilitated by the Draft 2045 CAP would be required to comply with applicable SCAQMD or AVAQMD rules and regulations and may be required to obtain a permit to operate from the SCAQMD or AVAQMD if subject to air quality permitting regulations. Furthermore, any future operational activities facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rule 403 and AVAQMD Rule 403 to control dust emissions during any operational activities that would generate fugitive dust. SCAQMD Rule 403 and AVAQMD Rule 403 require that various best-available fugitive dust control measures be implemented for operational activity sources generating fugitive dust within its jurisdictional boundaries. Dust control measures include those discussed above for construction and other measures specified in the respective air districts' Rule 403, as applicable to the operational activity.

The operation of future projects facilitated by Draft 2045 CAP, measures and actions would be required to comply with applicable SCAQMD and AVAQMD, including those listed above in Section 3.4.1.3.

3.4.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics. As explained in Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*, the potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known for horizon years 2030, 2035, and 2045.

The Draft 2045 CAP details the GHG emissions reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the General Plan's Air Quality Element. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020*. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the land use assumptions identified in the General Plan's Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use-specific projects are proposed as part of the Draft 2045 CAP for any of the horizon years.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures that could result, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of air quality-related impacts. These and other relevant measures and actions include: Action ES1.2 regarding the control of fugitive emissions from active, idle, and abandoned oil wells; Action T6.7 regarding increased use of green hydrogen vehicles throughout the County; Measure T8 regarding the acceleration of freight decarbonization; Measure T9 regarding the expanded use of zero-emission technologies for off-road vehicles and equipment; and Action E3.4 regarding refrigerant management as among the Draft 2045 CAP measures and actions that are particularly relevant to the analysis of impacts to air quality. Projects facilitated by Measure W2, *Increase Organic Waste Diversion*, also could result in odor-related impacts to air quality depending on where any new facilities are proposed to be located. Specific air quality-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

The time frame during which the implementation of these actions and measures would generate (or reduce) air pollutant emissions, and potentially cause impacts exceeding significance thresholds to be exceeded, would depend on the specific timing of implementation timing, as shown in Table 2-11 in Chapter 2, Project Description. The impact would occur immediately and continue through 2045 at the CAP's ultimate horizon year. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets (this is not true for all air quality impacts, as explained in the individual impact analyses). Specific GHG emissions-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG emissions analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that either cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not be otherwise required by law or regulation, and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the projects by the 2045 CAP Checklist. If offsite GHG emissions reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG emissions reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would conflict with or obstruct implementation of applicable air quality plans of either the AVAQMD or the SCAQMD.

Impact 3.4-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would conflict with or obstruct implementation of the applicable air quality plan. (Significant and Unavoidable)

South Coast Air Quality Management District Air Quality Plans

The following analysis addresses the Project's consistency with applicable SCAQMD plans, inclusive of regulatory compliance, for horizon years 2030, 2035, and 2045. The SCAQMD recommends, when determining whether a project is consistent with the 2016 AQMP, that the lead agency assess whether a project would directly obstruct implementation of the plans by impeding SCAQMD's efforts to achieve attainment with respect to any criteria air pollutant for which it is currently not in attainment of the NAAQS and CAAQS (e.g., ozone, PM₁₀, and PM_{2.5}), and whether it is consistent with the demographic and economic assumptions (typically land use related, such as employment and population/residential units) upon which the plan is based.

In accordance with SCAQMD's *CEQA Air Quality Handbook*, the Draft 2045 CAP would have a significant impact relative to criterion a) if it would do any of the following: (i) Result in an increase in the frequency or severity of existing air quality violations; (ii) cause or contribute to new air quality violations; or (iii) delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (Criterion No. 1).

The Draft 2045 CAP would have a significant impact relative to criterion a) if it would exceed the assumptions utilized in preparing the AQMP (Criterion No. 2). The AQMP control measures and related emissions reduction estimates are based upon emissions projections for a future development scenario derived from growth in land use, population, and employment characteristics incorporated into the SCAG RTP. Accordingly, conformance with the AQMP for

development projects is also determined by demonstrating compliance with local land use plans and/or population projections.

The AQMP uses the assumptions and projections of local planning agencies to determine control strategies for regional compliance status. Because the AQMP is based on local land use plans, projects that are deemed consistent with local land use plans are found to be consistent with the AQMP. CEQA requires that general plans and projects be evaluated for consistency with the AQMP using the two key criteria for consistency with the AQMP.

Criterion No. 1

The first criterion evaluates the potential for a project to result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP. The SCAQMD numerical significance thresholds for construction and operational emissions are designed for the analysis of individual projects and not for long-term planning documents, such as the Draft 2045 CAP. Emissions are dependent on the exact size, nature, and location of an individual land use type, combined with reductions in localized impacts from the removal of existing land use types, as applicable (i.e., conversion of light industrial uses).

The Draft 2045 CAP would be implemented through future projects facilitated by the proposed Draft 2045 CAP measures and actions, as well as through the application of the Draft 2045 CAP Consistency Checklist (**Appendix F**) to allow for streamlining of GHG impacts under CEQA. Additional analysis would be needed to determine the impacts of implementation of these measures at specific locations, and future projects would be analyzed at the project level and would be subject to CEQA.

For future projects seeking to use the Draft 2045 CAP Consistency Checklist for CEQA GHG streamlining, the County would determine whether the future project would be consistent with the Draft 2045 CAP. As described above, projects implementing Draft 2045 CAP measures and actions that are deemed consistent with local land use plans would also be consistent with the AQMP, and this applies to each horizon year.

Construction

With respect to the first criterion, as discussed under the analysis for Impact 3.4-3 below, construction of future individual projects in the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions have the potential to create localized air quality impacts through the use of heavy-duty construction equipment. No specific projects are included in the Draft 2045 CAP because no information currently is available regarding specific projects that could be facilitated by the Draft 2045 CAP measures and actions. Other details necessary to provide a meaningful estimate of emissions also cannot be quantified, as specific sites, buildings and facilities to be constructed or modified, construction schedules, and quantities of earthmoving are unknown.

Because this information is unknown, localized emissions modeling is not feasible and would be speculative. New facilities may be facilitated by Draft 2045 CAP measures and actions—such as

new renewable energy facilities (Measure ES3), new or expanded wastewater facilities (Measure E5), new electric vehicle charging station infrastructure (Measure T6), and new or expanded waste processing facilities (Measures W1 and W2)—which may occur as large construction projects and could result in a significant air quality impact from the construction of such future facilities even with implementation of these Draft 2045 CAP measures and actions. In addition, because future projects facilitated by the Draft 2045 CAP could occur close to existing sensitive receptors, construction of projects facilitated by the Draft 2045 CAP measures and actions could generate localized emissions in excess of the concentration-based localized significance thresholds.

Therefore, in response to Criterion No. 1, the construction of future projects facilitated by the Draft 2045 CAP measures and actions for horizon years 2030, 2035, and 2045 could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant. The frequency with which these impacts may be significant and their degree of severity are likely to vary across horizon years 2030, 2035, and 2045, depending on the future projects that may be facilitated by the Draft 2045 CAP measures and actions. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Applicants for future projects facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rules 403 and 403.2 to control dust emissions during any construction activities that generate fugitive dust, utilizing measures specified in these rules as applicable to each construction activity. The frequency and severity of air quality impacts could decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as the County-wide inventory of construction vehicles and equipment turns over and a greater percentage of the inventory meets more stringent emissions standards, such as the CARB Truck and Bus regulation (13 CCR Section 2025) and the CARB emissions standards for off-road diesel construction equipment (13 CCR Section 2449). These changes would reduce the potential for impacts related to NO_x, PM₁₀, and PM_{2.5} exhaust emissions.⁸

Operations

The Draft 2045 CAP is a comprehensive planning document outlining the County's proposed approach to address climate change impacts. Several Draft 2045 CAP measures would actively reduce air pollution from both stationary and mobile pollutant sources as a component of the broader strategies that would reduce energy consumption and vehicle miles traveled (VMT), which include a number of land use strategies such as: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/neighborhood mobility areas (Measures T3 and T4); supporting zero-emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2).

The frequency and severity of air quality impacts related to combustion emissions from operational activities (e.g., NO_x, PM₁₀ exhaust, PM_{2.5} exhaust) would likely decline in future

⁸ PM₁₀ and PM_{2.5} exhaust emissions from diesel-fueled equipment and vehicles includes diesel particulate matter (i.e., DPM).

horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as County-wide operational sources of air pollutants transition to increased electrification, particularly as a result of the CARB Advanced Clean Cars II rule and the increased utility-scale renewable energy. The Advanced Clean Cars II rule states that by 2035, 100 percent of new passenger vehicles, light-duty trucks, and SUVs sold in California must be zero-emission vehicles (ZEVs) (CARB 2023b). As the vehicle fleet turns over and vehicles are replaced with ZEV models, future-horizon-year emissions from mobile sources associated with future development under the Draft 2045 CAP would decrease.

Further, as utility providers increase the percentage of renewably sourced electricity pursuant to the mandated Statewide Renewables Portfolio Standard (RPS) targets (refer to Section 3.9, *Greenhouse Gas Emissions*, of this Revised Draft PEIR for additional information), energy emissions associated with future development under the Draft 2045 CAP would decrease. The RPS targets would result in further additive emissions reductions for the electric vehicle fleet.

Future projects may be facilitated by the Draft 2045 CAP, such as new renewable energy facilities (Measure ES3), new or expanded recycled water facilities (Measure E5), and new or expanded waste processing facilities (Measures W1 and W2). Operation of these future facilities may result in fugitive dust emissions from increased vehicle travel on paved and unpaved roads and windblown dust that has settled on solar panels. Such future projects, if located in areas prone to high wind and/or in areas with exposed surfaces (e.g., unpaved surfaces with limited vegetated ground cover), could be subjected to re-entrained fugitive dust and/or windblown dust.

Applicants for future projects facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rule 403 to control dust emissions during any operational activities that generate fugitive dust, utilizing measures specified in these rules as applicable to each operational activity. All future discretionary projects would be subject to project-level CEQA analysis to determine whether operational air quality emissions are consistent with this indicator.

The location, design, and land use of future projects facilitated by the Draft 2045 CAP in unincorporated areas of the County within the SCAB would incorporate Draft 2045 CAP land use and transportation strategies related to reducing vehicle trips for residents and employees, by (a) focusing increasing residential density near transit and including affordable housing options (Measure T1); and (b) increasing commercial and residential density, with new residential development planned for multi-family dwelling units (Measure T2). This would allow for increased mixed-use density at infill locations and near public transit and may reduce impacts across the horizon years, as combustion emissions (e.g., NO_x, PM₁₀ exhaust, PM_{2.5} exhaust) would be anticipated to decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as County-wide operational sources of operational air pollutants transition to increased electrification, as discussed above.

Future projects facilitated by the Draft 2045 CAP that implement these measures would not conflict with AQMP land use and transportation strategies that are intended to reduce VMT, reduce the frequency or severity of existing air quality violations or new violations, and achieve the timely attainment of air quality standards specified in the AQMP. However, projects

facilitated by the Draft 2045 CAP measures and actions could create significant emissions of criteria pollutants if they would include a sufficiently large number of operational emissions sources or intensive operational uses or processes. For instance, Draft 2045 CAP Measure ES3 would expand local solar power generation on existing and new development throughout the County and at County facilities, and would provide for utility-scale solar and associated infrastructure. Incorporating solar infrastructure on existing or new developments in the County and at County facilities and utilities (Measure ES3) would likely require ongoing maintenance (e.g., for cleaning solar photovoltaic [PV] panels and repairing or replacing PV panels as a result of general wear and malfunctioning components). Operation of these future facilities facilitated by the Draft 2045 CAP measures and actions could result in fugitive dust emissions from vehicle trips on unpaved surfaces, windblown dust settling on solar panels, or other similar types of operational activities. As a result, the Project could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards (AAQS) or emission reductions in the AQMP. Therefore, operation of the Project may be inconsistent with Criterion No. 1 and impacts would be significant.

Criterion No. 2

While striving to achieve the NAAQS for ozone and PM_{2.5} and the CAAQS for ozone, PM₁₀, and PM_{2.5} through a variety of air quality control measures, the 2016 AQMP also accommodates planned growth in the SCAB. With respect to the second criterion for determining consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and growth trends. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of consistency with applicable population, housing, and employment growth projections and appropriate incorporation of AQMP control measures. The following discussion provides an analysis with respect to this criterion.

For future projects located within the SCAB, which is under the jurisdiction of the SCAQMD, the SCAQMD's 2016 AQMP is the applicable air quality plan. The 2016 AQMP relies on emissions forecasts based on the demographic and economic growth projections provided by SCAG's 2016–2040 RTP/SCS in devising its control strategies for reducing emissions of ozone and PM_{2.5} to meet five NAAQS standards (SCAQMD 2017). SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies." (SCAQMD 2017). Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and not to interfere with its attainment (SCAQMD 1993).

Construction

Control Strategies

The SCAB is designated nonattainment for ozone and PM_{2.5} under the CAAQS and NAAQS, nonattainment for lead (Los Angeles County only) under the NAAQS, and nonattainment for PM₁₀ under the CAAQS. The emissions of criteria pollutants associated with future projects facilitated by the Draft 2045 CAP could exceed SCAQMD thresholds for criteria pollutants. Any

future project facilitated by Draft 2045 CAP measures and actions would be required to comply with CARB's requirements to minimize short-term emissions from on-road and off-road diesel equipment, including the ATCM to limit heavy-duty diesel motor vehicle idling to no more than five minutes at any given time, with SCAQMD's regulations such as Rule 403 for controlling fugitive dust, and Rule 1113 for controlling VOC emissions from architectural coatings. Furthermore, as applicable to the type of project, individual projects facilitated by Draft 2045 CAP measures and actions would comply with fleet rules to reduce on-road truck emissions.

Compliance with these measures and requirements would be consistent with and meet or exceed the AQMP compliance requirements for control strategies intended to reduce emissions from construction equipment and activities. Therefore, future construction facilitated by Draft 2045 CAP measures and actions would be consistent with the control strategies of the AQMP and impacts would be less than significant across horizon years 2030, 2035, and 2045. The magnitude of long-term impacts would remain relatively constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because all future projects would be required to comply with AQMP construction control strategies.

Growth Projections

The Draft 2045 CAP would facilitate an increase in short-term employment compared to existing conditions. Although any construction facilitated by the Project would generate construction workers, it would be unlikely to create a substantial number of new construction jobs; construction-related jobs generated by the Project would likely be filled by employees within the construction industry in the greater Los Angeles County region. Construction industry jobs generally have no regular place of business, as construction workers commute to job sites throughout the region, which may change several times a year. Moreover, these jobs would be temporary, lasting only through the duration of construction. This applies to potential impacts across horizon years 2030, 2035, and 2045. Furthermore, although projects facilitated by the Draft 2045 CAP could result in temporary construction jobs, the Draft 2045 CAP would support development already allowed under the General Plan land use and employment assumptions, and housing expectations set forth in the 2021–2029 Housing Element.

As such, the Draft 2045 CAP would not result in an unanticipated increase in jobs outside of what was accounted for and projected within the General Plan. Therefore, the construction jobs generated by projects facilitated by the Project would not conflict with the long-term employment or population projections upon which the AQMPs are based and impacts would be less than significant across horizon years 2030, 2035, and 2045. The magnitude of long-term impacts would remain constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because the Draft 2045 CAP would not result in an unanticipated increase in jobs outside of what was accounted for and projected within the General Plan in all horizon years.

Operations

Control Strategies

Projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County within the SCAB would be required to comply with CARB motor vehicle standards, SCAQMD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and, to the extent applicable, to the growth projections in the 2016–2040 RTP/SCS, which are incorporated into the 2016 AQMP.

In addition, the Draft 2045 CAP outlines several measures and actions that would result in GHG emissions reductions, which would support AQMP consistency for projects facilitated by the Draft 2045 CAP across the horizon years within the incorporated areas of the County. The AQMP's strategies are discussed below with references to relevant Draft 2045 CAP measures.

The AQMP includes land use and transportation strategies from the 2016–2040 RTP/SCS that are intended to reduce VMT and resulting regional mobile-source emissions. The applicable land use strategies included in the Draft 2045 CAP that would reduce emissions are as follows: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/ neighborhood mobility areas (Measures T3 and T4); supporting zero emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2). The applicable transportation strategies include: managing through the Transportation Demand Management (TDM) Program and the Transportation System Management (TSM) Plan including advanced ramp metering; expansion and integration of the traffic synchronization network; and promoting active transportation. The majority of the transportation strategies would be implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, although some can be furthered by individual projects.

The location, design, and land use of future General Plan-anticipated growth in the unincorporated areas of the County would implement Draft 2045 CAP land use and transportation strategies related to reducing vehicle trips for residents and employees by increasing commercial and residential density with new residential development planned for multi-family dwelling units (Measure T2), which would allow for increased mixed-use density at infill locations and near public transit. Draft 2045 CAP Measure T1 focuses primarily on increasing residential density near transit and affordable housing.

Therefore, the Draft 2045 CAP, and projects facilitated by Draft 2045 CAP measures and actions, would not conflict with AQMP land use and transportation strategies that are intended to reduce VMT. Rather, the Draft 2045 CAP includes measures and actions that would support the VMT reduction goals in the SCAB. These measures and actions are expected to reduce VMT across the horizon years 2030, 2035, and 2045, particularly because Draft 2045 CAP Measures T1 and T2 focus growth in residential and employment density near transit and infill locations. The Project, and projects facilitated by Draft 2045 CAP measures and actions across horizon years, would not conflict with the control strategies of the AQMP, and impacts would be less than significant. The magnitude of long-term impacts would remain relatively constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's

increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because all future projects would be required to comply with AQMP operational control strategies.

Growth Projections

The emissions inventory for the SCAB is formed, in part, by existing city and county general plans. The AQMP is based on population, employment and VMT forecasts by SCAG. A project might be in conflict with the AQMP if the development's growth is greater than that anticipated in the local general plan and SCAG's growth projections. Projects facilitated by Draft 2045 CAP measures and actions would be required to undergo subsequent environmental review pursuant to CEQA and would be required to demonstrate compliance with the AQMP. Individual projects also would be required to demonstrate compliance with SCAQMD rules and regulations governing air quality.

The County continues to coordinate with SCAQMD and SCAG to ensure relevant growth projections, land use planning efforts, and local development patterns are accounted for in the regional planning and air quality planning processes. As discussed above, the Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the land use assumptions identified in the General Plan's Land Use Element and 2021–2029 Housing Element. The Draft 2045 CAP itself does not propose any change to existing General Plan land use or zoning designations for any parcel in the unincorporated areas of the County, nor does it propose land use-specific projects. Therefore, the implementation of Draft 2045 CAP measures and actions would not conflict with growth projections and would not conflict with or obstruct the implementation of the applicable air quality plan. Many proposed Draft 2045 CAP measures would reduce emissions, which would avoid impacts related to conflicts with an applicable air quality plan.

The purpose of the Draft 2045 CAP is to reduce GHG emissions across the horizon years. The Draft 2045 CAP's measures and actions encompass the broad categories of climate leadership, transportation, building energy and water, and waste. While these measures may result in short-term increases of air pollutant emissions during construction of new facilities, implementation of the Draft 2045 CAP would result in an overall improvement in regional long-term air quality by establishing a more sustainable framework. The 2016 AQMP was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The Draft 2045 CAP is a policy-level document that does not include site-specific projects. Future projects in the Los Angeles Basin portion of the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions primarily would be located primarily within the urban environment. The Draft 2045 CAP does not propose changes to existing General Plan land use designations. The Draft 2045 CAP would support development already allowed under the General Plan land use assumptions and 2021–2029 Housing Element; and would include measures such as Measure T1, to encourage density near high-quality transit areas, and Measure T2, to develop land use plans addressing jobs/housing balance and increased mixed use to the extent allowed by the General Plan. Therefore, the Draft 2045 CAP would not

result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would not conflict with the 2016 AQMP growth projections.⁹

The 2016 AQMP (including its VMT reduction goals) is based on the growth projections in the 2016–2040 RTP/SCS. The Draft 2045 CAP is based on similar population and employment numbers in the 2045 forecast as compared to those in the 2020–2045 RTP/SCS’s 2045 forecast. As discussed above under control strategies, the Draft 2045 CAP includes measures that are expected to result in substantially less daily VMT and therefore reduce VMT per service population across horizon years 2030, 2035, and 2045. The VMT reduction goals in the Draft 2045 CAP measures would be consistent with the VMT reduction goals and corresponding growth projections of the AQMP and impacts would be less than significant. The magnitude of long-term impacts would remain constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP’s increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because the Draft 2045 CAP would be consistent with the VMT reduction goals and corresponding growth projections of the AQMP for each horizon year.

Antelope Valley Air Quality Management District Air Quality Plan

The following analysis addresses the Project’s consistency with applicable AVAQMD plans, inclusive of regulatory compliance. The AVAQMD CEQA and Federal Conformity Guidelines (August 2016) do not provide a specific methodology for evaluating conflicts with an applicable air quality plan; therefore, the same approach used for the SCAQMD is used for this EIR. Thus, the Draft 2045 CAP would have a significant impact relative to criterion a) if it would do any of the following: (i) Result in an increase in the frequency or severity of existing air quality violations; (ii) cause or contribute to new air quality violations; or (iii) delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (Criterion No. 1). The Draft 2045 CAP would have a significant impact relative to criterion a) if it would exceed the assumptions utilized in preparing the AQMP (Criterion No. 2).

Criterion No. 1

The AVAQMD numerical significance thresholds for construction and operational emissions are designed for the analysis of individual projects and not for long-term planning documents, such as the Draft 2045 CAP. Emissions are dependent on the exact size, nature, and location of an individual land use type, combined with reductions in localized impacts from the removal of existing land use types, as applicable (i.e., conversion of light industrial uses).

The Draft 2045 CAP would be implemented through future projects facilitated by the proposed Draft 2045 CAP measures and actions, as well as through the application of the Draft 2045 CAP Consistency Checklist (Appendix F) to allow for streamlining of GHG impacts under CEQA.

⁹ The SCAG 2016–2040 RTP/SCS forecasts a 2040 population of 1,273,700 persons in unincorporated Los Angeles County (see Demographics & Growth Forecast Appendix [SCAG 2016]). The 2021–2029 Housing Element forecast a 2045 population of 1,258,000 (see Section 4.14 of Los Angeles County 2021). Given that the projected population in 2045 under the Draft 2045 CAP would be less than the projected population in 2040 in the SCAG 2016–2040 RTP/SCS, the Draft 2045 CAP would not conflict with the growth projections.

Additional analysis would be needed to determine the impacts of implementation of these measures at specific locations, and future projects would be analyzed at the project level and would be subject to CEQA, as required.

For future projects seeking to use the Draft 2045 CAP Consistency Checklist for CEQA GHG streamlining, the County would determine whether the future project would be consistent with the Draft 2045 CAP. As described above, projects implementing Draft 2045 CAP measures and actions that are deemed consistent with local land use plans would also be consistent with the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan.

Construction

With respect to the first criterion, as discussed under the analysis for Impact 3.4-3 below, construction of future individual projects in the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions have the potential to create localized air quality impacts through the use of heavy-duty construction equipment. No specific projects are included in the Draft 2045 CAP because no information currently is available regarding specific projects that could be facilitated by the Draft 2045 CAP measures and actions. Other details necessary to provide a meaningful estimate of emissions also cannot be quantified, as specific sites, buildings and facilities to be constructed or modified, construction schedules, and quantities of earthmoving are unknown.

Because this information is unknown, localized emissions modeling is not feasible and would be speculative. New facilities may be facilitated by Draft 2045 CAP measures and actions, such as new renewable energy facilities including utility-scale solar projects and associated infrastructure in the Antelope Valley (Measure ES3), new or expanded recycled water facilities (Measure E5), new electric vehicle charging station infrastructure (Measure T6), and new or expanded waste processing facilities (Measures W1 and W2), which may occur as large construction projects and could result in a significant air quality impact from the construction of such future facilities even with implementation of these Draft 2045 CAP measures. In addition, because future projects facilitated by the Draft 2045 CAP measures and actions could occur close to existing sensitive receptors, construction of projects facilitated by the Draft 2045 CAP measures and actions could generate localized emissions that exceed the concentration-based ambient air quality standards.

Therefore, in response to Criterion No. 1, the construction of future projects facilitated by the Draft 2045 CAP measures and actions for horizon years 2030, 2035, and 2045 could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant. The frequency with which these impacts may be significant and their degree of severity are likely to vary across horizon years 2030, 2035, and 2045, depending on the future projects that may be facilitated by the Draft 2045 CAP measures and actions. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Applicants for future projects facilitated by the Draft 2045 CAP would be required to comply with AVAQMD Rule 403 to control dust emissions during any construction activities that generate fugitive dust, utilizing measures specified in the rule as applicable to each construction activity.

The frequency and severity of air quality impacts could decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as the County-wide inventory of construction vehicles and equipment turns over and a greater percentage of the inventory meets more stringent emissions standards, such as the CARB Truck and Bus regulation (13 CCR Section 2025) and the CARB emissions standards for off-road diesel construction equipment (13 CCR Section 2449). These changes would reduce the potential for impacts related to NO_x, PM₁₀, and PM_{2.5} exhaust emissions.

Operations

The Draft 2045 CAP is a comprehensive planning document outlining the County's proposed approach to address climate change impacts. Several Draft 2045 CAP measures would actively reduce air pollution from both stationary and mobile pollutant sources as a component of the broader strategies that would reduce energy consumption and VMT, which include a number of land use strategies such as: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/neighborhood mobility areas (Measures T3 and T4); supporting zero emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2).

The frequency and severity of air quality impacts related to combustion emissions from operational activities (e.g., NO_x, PM₁₀ exhaust, PM_{2.5} exhaust) would likely decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as County-wide operational sources of air pollutants transition to increased electrification, particularly as a result of the CARB Advanced Clean Cars II rule. This rule states that by 2035, 100 percent of new passenger vehicles, light-duty trucks, and SUVs sold in California must be ZEVs (CARB 2023b). As the vehicle fleet turns over and vehicles are replaced with ZEV models, future horizon year emissions from mobile sources associated with future development under the Draft 2045 CAP would decrease.

Further, as utility providers increase the percentage of renewably sourced electricity pursuant to the mandated RPS targets (refer to Section 3.9, *Greenhouse Gas Emissions*, of this Revised Draft PEIR for additional information), energy emissions associated with future development under the Draft 2045 CAP would decrease. This would result in further additive emissions reductions for the electric vehicle fleet.

Future projects may be facilitated by the Draft 2045 CAP, such as new renewable energy facilities (Measure ES3) including utility-scale solar projects and associated infrastructure in the Antelope Valley, new or expanded recycled water facilities (Measure E5), and new or expanded waste processing facilities (Measures W1 and W2). Operation of these future facilities could result in fugitive dust emissions from increased vehicle travel on paved and unpaved roads and windblown dust that has settled on solar panels. Such future projects, if located in areas prone to high wind and/or in areas with exposed surfaces (e.g., unpaved surfaces with limited vegetated ground cover), could be subjected to re-entrained fugitive dust and/or windblown dust.

Applicants for future projects facilitated by the Draft 2045 CAP would be required to comply with AVAQMD Rule 403 to control dust emissions during any operational activities that generate fugitive dust, utilizing measures specified in these rules as applicable to each operational activity. All future discretionary projects would be subject to project-level CEQA analysis to determine whether operational air quality emissions are consistent with this criterion.

The location, design, and land use of future projects facilitated by the Draft 2045 CAP in the unincorporated areas of the County within the Antelope Valley Air Basin (AVAB) would incorporate Draft 2045 CAP land use and transportation strategies related to reducing vehicle trips for residents and employees, by (a) focusing increasing residential density near transit and including affordable housing options (Measure T1); and (b) increasing commercial and residential density, with new residential development planned for multi-family dwelling units (Measure T2). This would allow for increased mixed-use density at infill locations and near public transit and may reduce impacts across the horizon years, as combustion emissions (e.g., NO_x, PM₁₀ exhaust, PM_{2.5} exhaust) would be anticipated to decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as County-wide operational sources of operational air pollutants transition to increased electrification, as discussed above.

Future projects facilitated by the Draft 2045 CAP that implement these measures would not conflict with AQMP land use and transportation strategies that are intended to reduce VMT, reduce the frequency or severity of existing air quality violations or new violations, and achieve the timely attainment of air quality standards specified in the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan. However, projects facilitated by the Draft 2045 CAP measures and actions could create significant emissions of criteria pollutants if they would include a sufficiently large number of operational emissions sources or intensive operational uses or processes. For instance, Draft 2045 CAP Measure ES3 would expand local solar power generation on existing and new development throughout the County and at County facilities, the operation of which could result in fugitive dust emissions from vehicle trips on unpaved surfaces, windblown dust settling on solar panels, or other similar types of operational activities. Therefore, operation of the Project may be inconsistent with Criterion No. 1 and impacts would be significant.

Criterion No. 2

While striving to achieve the NAAQS for ozone and the CAAQS for ozone and PM₁₀ through a variety of air quality control measures, the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan and AVAQMD rules and regulations accommodates planned growth in the AVAB. With respect to the second criterion for determining consistency with air quality plan growth assumptions, the projections in the AVAQMD air quality plans for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and growth trends. Determining whether or not a project exceeds the assumptions reflected in the AVAQMD air quality plans involves the evaluation of consistency with applicable population, housing, and employment growth projections and appropriate incorporation of AQMP control measures. The following discussion provides an analysis with respect to this criterion.

For future projects located within the AVAB, which is under the jurisdiction of the AVAQMD, the AVAQMD 2015 8-hour RACT SIP Analysis and 2017 Federal 75 ppb Ozone Attainment Plan are the applicable air quality plans. The AVAQMD air quality plans rely on emissions forecasts based on the demographic and economic growth projections provided by SCAG's 2016–2040 RTP/SCS in devising its control strategies for reducing emissions to meet the NAAQS standards (AVAQMD 2017). The AVAQMD incorporates “VMT and speed distribution data... from the 2016 RTP/SCS adopted by SCAG” (AVAQMD 2017).

Construction

Control Strategies

The AVAB is designated nonattainment for ozone under the NAAQS and nonattainment for ozone and PM₁₀ under the CAAQS. The emissions of criteria pollutants associated with future projects facilitated by the Draft 2045 CAP could exceed AVAQMD thresholds for criteria pollutants. Any future project facilitated by Draft 2045 CAP measures and actions across horizon years 2030, 2035, and 2045 would be required to comply with CARB's requirements to minimize short-term emissions from on-road and off-road diesel equipment, including the ATCM to limit heavy-duty diesel motor vehicle idling to no more than five minutes at any given time, with AVAQMD's regulations such as Rule 403 for controlling fugitive dust, and Rule 1113 for controlling VOC emissions from architectural coatings. Furthermore, as applicable to the type of project, individual projects facilitated by Draft 2045 CAP measures and actions would comply with fleet rules to reduce on-road truck emissions.

Compliance with these measures and requirements would be consistent with and meet or exceed the requirements of the AVAQMD air quality plans for control strategies intended to reduce emissions from construction equipment and activities. Therefore, future construction facilitated by the Draft 2045 CAP measures and actions would be consistent with the control strategies of the AVAQMD air quality plans and impacts would be less than significant across horizon years 2030, 2035, and 2045. The magnitude of long-term impacts would remain relatively constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because all future projects would be required to comply with AVAQMD construction control strategies.

Growth Projections

The Draft 2045 CAP would facilitate an increase in short-term employment compared to existing conditions. Although any construction facilitated by the Project would generate construction workers, it would be unlikely to create a substantial number of new construction jobs; construction-related jobs generated by the Project would likely be filled by employees within the construction industry within the greater Los Angeles County region and nearby population centers in counties adjacent to the Antelope Valley. Construction industry jobs generally have no regular place of business, as construction workers commute to job sites throughout the region, which may change several times a year. Moreover, these jobs would be temporary, lasting only through the duration of construction. This applies to potential impacts across horizon years 2030, 2035, and 2045. Furthermore, although projects facilitated by the Draft 2045 CAP could result in temporary construction jobs, the Draft 2045 CAP would support development already allowed

under the General Plan land use and employment assumptions, and housing expectations set forth in the 2021–2029 Housing Element.

As such, the Draft 2045 CAP would not result in an unanticipated increase in jobs outside of what was accounted for and projected within the General Plan. Therefore, the construction jobs generated by projects facilitated by the Project would not conflict with the long-term employment or population projections upon which the AVAQMD air quality plans are based and impacts would be less than significant across horizon years 2030, 2035, and 2045. The magnitude of long-term impacts would remain constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP’s increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because the Draft 2045 CAP would not result in an unanticipated increase in jobs outside of what was accounted for and projected within the General Plan in all horizon years.

Operations

Control Strategies

Projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County within the AVAB would be required to comply with CARB motor vehicle standards, AVAQMD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and, to the extent applicable, to the growth projections in the 2016–2040 RTP/SCS, which are incorporated into the AVAQMD air quality plans.

In addition, the Draft 2045 CAP outlines several measures and actions that would result in GHG emissions reductions, which would support consistency with AVAQMD air quality plans for projects facilitated by the Draft 2045 CAP across the horizon years within the incorporated areas of the County. The AVAQMD air quality plans emissions reductions strategies are discussed below with references to relevant Draft 2045 CAP measures.

The AVAQMD air quality plans include land use and transportation strategies from the 2016–2040 RTP/SCS that are intended to reduce VMT and resulting regional mobile-source emissions. The applicable land use strategies included in the Draft 2045 CAP that would reduce emissions are as follows: planning for growth around livable corridors (addressed in Draft 2045 CAP Measures T1 and T2); limit parking (Measure T5); providing more options for short trips/neighborhood mobility areas (Measures T3 and T4); supporting zero emission vehicles and expanding vehicle charging stations (Measures T6–T9); and supporting local sustainability planning (Measures ES1–ES5, E1–E6, and W1–W2).

The location, design, and land use of future General Plan–anticipated growth in the unincorporated areas of the County would implement Draft 2045 CAP land use and transportation strategies related to reducing vehicle trips for residents and employees by increasing commercial and residential density with new residential development planned for multi-family dwelling units (Measure T2), which would allow for increased mixed-use density at infill locations and near public transit. Draft 2045 CAP Measure T1 focuses primarily on increasing residential density near transit and affordable housing.

Therefore, the Draft 2045 CAP, and projects implementing Draft 2045 CAP measures and actions, would not conflict with land use and transportation strategies in the AVAQMD air quality plans that are intended to reduce VMT. Rather, the Draft 2045 CAP includes measures and actions that would support the VMT reduction goals in the AVAB. These measures and actions are likely to result in greater reductions in VMT across the horizon years 2030, 2035, and 2045, particularly because Draft 2045 CAP Measures T1 and T2 focus growth in residential and employment density near transit and infill locations. The Project, and projects facilitating Draft 2045 CAP measures and actions across the horizon years, would not conflict with the control strategies of the AVAQMD air quality plans and impacts would be less than significant. The magnitude of long-term impacts would remain relatively constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because all future projects would be required to comply with AVAQMD operational control strategies.

Growth Projections

The emissions inventory for the AVAB is formed, in part, by existing city and county general plans and population, employment and VMT forecasts by SCAG. A project might be in conflict with the applicable air quality plan if the development's growth is greater than that anticipated in the local general plan and SCAG's growth projections. Projects facilitated by Draft 2045 CAP measures and actions would be required to undergo subsequent environmental review pursuant to CEQA and would be required to demonstrate compliance with the AVAQMD air quality plans. Individual projects also would be required to demonstrate compliance with AVAQMD rules and regulations governing air quality.

The County continues to coordinate with AVAQMD and SCAG to ensure relevant growth projections, land use planning efforts, and local development patterns are accounted for in the regional planning and air quality planning processes. As discussed above, the Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the land use assumptions identified in the General Plan's Land Use Element and 2021–2029 Housing Element. The Draft 2045 CAP itself does not propose any change to existing General Plan land use or zoning designations for any parcel in the unincorporated areas of the County, nor does it propose land use specific projects. Therefore, the implementation of Draft 2045 CAP measures and actions would not conflict with growth projections and would not conflict with or obstruct the implementation of the applicable air quality plan. Many proposed Draft 2045 CAP measures would reduce emissions, which would avoid impacts related to conflicts with an applicable air quality plan.

The purpose of the Draft 2045 CAP is to reduce GHG emissions across the horizon years. The Draft 2045 CAP's measures and actions encompass the broad categories of climate leadership, transportation, building energy and water, and waste. While these measures may result in short-term increases of air pollutant emissions during construction of new facilities, implementation of the Draft 2045 CAP would result in an overall improvement in regional long-term air quality by establishing a more sustainable framework. The AVAQMD air quality plans were prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of AVAQMD, return clean air to the region, and minimize the impact on the economy. Projects that

are considered consistent with the AVAQMD air quality plans would not interfere with attainment because this growth is included in the projections used in the formulation of the AVAQMD air quality plans.

The Draft 2045 CAP is a policy-level document that does not include site-specific projects. Because the Draft 2045 CAP does not propose changes to existing General Plan land use designations, the Draft 2045 CAP would support development already allowed under the General Plan land use assumptions and 2021–2029 Housing Element; and would include measures, such as Measure T1 to encourage density near high-quality transit areas and Measure T2 to develop land use plans addressing jobs/housing balance and increased mixed use to the extent allowed by the general Plan. Therefore, the Draft 2045 CAP would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would not conflict with the growth projections.¹⁰

The AVAQMD air quality plans (including its VMT reduction goals) are based on the growth projections in the 2016–2040 RTP/SCS. The Draft 2045 CAP is based on similar population and employment numbers in the 2045 forecast as compared to those in the 2020–2045 RTP/SCS's 2045 forecast. As discussed above under control strategies, the Draft 2045 CAP includes measures that are expected to result in substantially less daily VMT and therefore reduce VMT per service population across horizon years 2030, 2035, and 2045. The VMT reduction goals in the Draft 2045 CAP measures would be consistent with the VMT reduction goals and corresponding growth projections of the AQMP and impacts would be less than significant. The magnitude of long-term impacts would remain constant over time, even though more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, because the Draft 2045 CAP would be consistent with the VMT reduction goals and corresponding growth projections of the AVAQMD for each horizon year.

Summary

The Draft 2045 CAP identifies strategies, measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. The GHG emissions reduction goals of the Draft 2045 CAP were informed by the development assumptions of the adopted 2021–2029 Housing Element and the General Plan buildout conditions. The 2021–2029 Housing Element Program EIR concluded that, while the 2021–2029 Housing Element was consistent with the applicable air quality plan policies of the applicable air quality plans aimed at reducing air emissions and would not increase population or employment in the County, the 2021–2029 Housing Element would have the potential to exceed the applicable criteria pollutant mass daily thresholds. As the Draft 2045 CAP would not alter the development assumptions of the adopted

¹⁰ The SCAG 2016–2040 RTP/SCS forecasts a 2040 population of 1,273,700 persons in unincorporated Los Angeles County (see Demographics & Growth Forecast Appendix [SCAG 2016]). The 2021–2029 Housing Element forecast a 2045 population of 1,258,000 (see Section 4.14 of Los Angeles County 2021). Given that the projected population in 2045 under the Draft 2045 CAP would be less than the projected population in 2040 in the SCAG 2016–2040 RTP/SCS, the Draft 2045 CAP would not conflict with the growth projections.

2021–2029 Housing Element, the Project would not be the cause of or alter the significant and unavoidable impact identified in the 2019 Program EIR.

As discussed above in response to Criterion No. 1, the construction of future projects facilitated by the Draft 2045 CAP measures and actions could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant. The frequency with which these impacts may be significant and their degree of severity are likely to vary across horizon years 2030, 2035, and 2045, depending on the future projects that may be facilitated by the Draft 2045 CAP measures and actions.

The operation of future projects facilitated by the Draft 2045 CAP that would implement the Draft 2045 CAP measures and actions would not conflict with the applicable SCAQMD and AVAQMD air quality plan land use and transportation strategies that are intended to reduce VMT; however, these projects may increase the frequency or severity of existing air quality violations or new violations, and may prevent the achievement of the timely attainment of air quality standards specified in the applicable air quality plan. As such, the Draft 2045 CAP would result in a significant impact related to a conflict or obstruction of implementation of applicable air quality plans related to Criterion No. 1.

Measures and actions are included in the Draft 2045 CAP that would reduce air pollutant emissions, likely to greater effect across horizon years 2030, 2035, and 2045. Nonetheless, the Draft 2045 CAP could conflict with Criterion No. 1 (numerical significance thresholds), causing a significant impact to result. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. The Draft 2045 CAP would not conflict with Criterion No. 2.

Mitigation Measures 3.4-1 and 3.4-2 would reduce this impact. Mitigation measures would apply only if specific projects have potentially significant impacts after compliance with independently enforceable air quality regulations that reduce impacts.

Mitigation Measure 3.4-1: Construction Emissions. If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the applicable air quality management district (AQMD) adopted thresholds of significance, the lead agency shall require applicants for new projects facilitated by the Draft 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:

- When wind gusts exceed 25 miles per hour, cease all active construction activities or follow the applicable guidelines outlined in Table 3 of SCAQMD Rule 403 or Sections (C)(10) through (C)(14) of AVAQMD Rule 403.
- Use construction equipment rated by the U.S. Environmental Protection Agency (USEPA) as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower, as commercially available.

- Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limit nonessential idling of construction equipment to no more than five consecutive minutes.
- Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- Water all active construction areas at least three times daily or four times daily if needed to control dust emissions. Watering should be sufficient to prevent airborne visible dust from leaving the site. Where local water supplies are not available in sufficient quantities within unincorporated areas of the County, use nontoxic chemical soil stabilizers or dust suppressants to control dust emissions in sufficient amounts to prevent airborne visible dust from leaving the site.
- Increase watering frequency and/or application frequency of nontoxic chemical soil stabilizers or dust suppressants whenever wind speeds exceed 25 miles per hour. Reclaimed water shall be used whenever possible.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
- Pave, apply water three times daily or as often as necessary to control dust, or where local water supplies are not available in sufficient quantities within unincorporated areas of the County, apply (nontoxic) soil stabilizers or dust suppressants on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust.
- Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Project site, or as often as needed, to keep streets free of visible soil material.
- Where local water supplies are not available in sufficient quantities within unincorporated areas of Los Angeles County, hydroseed or apply nontoxic chemical soil stabilizers or dust suppressants to inactive construction areas.
- Enclose, cover, water three times daily, or apply nontoxic chemical soil stabilizers or dust suppressants to exposed stockpiles (dirt, sand, etc.).
- In areas with existing vegetation, install the facility components with minimal disturbance. Take all necessary precautions to not use vehicles or machinery for grading or alter the existing grade in these areas.
- Design project facilities to limit ground disturbance or grading to only the access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. Ensure that the facilities comply with all applicable grading standards.

- Site utility-scale renewable energy projects in a way that minimizes site disturbance, such as grading, brush clearance, and other forms of earthwork.
- In areas with existing vegetation, install facility components with minimal disturbance. Take all necessary precautions to avoid using vehicles or machinery for grading, or altering the existing grade in these areas.
- Establish and maintain a landscaped buffer:
 - Maintain a landscaped area at least 10 feet deep along any facility perimeter fencing and between such fencing and any public right-of-way or adjacent property with an existing residential or agricultural use.
 - Establish the landscaped area in such manner that adequate corner sight distance is maintained from all access roads to the public right-of-way to the satisfaction of the County of Los Angeles Department of Public Works.
 - Maintain the landscaped area throughout the life of the facility.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. If, during subsequent project-level environmental review, operational fugitive dust emissions are determined to have the potential to be significant, the lead agency shall require applicants for new projects facilitated by the Draft 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during operational activities. Mitigation measures that may be identified during the environmental review include, but are not limited to, the following:

- Unpaved main access roads for operational vehicle trips shall be paved or effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air Resources Board–approved soil stabilizers, and that shall not increase any other environmental impacts, including loss of vegetation.
- All other unpaved roads shall be stabilized using water or soil stabilizers so that vehicle travel on these roads does not cause visible dust plumes.
- Gravel pads, grizzly strips, or other material track-out control methods approved for use by the local AQMD shall be installed where vehicles enter or exit unpaved roads onto paved roadways.
- Traffic speeds on unpaved roads shall be limited to no more than 10 miles per hour, except that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. Traffic speed signs shall be displayed prominently at all site entrances and at egress point(s) from the central maintenance complex.
- Where acceptable to the local and County fire departments, all unpaved, non-road surfaces that may potentially be disturbed shall be covered with a minimum of 3 inches of mulch. Where acceptable to the local and County fire departments, vegetation shall be maintained at 6 inches height.
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least 6 inches of freeboard (minimum vertical distance between top of the

load and top of the trailer) in accordance with California Vehicle Code Section 23114.

- A fugitive dust control plan that includes a dust plume response plan shall be prepared for review and approval by applicable agencies before any earthwork activities.
- Where acceptable to the local and County fire departments, weed control shall be accomplished by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- Existing vegetation may be mowed, but removal of existing vegetation root systems shall be prohibited, except where necessary for construction of access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County.
- Continuous particulate monitors shall be installed at the discretion of the lead agency.

Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. If, during subsequent project-level environmental review, it is determined that VOC emissions impacts may be significant, the lead agency shall require Super-Compliant VOC-content architectural coatings (0 grams per liter to less than 10 grams per liter VOC) to be used during construction and operational application of paints and other architectural coatings to reduce ozone precursors. If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during days when the USEPA, CARB, or SCAQMD has forecasted the Air Quality Index for ozone to be greater than 100 for the project location.

Significance after Mitigation: Future projects in the unincorporated County that would implement Draft 2045 CAP measures and actions would result in a significant and unavoidable impact related to Criterion No. 1 regarding whether the Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would conflict with or obstruct the implementation of the applicable air quality plan. Implementation of Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of construction and operational emissions. However, even with the implementation of the measures, these impacts are not accurately quantifiable at this time and may not be reduced to below the thresholds. As a result, the impact under Criterion No. 1 for construction and operation would remain significant and unavoidable. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level, and feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP measures and actions. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Because the exact specifications for projects that may be facilitated by the Draft 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045.

Criterion b) Whether the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Impact 3.4-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard. (Significant and Unavoidable)

Implementation of Draft 2045 CAP measures and actions could result in construction and operational emissions that may cause a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment. The SCAB is designated under federal and state ambient air quality standards as nonattainment for ozone and PM_{2.5} and state nonattainment for PM₁₀. MDAB is designated under federal and state ambient air quality standards as nonattainment for ozone and state nonattainment for PM₁₀. Based on the most recently adopted significance thresholds in the SCAQMD *CEQA Air Quality Handbook* and the AVAQMD CEQA and Federal Conformity Guidelines, the Draft 2045 CAP would result in a significant impact of a federal or state nonattainment pollutant if emissions would exceed the values shown in **Table 3.4-6, Criteria Pollutant Emissions Significance Thresholds—Los Angeles County**.

**TABLE 3.4-6
CRITERIA POLLUTANT EMISSIONS SIGNIFICANCE THRESHOLDS—LOS ANGELES COUNTY**

| Phase | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
|---|-----|-----------------|-----|-----------------|------------------|-------------------|
| South Coast Air Basin (Los Angeles County); Pounds per Day | | | | | | |
| Construction | 75 | 100 | 550 | 150 | 150 | 55 |
| Operations | 55 | 55 | 550 | 150 | 150 | 55 |
| Antelope Valley Air Basin (Los Angeles County); Pounds per Day | | | | | | |
| Construction | 137 | 137 | 548 | 137 | 82 | 65 |
| Operations | 137 | 137 | 548 | 137 | 82 | 65 |
| Antelope Valley Air Basin (Los Angeles County); Tons per Year | | | | | | |
| Construction | 25 | 25 | 100 | 25 | 15 | 12 |
| Operations | 25 | 25 | 100 | 25 | 15 | 12 |

NOTES: CO = carbon monoxide; NO_x = nitrogen oxides; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller; SO_x = sulfur oxides; VOC = volatile organic compounds

SOURCES: SCAQMD 2019; AVAQMD 2016.

Construction Emissions

Emissions of ozone precursors, such as VOC and NO_x, are produced from the use of on-road and off-road motorized vehicles and heavy-duty construction equipment associated with construction activities. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Localized concentrations of construction-generated TAC emissions, including emissions of diesel particulate matter from diesel-powered equipment, can increase health risk for

nearby sensitive receptors. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions.

Implementation of several of the Draft 2045 CAP measures would reduce construction emissions resulting from projects facilitated by the Draft 2045 CAP measures and actions within the unincorporated areas of the County. The Draft 2045 CAP transportation measures would expand the use of zero-emission technologies for off-road vehicles and equipment, per Measure T9, which would reduce construction emissions. However, Draft 2045 CAP measures and actions may facilitate new facilities and projects such as building electrification (Measures E1 and E2), new renewable energy facilities (Measure ES3), energy storage facilities (Measure ES4), building retrofits for energy efficiency (Measure E4), new or expanded recycled water facilities (Measure E5), new electric vehicle charging station infrastructure (Measure T6), new or expanded waste processing facilities (Measures W1 and W2), and demolition of impervious surfaces and planting trees (Measure A3). These measures and actions may result in construction activities that cause an increase in temporary air pollutant emissions that could vary across horizon years 2030, 2035, and 2040.

The frequency with which these impacts may be significant and their degree of severity are likely to vary across the horizon years, depending on the future projects that may be facilitated by the Draft 2045 CAP measures and actions. The frequency and severity of air quality impacts could decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as County-wide construction vehicle and equipment inventories turn over and a greater percentage of the inventory meets more stringent emissions standards, such as the CARB Truck and Bus regulation (13 CCR Section 2025) and the CARB emissions standards for off-road diesel construction equipment (13 CCR Section 2449). These changes would reduce the potential for impacts related to NO_x, PM₁₀, and PM_{2.5} exhaust emissions.

The size and intensity of any future project facilitated by Draft 2045 CAP measures and actions would dictate whether the quantity of air pollutant emissions during construction are above or below the thresholds of significance. New facilities may be facilitated by Draft 2045 CAP measures and actions, such as new renewable energy facilities including County facilities and utility-scale solar and associated infrastructure (Measure ES3), new or expanded recycled water facilities (Measure E5), new electric vehicle charging station infrastructure (Measure T6), and new or expanded waste processing facilities (Measures W1 and W2), which may occur as large construction projects. There is also the potential that the cumulative impact of multiple small-scale projects, such as multiple projects for building retrofits (Measure E4) and the demolition of impervious surfaces and planting of trees (Measure A3), could be significant from the construction of such future facilities and projects even with implementation of these Draft 2045 CAP measures.

Any future project developed within the County facilitated by Draft 2045 CAP measures and actions would be required to comply with SCAQMD and AVAQMD rules and regulations as well as conduct their own applicable CEQA analysis. Significance determinations would be based on the individual project specifics. Furthermore, future construction activities associated with the

Draft 2045 CAP would be required to comply with the CARB Air Toxics Control Measure, which limits diesel-powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle regulation, CARB Truck and Bus regulation, and CARB ACT regulation, which all require construction equipment and vehicle fleet operators to repower or replace higher-emitting equipment with less polluting models, including zero- and near-zero-emissions on-road truck technologies as they become developed and commercially available. Additionally, construction of projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with SCAQMD and AVAQMD rules and regulations including Rule 403 for the control of fugitive dust and Rule 1113 for the control of VOC emissions from architectural coatings (please note that both air districts share the same numbering system for these rules). Any large roadway construction project facilitated by Draft 2045 CAP measures and actions in the SCAQMD would also be required to comply with SCAQMD Rule 403.2, which specifies additional fugitive dust controls. Mandatory compliance with these CARB and SCAQMD rules and regulations would reduce emissions, particularly for NO_x, PM₁₀, and PM_{2.5}, during future construction activities of future projects facilitated by the Draft 2045 CAP.

Even with mandatory compliance with CARB, SCAQMD, and AVAQMD rules regulations, some future projects associated with implementation of Draft 2045 CAP measures and actions could be large enough in scale and/or intensity such that many pieces of heavy-duty construction equipment and/or heavy-duty trucks may be required and that construction period emissions could exceed the significance thresholds. Therefore, construction activities associated with future projects facilitated by Draft 2045 CAP measures and actions could result in significant criteria pollutant air quality impacts. These impacts apply to each horizon year; however, the frequency and severity to which these impacts may be significant is likely to vary across horizon years 2030, 2035, and 2045, as explained above, depending on the future projects that may be facilitated by the Draft 2045 CAP measures and actions. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Operational Emissions

Implementation of the Draft 2045 CAP measures and actions could affect operational criteria pollutant emissions resulting from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated County portion in the SCAB and MDAB from vehicle trips traveling within the County, energy sources such as natural gas combustion, and area sources such as landscaping equipment and consumer products usage.

Several Draft 2045 CAP measures promote additional transit facilities and operations as well as pedestrian and bicycle facilities to reduce vehicle fuel use by encouraging a shift in the mode of transportation that people use. Draft 2045 CAP measures T3 and T4 would expand bicycle and pedestrian infrastructure and encourage transit, active transportation, and alternative modes of transportation. Draft 2045 CAP measures W1 and W2 would divert organic waste and recyclable materials from landfills, and these measures may result in new or expanded waste facilities such as composting facilities or recycling centers that have the potential to produce odor, dust, and

other emissions during operation; but the increased waste diversion from landfills to potentially closer facilities, such as recycling centers, would reduce regional Countywide vehicle trips and VMT. These reductions may vary across horizon years 2030, 2035, and 2045 as these measures are implemented. Any projects facilitated by Draft 2045 CAP measures and actions would not represent a change in local land use policies.

The Draft 2045 CAP includes measures that promote mixed-use and transit-oriented development in city centers, consistent with existing land use plans. While implementation of the Draft 2045 CAP measures would reduce overall Countywide vehicle trips and VMT, the reduction would not necessarily occur evenly throughout the unincorporated County areas. The Draft 2045 CAP would encourage mixed-use development (Measure T2) and place residential density near transit (Measure T1), which would reduce VMT within the County. The Draft 2045 CAP itself does not propose any change to existing General Plan land use or zoning designations for any parcel in the unincorporated areas of the County. Implementation of the Draft 2045 CAP relies on already-adopted General Plan land use and zoning designations to achieve densification and associated reductions in regional Countywide vehicle trips and VMT. In other words, local increases in density could occur with or without adoption of the Draft 2045 CAP based on the existing General Plan land use and zoning designations. Thus, the Draft 2045 CAP would not cause a large increase of traffic volumes on local roadways from local increases in density beyond what already is planned and previously analyzed based on the existing General Plan land use and zoning designations. This applies to each horizon year.

Operational emissions from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County would be further reduced as electric vehicles (Measures T6, T7, and T8), renewable energy use (Measures ES2 and ES3), building electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) become more widespread. These measures prioritize electricity generation from renewable sources rather than the combustion of fossil fuels, which would support emissions reductions. Draft 2045 CAP Measures E5 and E6 would additionally reduce operational emissions from energy sources required to move water while Draft 2045 CAP Measures ES5 and E4 would reduce energy use and demand. Operations of new buildings would be required to adhere to the applicable codes, regulations, and policies including the 2022 or latest Title 24 Green Building Code.

The frequency and severity of air quality impacts related to combustion emissions (e.g., NO_x, PM₁₀ exhaust, PM_{2.5} exhaust) could decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as County-wide operational sources of air pollutants transition to increased electrification, particularly as a result of the CARB Advanced Clean Cars II rule (CARB 2023b). As the vehicle fleet turns over and vehicles are replaced with ZEV models, future-horizon-year emissions from mobile sources associated with future development under the Draft 2045 CAP would decrease.

Projects facilitated by the Draft 2045 CAP measures and actions could create significant criteria pollutant emissions if they would include a sufficiently large number of operational emissions sources or intensive operational uses or processes. For instance, Draft 2045 CAP Measure ES3 would expand local solar power generation on existing and new development throughout the

County and at County facilities and provide for utility-scale solar and associated infrastructure. Incorporation of solar infrastructure on existing or new developments in the County and at County facilities and utilities (Measure ES3) would likely require ongoing maintenance (e.g., for cleaning solar photovoltaic panels and repair or replacement from general wear and malfunctioning components). As discussed previously, operation of these future facilities facilitated by the Draft 2045 CAP measures and actions could result in fugitive dust emissions from vehicle trips on unpaved surfaces, windblown dust settling on solar panels, or other similar types of operational activities.

Applicants for future operational activities facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rule 403 or AVAQMD Rule 403, as applicable, to control dust emissions during any operational activities that generate fugitive dust, utilizing measures specified in these rules as applicable to each operational activity.

New or expanded waste processing facilities (Measures W1 and W2) could require new stationary sources of emissions for waste treatment processes and mobile sources of emissions for the transport of solid waste and other materials. However, it should be noted that the Draft 2045 CAP itself would not result in an increase in waste generation; Draft 2045 CAP Measures W1 and W2 would apply to the diversion of waste that would be generated with or without adoption of the Draft 2045 CAP. Nonetheless, because Measures W1 and W2 call for new or expanded waste processing facilities (for expanded recycling and composting activities), the Draft 2045 CAP may result in changes to VMT associated with waste-related trucks diverting waste to waste processing facilities that otherwise would be sent to landfills. The change in VMT may vary across the horizon years, depending on the timing of development and the locations of future new or expanded waste processing facilities.

County-wide waste-related truck VMT could decline because waste that otherwise would be destined for landfills would be diverted to closer facilities, such as recycling and composting centers. Alternatively, County-wide waste-related truck VMT could increase because the newly diverted waste may be transported to facilities farther away than landfills, or because more waste trucks would be needed at the same locations to pick up recyclables and compostables that otherwise would have been collected by a single refuse truck bound for a landfill. However, it is speculative to quantify the magnitude or direction of the change in waste-related truck VMT. Such a determination depends on information that cannot be known at this time, such as the specific locations of new or expanded waste processing facilities, specific truck routes and hauling volumes, and the resultant change in waste-related truck travel patterns.

Impacts of projects facilitated by the Draft 2045 CAP measures and actions would be reduced by policies implemented under General Plan. Some of these policies, listed in Section 3.4.1.3, would reduce emissions and could address impacts. Projects facilitated by the Draft 2045 CAP also would be required to conduct their own CEQA analysis. Significance determinations would be based on individual project specifics. Individual projects with emissions that exceed the thresholds normally would result in a significant impact and require mitigation. Projects facilitated by Draft 2045 CAP measures and actions could result in additional operational emission sources that are not listed above or for which specifics are not known. Thus, even with

mandatory compliance with CARB, SCAQMD, and AVAQMD rules and regulations, some future projects facilitated by the Draft 2045 CAP could result in significant impacts related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment. Therefore, operational activities associated with projects facilitated by the Draft 2045 CAP measures and actions across horizon years 2030, 2035, and 2045 could result in significant regional air quality impacts. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Health Impacts from Construction and Operational Emissions

The California Supreme Court decision in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 resulted in the need for CEQA documents to address human health impacts of regional criteria pollutant emissions that exceed air district standards. Because regional emissions may exceed the SCAQMD and AVAQMD regulatory thresholds during construction and operational activities for future projects facilitated by the Draft 2045 CAP across horizon years 2030, 2035, and 2045, there is the potential that these emissions would exceed the CAAQS and NAAQS thus resulting in a health impact. For example, breathing ground-level ozone (which is produced from emissions of NO_x and VOC) can have health impacts that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. Exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. Exposure to PM_{2.5} has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, restricted activity days, and long-term exposure to PM_{2.5} has been linked to premature death. Health impacts of criteria pollutants are further discussed in Section 3.4.1.2.

The SCAQMD, AVAQMD, CARB, and USEPA have not approved a quantitative method to reliably, meaningfully, and consistently translate the mass emission estimates for the criteria air pollutants resulting from individual future projects facilitated by the Draft 2045 CAP to specific health impacts. There are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health impacts or potential additional nonattainment days. The SCAQMD submitted an amicus brief that indicates it is not feasible to quantify project-level health impacts based on the available modeling tools (SCAQMD 2015).

Further, without knowing the exact specifications for projects that may be facilitated by the Draft 2045 CAP, there is no way to accurately calculate the potential for health impacts from the Draft 2045 CAP that may occur across horizon years 2030, 2035, and 2045. Emissions and associated health impacts could decline in future horizon years 2035 and 2045 relative to horizon year 2030 as a result of electrification and increased renewable energy. However, individual projects facilitated by the Draft 2045 CAP measures and actions would be required to provide their own environmental analyses to determine health impacts from the construction and operation. To the extent that such projects would generate emissions during construction and operations and could

exceed air district construction significance thresholds, they would contribute to the health impacts of the criteria pollutants described in Section 3.4.1.2.

The following mitigation measures would reduce construction-related and operational impacts. Mitigation measures would apply only if specific projects have potentially significant impacts after compliance with independently enforceable air quality regulations that reduce impacts.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, and 3.4-3.

Mitigation Measure 3.4-4: Enhanced Energy Conservation. If, during subsequent project-level environmental review, it is determined that operational emissions impacts are significant, the lead agency shall require the project to incorporate enhanced energy conservation measures beyond those required by federal or state law, County ordinance, and the Draft 2045 CAP measures and actions to reduce energy-related emissions. Enhanced energy conservation measures shall include one or more of the following as applicable:

- Install Energy Star rated heating, cooling, lighting, and appliances.
- Use of heating, ventilation, and air conditioning equipment with a Seasonal Energy Efficiency Ratio of 12 or higher.
- Installation of water heaters with an energy factor of 0.92 or higher.
- Install solar water heaters or tankless water heaters.
- Use passive solar cooling/heating.
- Reduce building natural gas infrastructure, use renewable natural gas in place of fossil fuel-derived natural gas, or eliminate building natural gas infrastructure and fully electrify buildings.

Mitigation Measure 3.4-5: Low-VOC/Green Cleaning Product Educational Program. If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project applicant or developer to provide tenants and residents with information about low-VOC/green cleaning products and paints, including materials educating how to identify low-VOC cleaners and products.

Significance after Mitigation: Future projects in the unincorporated areas of the County facilitated by Draft 2045 CAP measures and actions would result in a significant and unavoidable impact related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment during construction and operations due to the potential for individual future projects implementing Draft 2045 CAP measures and actions to exceed the significance thresholds. Implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, and 3.4-4 would help to reduce the severity of the impacts. However, even with implementation of the measures, impacts may not be reduced to below the thresholds (and impacts would remain significant and unavoidable) because no feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level and because feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available. Because the exact

specifications for projects that may be facilitated by the Draft 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045. The magnitude of long-term impacts may increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Criterion c) Whether the Project would expose sensitive receptors to substantial pollutant concentrations.

Impact 3.4-3a: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and TAC emissions. (*Significant and Unavoidable*)

Future projects facilitated by the Draft 2045 CAP measures and actions could expose sensitive receptors to pollutant concentrations from localized emissions near future project sites. In addition to these localized impacts, vehicle travel associated with projects facilitated by the Draft 2045 CAP could result in exposure of sensitive receptors to CO emissions from intersection congestion. Based on the nature and extent of new projects, nearby sensitive receptors could be exposed to levels of toxic air contaminants that could result in a potential increase in cancer, acute, and/or chronic risk.

Based on the thresholds in the SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008), the Draft 2045 CAP would cause a significant impact if maximum daily localized emissions of NO_x, CO, PM₁₀, and PM_{2.5} during construction or operation were greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations at air quality-sensitive receptors greater than the most stringent ambient air quality standards for NO₂ and/or CO. **Table 3.4-7** provides SCAQMD ambient concentration-based significance thresholds for emissions that may expose sensitive receptors to substantial pollutant concentrations. SCAQMD screening mass emissions levels that could cause an exceedance of the ambient concentration thresholds vary depending on the location (e.g., source-receptor area) of a project site, the size of a project site, and the distance from a project site to an air quality-sensitive receptor and are provided in Appendix C of the SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008).

The Project would result in a significant impact for CO hotspots if the concentrations of CO at a roadway intersection within 0.25 mile of an air quality-sensitive receptor would exceed the CO 1-hour and/or 8-hour concentration limits in Table 3.4-7. Based on the thresholds in the SCAQMD CEQA Air Quality Handbook, and the AVAQMD CEQA and Federal Conformity Guidelines, the Project would cause a significant impact by exposing air quality-sensitive receptors to toxic air contaminants if it would emit toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic Hazard Index of 1.0.

**TABLE 3.4-7
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY SIGNIFICANCE THRESHOLDS**

| Ambient Air Quality Standards for Criteria Pollutants ^a | |
|---|---|
| NO₂ 1-hour average annual arithmetic mean | SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal) |
| PM₁₀ 24-hour average annual average | 10.4 µg/m ³ (construction) ^b and 2.5 µg/m ³ (operation) 1.0 µg/m ³ |
| PM_{2.5} 24-hour average | 10.4 µg/m ³ (construction) ^b and 2.5 µg/m ³ (operation) |
| CO 1-hour average 8-hour average | SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal) |

NOTES:

µg/m³ = micrograms per cubic meter; CO = carbon monoxide; NO₂ = nitrogen dioxide; PM_{2.5} = inhalable particles with diameters that are generally 2.5 micrometers and smaller; PM₁₀ = inhalable particles with diameters that are generally 10 micrometers and smaller; ppm = parts per million; SCAQMD = South Coast Air Quality Management District

^a Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated

^b Ambient air quality threshold based on SCAQMD Rule 403.

SOURCE: SCAQMD 2019.

Construction Emissions

Construction of future individual projects in the unincorporated areas of the County that would be facilitated by Draft 2045 CAP measures and actions could create localized air quality impacts for horizon years 2030, 2035, and 2045 from the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and haul trips traveling to and from project sites in the SCAB and the MDAB. In addition, fugitive dust emissions would result from construction activities, including from utility-scale solar projects in the Antelope Valley. During the finishing phase, the application of architectural coatings (e.g., paints) and other building materials would release VOCs. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The SCAQMD suggests that a Localized Significance Threshold analysis be conducted on a project-level using on-site mass emission look-up screening tables or project-specific air dispersion modeling (SCAQMD 2008).

Concentrations of TACs are used as indicators of ambient air quality conditions. Sensitive receptors may be located within close proximity to future projects facilitated by the Draft 2045 CAP. The SCAQMD and AVAQMD recommend that construction health risk assessments be conducted for substantial sources of DPM emissions (e.g., projects with substantial diesel-powered construction activities, such as earth-moving or excavation) in proximity to sensitive receptors and has provided guidance for analyzing mobile-source diesel emissions. Localized DPM emissions strongly correlate with localized PM_{2.5} emissions. However, localized analysis does not directly measure health risk impacts. Therefore, future projects facilitated by the Draft

2045 CAP may require project-specific dispersion modeling to evaluate potential health risk impacts associated with construction.

No specific projects are included in the Draft 2045 CAP. No information currently is available regarding specific projects that could be facilitated by the Draft 2045 CAP. Other details necessary to provide a meaningful estimate of emissions also is lacking, such as specific sites, buildings and facilities to be constructed or modified, construction schedules, and quantities of earthmoving. Because this information is unknown, localized emissions modeling is not feasible and would be speculative for each of the horizon years 2030, 2035, and 2045.

The frequency and severity of air quality impacts could decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as the County-wide inventory of construction vehicles and equipment turns over and a greater percentage of the inventory meets more stringent emissions standards. In addition, future standards that may be adopted by CARB (i.e., Tier 5 rulemaking) could further reduce NO_x, PM₁₀, and PM_{2.5} from off-road compression ignition engines (i.e., heavy-duty diesel equipment) compared to what is allowed by the current most stringent Tier 4 final emission standards.

Each future project facilitated by the Draft 2045 CAP measures and actions would be required to conduct its own CEQA analysis. Significance determinations would be based on the individual project's specifics. Through each project's individual environmental review process, localized emissions may be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered to have significant impacts and require mitigation. New facilities may be facilitated by Draft 2045 CAP measures and actions, such as new renewable energy facilities including County facilities and utility-scale solar and associated infrastructure (Measure ES3), new or expanded recycled water facilities (Measure E5), new electric vehicle charging station infrastructure (Measure T6), and new or expanded waste processing facilities (Measures W1 and W2), which may occur as large construction projects; a significant air quality impact could result from the construction of such future facilities even with implementation of these Draft 2045 CAP measures. In addition, because future projects facilitated by the Draft 2045 CAP could occur close to existing sensitive receptors, construction of measures facilitated by the Draft 2045 CAP could expose sensitive receptors to substantial pollutant concentrations. Construction equipment exhaust combined with fugitive particulate matter emissions could expose sensitive receptors to substantial concentrations of criteria air pollutant emissions, DPM or TACs, resulting in a significant impact for horizon years 2030, 2035, and 2045. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Operational Emissions

Future projects may be facilitated by the Draft 2045 CAP, such as new renewable energy facilities (Measure ES3), new or expanded recycled water facilities (Measure E5), and new or expanded waste processing facilities (Measures W1 and W2). Operation of these future facilities could result in fugitive dust emissions from maintenance activities occurring on unpaved surfaces, maintenance or employee vehicles or trucks traveling on unpaved surfaces, windblown

dust settled on solar panels, or other similar types of operational activities. The SCAQMD recommends the evaluation of localized air quality impacts on sensitive receptors in the immediate vicinity of a project. However, the impacts are based on specific equipment and operations. Because the exact nature, location, timing, and operation of the future projects facilitated by the Draft 2045 CAP measures and actions are unknown, quantification of localized operational impacts and health risks would not be feasible and would be speculative across horizon years 2030, 2035, and 2045.

Land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from SCAQMD include industrial land uses. Future projects facilitated by the Draft 2045 CAP measures and actions may include the use of heavy-duty equipment; however, implementation of the Draft 2045 CAP measures and actions would substantially reduce vehicle gasoline and diesel usage (see, e.g., Measures T6 and T8). Operational emissions from projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated areas of the County would be further reduced as renewable energy use (Measures ES2 and ES3), building electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) are implemented. Operations of new buildings would be required to adhere to the applicable codes, regulations, and policies including the 2022 or future versions of the Title 24 Green Building Code applicable at the time of building permit applications for future projects facilitated by the Draft 2045 CAP. The operation of some projects facilitated by Draft 2045 CAP 2045 measures and actions may occur within proximity to sensitive receptors. However, implementation of the Draft 2045 CAP would substantially reduce fossil fuel use and associated emissions, with greater reduction in fossil fuel use across horizon years 2030, 2035, and 2045 as a result of electrification and renewable energy, as discussed previously. Thus, the Draft 2045 CAP, along with regulatory compliance (e.g., SCAQMD Rule 403 or AVAQMD Rule 403 to control fugitive dust), would reduce the potential for localized emissions to expose sensitive receptors to substantial pollutant concentrations.

It is likely that the frequency and severity of air quality impacts would decline in future horizon years 2035 and 2045 relative to horizon year 2030, as County-wide vehicles observe increased electrification pursuant to the CARB Advanced Clean Cars II rule. This rule states that by 2035, 100 percent of new passenger vehicles, light-duty trucks, and SUVs sold in California must be ZEVs. As the vehicle fleet turns over and vehicles are replaced with ZEV models, future-horizon-year emissions from mobile sources associated with future development under the Draft 2045 CAP would decrease.

Further, as utility providers increase the percentage of renewably sourced electricity pursuant to the mandated RPS targets, energy emissions associated with future development under the Draft 2045 CAP would decrease. This would result in further cumulative emissions reductions for the electric vehicle fleet.

Impacts of projects facilitated by the Draft 2045 CAP measures and actions would be required to implement applicable policies under the General Plan. Some of these policies, listed in Section 3.4.1.3, would reduce emissions and could address impacts. Further, it is expected that implementation of Draft 2045 CAP measures and actions would achieve emission reductions

based on reducing fossil fuel use throughout the unincorporated areas of the County, with greater reduction in fossil fuel use across horizon years 2030, 2035, and 2045. Nonetheless, the potential remains for future projects facilitated by Draft 2045 CAP measures and actions to expose sensitive receptors to substantial criteria pollutant concentrations. Projects facilitated by Draft 2045 CAP measures and actions could create significant localized emissions for those that would include a sufficiently large number of operational emissions sources or intensive operational uses or processes. For instance, incorporation of solar infrastructure on existing or new developments in the County and at County facilities and utilities (Measure ES3) would likely require ongoing maintenance (e.g., for cleaning solar photovoltaic panels and repair or replacement from general wear and malfunctioning components).

New or expanded waste processing facilities (Measures W1 and W2) could require new stationary sources of emissions for waste treatment processes and mobile sources of emissions for the transport of solid waste and other materials. However, it should be noted that the Draft 2045 CAP itself would not result in an increase in waste generation; Draft 2045 CAP Measures W1 and W2 would apply to the diversion of waste that would be generated with or without adoption of the Draft 2045 CAP. Nonetheless, because Draft 2045 CAP Measures W1 and W2 call for new or expanded waste processing facilities (for expanded recycling and composting activities), the Draft 2045 CAP may result in changes to VMT associated with waste-related trucks diverting waste to waste processing facilities that otherwise would be sent to landfills. The change in VMT may vary across the horizon years, depending on the development timing and locations of future new or expanded waste processing facilities.

County-wide waste-related truck VMT could decline because waste that otherwise would be destined for landfills would be diverted to closer facilities, such as recycling and composting centers. Alternatively, County-wide waste-related truck VMT could increase because newly diverted waste may be transported to facilities farther away than landfills, or because more waste trucks would be needed at the same locations to pick up recyclables and compostables that would otherwise have been collected by a single refuse truck bound for a landfill. However, it is speculative to quantify the magnitude or direction of the change in waste-related truck VMT. Such a determination depends on information that cannot be known at this time, such as the specific locations of new or expanded waste processing facilities, specific truck routes and hauling volumes, and the resultant change in waste-related truck travel patterns for future horizon years 2030, 2035, and 2045.

Therefore, operational activities associated with projects facilitated by the Draft 2045 CAP measures and actions could result in significant localized air quality impacts. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Carbon Monoxide Hotspots

The potential for projects facilitated by the Draft 2045 CAP measures and actions to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by SCAQMD in support of their

AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the Project would not cause or contribute considerably to the formation of CO hotspots, and that CO concentrations at project intersections would remain well below the ambient air quality standards.

CO levels in the unincorporated areas of the County are below the NAAQS and CAAQS as the County portion of the SCAB and MDAB are designated as attainment. Maximum CO levels in recent three years are 1.2 to 4.5 ppm (1-hour average) and 0.8 to 4.7 ppm (8-hour average). CO levels decreased dramatically in California with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the SCAB since 2003 and both the SCAB and MDAB are designated as CO attainment areas for both the CAAQS and NAAQS (SCAQMD 2017). Thus, it is not expected that CO levels at roadway intersections would rise to the level of an exceedance of these standards across horizon years 2030, 2035, and 2045.

Furthermore, CO emissions from vehicles have substantially reduced compared to 2003-era vehicles based on improved vehicle emissions standards and are presumed not to exceed the applicable thresholds. Thus, this comparison demonstrates that the Project would not contribute considerably to the formation of CO hotspots and no further CO analysis is required for each of horizon years 2030, 2035, and 2045. The Project would result in a less-than-significant impact with respect to CO hotspots for each horizon year. Although the magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, the impact would remain less than significant for all horizon years.

Toxic Air Contaminants

Construction and operation of projects facilitated by the Draft 2045 CAP could result in TAC emissions, e.g., DPM emissions, particularly from on- and off-road vehicles during construction activities. Exposure to TACs can produce lifetime cancer risk or short-term chronic or acute non-cancer risk. Construction activities from future projects facilitated by the Draft 2045 CAP could generate TAC emissions from heavy-duty construction equipment and trucks. New facilities may be facilitated by Draft 2045 CAP measures and actions, such as new renewable energy facilities (Measure ES3), new or expanded recycled water facilities (Measure E5), new electric vehicle charging station infrastructure (Measure T6), and new or expanded waste processing facilities (Measures W1 and W2), which may occur as large construction projects. However, implementation of the Draft 2045 the CAP would substantially reduce fossil fuel use and associated TAC emissions from operational activities as a result of renewable energy use (Measures ES2 and ES3), building electrification (Measures E1 and E2), and other decarbonization actions (Measure E3) are implemented, with greater reduction in fossil fuel use across horizon years 2030, 2035, and 2045. This would be reduced further in future horizon years 2035 and 2045 relative to horizon year 2030 as County-wide vehicles observe increased electrification pursuant to the CARB Advanced Clean Cars II rule, which states that by 2035, 100 percent of new passenger vehicles, light-duty trucks, and SUVs sold in California must be ZEVs.

Because the exact nature, location, timing, and operation of projects facilitated by Draft 2045 CAP measures and actions are unknown, and because health risk impacts from TACs are cumulative over the life of the nearby receptors, quantification of potential health risks would be speculative for each horizon year. However, because construction and operation of these future projects may occur close to sensitive receptors, there is the potential for health risk level to exceed air district thresholds of significance, which could cause the adverse health impacts discussed in Section 3.4.1.2. Therefore, projects facilitated by the Draft 2045 CAP measures and actions could expose sensitive receptors to substantial TAC concentrations for horizon years 2030, 2035, and 2045. This would be a significant impact. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. The impacts of projects facilitated by the Draft 2045 CAP measures and actions would be analyzed on a project-specific basis and, if it is determined that such a project would exceed air district thresholds of significance, mitigation measures would be implemented to avoid or reduce the impact if feasible.

Mitigation Measures 3.4-1 and 3.4-2 would reduce this impact. Mitigation measures would apply only if specific projects have potentially significant impacts after compliance with independently enforceable air quality regulations that reduce impacts.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, and 3.4-5.

Mitigation Measure 3.4-6: Stationary Sources. Applicants for new or modified stationary sources facilitated by the Draft 2045 CAP measures and actions that: (1) have the potential to generate 40 or more diesel trucks per day and (2) are located within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the County Department of Regional Planning prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the applicable air quality management district. If the HRA shows that the incremental cancer risk exceeds ten in one million ($10E-06$), particulate matter concentrations would exceed $2.5 \mu\text{g}/\text{m}^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project.

Mitigation Measure 3.4-7: Health Risk Assessment. Applicants shall submit a health risk assessment (HRA) to the County prior to future discretionary project approval for sensitive land uses facilitated by the Draft 2045 CAP measures and actions within the following distances as measured from the property line of the project to the property line

of the source/edge of the nearest travel lane, from these facilities or similar types of facilities that produce TAC emissions:

- Industrial facilities within 1,000 feet
- Distribution centers (40 or more trucks per day) within 1,000 feet
- Major transportation projects (50,000 or more vehicles per day) within 1,000 feet
- Gasoline dispensing facilities within 300 feet

Applicants proposing projects facilitated by the Draft 2045 CAP measures and actions which produce TAC emissions may be required to submit an HRA based on local rules and regulations, and/or at the discretion of the lead agency.

The HRA shall be prepared in accordance with policies and procedures of the applicable Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:

- Air intakes located away from high-volume roadways and/or truck loading zones, unless it can be demonstrated to the County Department of Regional Planning that there are operational limitations.
- Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters.

Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the County and shall be verified by the County Department of Regional Planning.

Significance after Mitigation: The Draft 2045 CAP would result in a significant and unavoidable impact related to exposure of sensitive receptors to substantial pollutant concentrations. The implementation of the identified mitigation measures would help to reduce the severity of the impacts related to localized emissions and TAC emissions. However, impacts from construction- and operational-related localized emissions and TAC emissions may not be reduced to below the thresholds and, under such conditions, impacts would remain significant and unavoidable. No feasible mitigation measures are available that would reduce impacts related to construction-related localized emissions and TAC emissions to below SCAQMD's or AVAQMD's thresholds on a programmatic level and feasible mitigation may not be available for individual projects facilitated by Draft 2045 CAP measures and actions. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available. Because the exact specifications for projects that may be facilitated by the Draft 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures

and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Impact 3.4-3b: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not expose sensitive receptors to substantial pollutant concentrations relating to Valley Fever. (*Less than Significant with Mitigation*)

Valley Fever is an infective disease in certain areas of California caused by the fungus *Coccidioides immitis*. Infection occurs via inhalation of *Coccidioides immitis* spores that have become airborne from the upturn of dry, dusty soil by wind, construction, farming, or other activities. Several factors indicate a project's potential to expose sensitive receptors to Valley Fever: disturbance of the top soil of undeveloped land, dust storms, strong winds, earthquakes, archaeological digs, agricultural activities, and construction activities. *Coccidioides immitis* spores are often found in the soil around rodent burrows, Indian ruins, and burial grounds. The ecological factors that appear to be most conducive to the survival and replication of the fungal spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

Construction and operational activities for projects facilitated by Draft 2045 CAP measures and actions for each horizon year 2030, 2035, and 2045 could result in exposure of sensitive receptors to Valley Fever in the arid, desert portions of the unincorporated areas, including but not limited to development of solar farms or other renewable energy facilities. In particular, projects facilitated by the Draft 2045 CAP measures and actions that require construction activities that disturb topsoil, especially of undeveloped land, have the potential to cause *Coccidioides immitis* spores in soil to become airborne. Similarly, operations of projects facilitated by the Draft 2045 CAP, such as solar farm developments and other industrial projects located in areas where *Coccidioides immitis* spores exist, may have activities that also disturb topsoil to release spores into the air. Compliance with rules and other measures that reduce emissions of fugitive dust, such as SCAQMD Rule 403 and AVAQMD Rule 403, would reduce the potential for *Coccidioides immitis* spores in soil to become airborne. Construction workers, operational workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Thus, projects facilitated by the Draft 2045 CAP measures and actions have the potential to expose persons to the spores that cause Valley Fever from fugitive dust generated during construction and operational activities, which would be a significant impact.

Compliance with independently enforceable obligations, principally including SCAQMD and AVAQMD fugitive dust control rules (e.g., Rule 403), and applicable California Division of Occupational Safety and Health (Cal/OSHA) requirements for protection of construction workers (Cal/OSHA 2022), would reduce Valley Fever impacts; however, impacts would still be significant, particularly for construction contractors and other individuals who may visit active construction sites. Compliance with independently enforceable obligations would require the control and mitigation of all sources of construction-related and operational fugitive dust, and thereby potential sources of airborne *Coccidioides immitis* spores, to at or below applicable regulatory limits (i.e., SCAQMD Rule 403 or AVAQMD Rule 403). Because Valley Fever is typically a local issue, the local agencies with air quality and mitigation oversight for projects facilitated by the Draft 2045 CAP would have compliance enforcement responsibility.

The fugitive dust control requirements included in Mitigation Measures 3.4-1 and 3.4-2 for construction and operational activities would assist in reducing potential exposure to *Coccidioides immitis* spores. Additionally, the Los Angeles County Department of Public Health has developed guidelines for mitigating the potential for exposure to the spores that cause Valley Fever (Los Angeles County Department of Public Health 2019). In accordance with the Los Angeles County Department of Public Health’s guidelines, implementation of Mitigation Measure 3.4-8 would be required in areas potentially exposed to Valley Fever for future projects facilitated by the Draft 2045 CAP, to further reduce potential exposure to *Coccidioides immitis* spores and minimize impacts. Because compliance with air district fugitive dust control rules and the Valley Fever mitigation measures below would be required for future development pursuant to the Draft 2045 CAP, impacts would be similar for horizon years 2030, 2035, and 2045.

Mitigation Measure: Implement Mitigation Measures 3.4-1 and 3.4-2.

Mitigation Measure 3.4-8: Valley Fever. During heavy grading where the top 12–18 inches of soil would be disturbed, and in locations with potential Valley Fever fungal spores, applicants for projects facilitated by the Draft 2045 CAP measures shall require construction contractors to comply with the following measures as feasible to reduce potential Valley Fever impacts:

- Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations.
- Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems.
- Require crews to work upwind from excavation sites where possible.
- Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- During rough grading and construction, ensure that the access way into the project site from adjoining paved roadways is paved or treated with environmentally safe dust control agents.

Significance after Mitigation: The Draft 2045 CAP would result in a significant impact related to exposure of sensitive receptors to substantial pollutant concentrations related to Valley Fever. Implementation of Mitigation Measures 3.4-1 and 3.4-2 would control and reduce fugitive dust emissions and reduce potential off-site exposures. Mitigation Measure 3.4-8 would reduce potential exposures to construction workers located on-site and off-site, reducing this impact to a less-than-significant level. Because the exact specifications for projects that may be facilitated by the Draft 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045. Although the magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP’s increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, the impact would remain less than significant for all horizon years.

Criterion d) Whether the Project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impact 3.4-4: The Draft 2045 CAP measures and actions would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less-than-Significant Impact*)

Other emissions, such as those leading to odors, typically are associated with industrial developments involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. Odors also are associated with such uses as sewage treatment facilities and landfills. Pollutant emissions, such as odorous emissions, could be facilitated by projects implementing Draft 2045 CAP measures and actions; however, as discussed below, such odors would not cause a significant impact by adversely affecting a substantial number of people. This applies to projects facilitated by the Draft 2045 CAP measures and actions for each horizon year 2030, 2035, and 2045.

Common sources of odors from development within a community may include the use of VOC-containing architectural coatings and solvents, composting and organic waste management, municipal solid waste collection areas, and transfer stations and material recovery facility operations. The AVAQMD and SCAQMD have adopted rules for controlling nuisance emissions, such as those leading to odors, from community sources.

AVAQMD Rule 402 and SCAQMD Rule 402 both prohibit emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. The AVAQMD and SCAQMD both regulate the VOC content of architectural coatings and solvents via several adopted rules including Rules 442, 1107, 1113, and 1171, as numbered by both air districts. The SCAQMD, which has jurisdiction over an area with a substantially greater population density than the AVAQMD, has adopted additional source-specific rules that assist in controlling odors including Rule 410 for controlling odors from transfer stations and material recovery facilities and Rule 1138 for controlling emissions from restaurant cooking operations. While the AVAQMD has no rules identical to SCAQMD Rule 410 and Rule 1138, potential odorous emissions still would be subject to the overall nuisance requirements in Rule 402. For composting and related operations, SCAQMD Rules 1133, 1133.2, and 1133.3 and AVAQMD Rule 1133 requires the reduction of potentially odorous emissions of VOCs and ammonia from composting and related operations.

Future projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with all applicable regulatory requirements for controlling emissions such as those leading to odors. Furthermore, the Draft 2045 CAP would support development already allowed under the General Plan land use assumptions with the 2021–2029 Housing Element and no changes to land use designations are proposed. Thus, the Draft 2045 CAP would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that affect a substantial number of people. Impacts from adoption of the Draft 2045 CAP would be less than significant for horizon years 2030, 2035, and 2045. Although the magnitude of long-term impacts would increase over time to the extent that more

projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, the impact would remain less than significant for all horizon years.

Mitigation: None required.

3.4.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts to air quality, the geographic area of consideration includes the SCAB and MDAB. Cumulative impacts could result at various locations within this area from initiation of any emissions-causing activity in furtherance of a project facilitated by Draft 2045 CAP measures and actions until such projects are decommissioned and the sites restored.

The SCAQMD recommends using two methodologies to assess the cumulative impact of air quality emissions: (1) a project's consistency with the current AQMP be used to determine its potential cumulative impacts, or (2) that project-specific air quality impacts be used to determine the project's potential cumulative impacts to regional air quality (SCAQMD 2003).¹¹ The AVAQMD's approach to assessing cumulative impacts is similar to that performed for direct and indirect impacts as they relate to similar project types.

Criterion a)

Impact 3.4-5: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable contribution to a significant cumulative impact due to a conflict with or obstruction of implementation of the applicable air quality plan. (*Significant and Unavoidable Cumulative Impact*)

For purposes of the cumulative air quality analysis with respect to conflicts with or obstruction of implementation of the applicable air quality plan, the Draft 2045 CAP cumulative air quality impacts are determined to be significant based on its potential to: (i) result in an increase in the frequency or severity of existing air quality violations; (ii) cause or contribute to new air quality violations; or (iii) delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (Criterion No. 1). Construction of future projects facilitated by Draft 2045 CAP measures and actions could increase the frequency or severity of an existing violation or cause or contribute to new violations and impacts would be significant. The frequency and severity of air quality impacts could decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as the County-wide inventory of construction vehicles and equipment turns over and a greater percentage of the inventory meets more stringent emissions standards, such as the CARB Truck and Bus regulation (13 CCR Section 2025) and the CARB emissions standards for off-road diesel construction equipment (13

¹¹ SCAQMD, Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, Appendix D, 1993, page D-3 ("As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR... Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.").

CCR Section 2449). These changes would reduce the potential for impacts related to NO_x, PM₁₀, and PM_{2.5} exhaust emissions.

The operation of future projects facilitated by the Draft 2045 CAP that would implement the Draft 2045 CAP measures and actions would not conflict with the applicable SCAQMD and AVAQMD air quality plan land use and transportation strategies that are intended to reduce VMT, reduce the frequency or severity of existing air quality violations or new violations, and achieve the timely attainment of air quality standards specified in the applicable air quality plan. However, projects facilitated by the Draft 2045 CAP measures and actions could create significant emissions of criteria pollutants if they would include a sufficiently large number of operational emissions sources or intensive operational uses or processes. As a result, the Project could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the AQMP. However, the frequency and severity of air quality impacts would likely decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline would occur as County-wide vehicles observe increased electrification pursuant to the CARB Advanced Clean Cars II rule. This rule states that by 2035, 100 percent of new passenger vehicles, light-duty trucks, and SUVs sold in California must be ZEVs. As the vehicle fleet turns over and vehicles are replaced with ZEV models, future-horizon-year emissions from mobile sources associated with future development under the Draft 2045 CAP would decrease.

Further, as utility providers increase the percentage of renewably sourced electricity pursuant to the mandated RPS targets (refer to Section 3.9, *Greenhouse Gas Emissions*, of this Revised Draft PEIR for additional information), energy emissions associated with future development under the Draft 2045 CAP would decrease. This would also result in further cumulative emissions reductions for the electric vehicle fleet.

As discussed previously, operation of future facilities facilitated by the Project may be located in areas prone to high wind and/or in areas with exposed surfaces, like solar farms, and could result in fugitive dust emissions from vehicle travel on unpaved surfaces or other similar types of operational activities. Applicants for future projects facilitated by the Draft 2045 CAP would be required to comply with SCAQMD Rule 403 or AVAQMD Rule 403 to control dust emissions during any operational activities that generate fugitive dust, utilizing measures specified in these rules as applicable to each operational activity.

As such, the Draft 2045 CAP, in combination with the incremental impacts of past, present and reasonably foreseeable projects, would result in a significant cumulative impact related to a conflict or obstruction of implementation of applicable air quality plans for construction emissions, but a less-than-significant cumulative impact related to a conflict or obstruction of implementation of applicable air quality plans for operational emissions. The Project's contribution to this impact would be cumulatively considerable, and therefore significant. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, and 3.4-3.

Significance after Mitigation: Future projects in the unincorporated County that would implement Draft 2045 CAP measures and actions would result in a significant and unavoidable cumulative impact related to Criterion No. 1 for construction regarding whether the Project would conflict with or obstruct the implementation of the applicable air quality plan. Implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-3 would reduce the severity of construction emissions. However, even with the implementation of the measures, these cumulative impacts are not accurately quantifiable at this time and may not be reduced to below the thresholds. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level, and feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP measures and actions for horizon years 2030, 2035, and 2045. Impacts would be cumulatively considerable, and significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.4-6: The Draft 2045 CAP would make a cumulatively considerable contribution to a significant cumulative impact to air quality associated with criteria pollutants. (Significant and Unavoidable Cumulative Impact)

The SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality because projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

The AVAQMD's approach to assessing cumulative impacts is similar to that performed for direct and indirect impacts as they relate to similar project types. The Los Angeles County portion of the MDAB is currently in nonattainment for ozone.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or California nonattainment pollutant. Because the Los Angeles County portion of the SCAB is currently in nonattainment for ozone, NO₂, PM₁₀, and PM_{2.5}, and the Los Angeles County portion of the MDAB is currently in nonattainment for ozone, cumulative projects during each of the future horizon years 2030, 2035, and 2045 could exceed an air quality standard or contribute to an existing or projected air quality exceedance.

With respect to construction-related emissions from even with mandatory compliance with CARB, SCAQMD, and AVAQMD rules regulations, some future projects associated with implementation of Draft 2045 CAP measures and actions could be large enough in scale and/or intensity such that many pieces of heavy-duty construction equipment and/or heavy-duty trucks may be required and that construction period emissions could exceed the significance thresholds. Therefore, construction activities associated with future projects facilitated by Draft 2045 CAP

measures and actions could result in cumulatively considerable contributions to cumulatively significant air quality impacts.

Similarly, with respect to operational-related emissions from future projects associated with implementation of Draft 2045 CAP measures and actions, even with mandatory compliance with CARB, SCAQMD, and AVAQMD rules and regulations, some future projects facilitated by the Draft 2045 CAP could result in significant impacts related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment. Therefore, operational activities associated with projects facilitated by the Draft 2045 CAP measures and actions could result in cumulatively considerable contributions to cumulatively significant air quality impacts for each horizon year.

Based on the above analysis, the Draft 2045 CAP's air quality impacts in both air basins would be cumulatively considerable for each horizon year, and therefore significant. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, and 3.4-5.

Significance after Mitigation: Future projects in the unincorporated areas of the County facilitated by Draft 2045 CAP measures and actions would result in a significant and unavoidable impact related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment during construction and operations due to the potential for individual future projects implementing Draft 2045 CAP measures and actions to exceed the significance thresholds. Implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, and 3.4-5 would help to reduce the severity of the impacts. However, even with implementation of the measures, impacts may not be reduced to below the thresholds (and impacts would remain significant and unavoidable) because no feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level and because feasible mitigation may not be available for individual projects facilitated by the Draft 2045 CAP for horizon years 2030, 2035, and 2045. Impacts would be significant and unavoidable. The magnitude of long-term impacts may increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. No additional feasible mitigation measures are available.

Criterion c)

Impact 3.4-7: The Project, as a result of projects facilitated by the Draft 2045 CAP, could contribute to a significant cumulative impact to air quality associated with localized air pollutant and TAC emissions. (*Significant and Unavoidable Cumulative Impact for localized air pollutant and TAC emissions; Less-than-Significant Cumulative Impact for Valley Fever*)

As discussed above, the SCAQMD guidance on an acceptable approach to addressing the cumulative impacts issue for air quality states that cumulative health risk impacts uses "the same

significance thresholds... for project specific and cumulative impacts” (SCAQMD 2003).¹² The SCAQMD has not adopted a separate quantitative threshold applicable to cumulative localized air pollutant emissions or health risk assessments. Similarly, the AVAQMD has not adopted a separate quantitative threshold applicable to cumulative localized air pollutant emissions or health risk assessments. Thus, cumulative impacts are based on the thresholds used for project-specific impacts.

As discussed above, construction and operation of projects facilitated by the Draft 2045 CAP measures and actions could result in localized emissions and TAC emissions, e.g., DPM emissions, particularly from on- and off-road vehicles during construction activities. New facilities may be facilitated by Draft 2045 CAP measures and actions, such as new renewable energy facilities (Measure ES3), new or expanded recycled water facilities (Measure E5), new electric vehicle charging station infrastructure (Measure T6), and new or expanded waste processing facilities (Measures W1 and W2), which may occur as large construction projects.

It is possible that the frequency and severity of air quality impacts associated with construction would decline in future horizon years 2035 and 2045 relative to horizon year 2030. Such a decline could occur as the County-wide inventory of construction vehicles and equipment turns over and a greater percentage of the inventory meets more stringent emissions standards, such as the CARB Truck and Bus regulation (13 CCR Section 2025) and the CARB emissions standards for off-road diesel construction equipment (13 CCR Section 2449).

Implementation of the Draft 2045 CAP would substantially reduce fossil fuel use and regional emissions from operational activities as a result of building electrification (Measures E1 and E2) and other decarbonization actions (Measure E3) are implemented. Such emissions reductions would occur as a result of promoting development of electricity generation from renewal sources, thereby reducing emissions from energy supplied by fossil fuel combustion, with greater reduction in fossil fuel use across horizon years 2030, 2035, and 2045. As discussed previously, the frequency and severity of air quality impacts would likely decline in future horizon years as County-wide vehicles observe increased electrification pursuant to the CARB Advanced Clean Cars II rule. As the vehicle fleet turns over and vehicles are replaced with ZEV models, future-horizon-year emissions from mobile sources associated with future development under the Draft 2045 CAP would decrease. Additionally, energy emissions associated with future development under the Draft 2045 CAP would decrease as utility providers increase the percentage of renewably sourced electricity pursuant to the mandated RPS targets, resulting in further cumulative emissions reductions for the electric vehicle fleet.

However, the potential remains for future projects facilitated by Draft 2045 CAP measures and actions to expose sensitive receptors to substantial pollutant concentrations. Projects facilitated by

¹² SCAQMD, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, Appendix D. The White Paper states that the “only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The Project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0.” However, this is in reference to the HI from the total combined (i.e., cumulative) sources at a stationary source facility and is not directly applicable to the 2021 Project. The 2021 Project uses an HI of 1.0, which is a lower threshold.

the Draft 2045 CAP measures and actions could create significant localized emissions for those that would include a sufficiently large number of construction or operational emissions sources or intensive construction or operational uses or processes. For instance, incorporation of solar infrastructure on existing or new developments in the County and at County facilities and utilities (Measure ES3) would likely require on-going maintenance (e.g., for cleaning solar photovoltaic panels and repair or replacement from general wear and malfunctioning components). These activities could result in fugitive dust emissions from mobile sources on paved and unpaved roads or from windblown dust previously settled on solar panels.

As discussed previously, new or expanded waste processing facilities (Measures W1 and W2) could require new stationary and mobile sources of emissions for the transport of solid waste and other materials (noting that the Draft 2045 CAP itself would not result in an increase in waste generation). Because Draft 2045 CAP Measures W1 and W2 call for new or expanded waste processing facilities, the Draft 2045 CAP may result in changes to VMT associated with waste-related trucks diverting waste to waste processing facilities that otherwise would be sent to landfills. Changes in VMT may vary across the horizon years, depending on the timing of development and the locations of future new or expanded waste processing facilities. County-wide waste-related truck VMT may increase or decline depending on the future projects facilitated by the Draft 2045 CAP measures and actions; however, it is speculative to quantify the magnitude and direction of the change in waste-related truck VMT.

Therefore, construction and operational activities associated with projects facilitated by the Draft 2045 CAP measures and actions could result in significant localized air quality and TAC emission impacts.

Because the exact nature, location, timing, and operation of these future projects are unknown, and because health risk impacts from TACs are cumulative over the life of the nearby receptors, quantification of potential localized emissions and health risks would be speculative. However, multiple future projects (projects facilitated by the Draft 2045 CAP together with other cumulative projects) could result in localized and TAC emissions within a localized area that could expose receptors located near the multiple future projects to TAC emissions that could result in health risk impacts. While such potential health risks cannot be quantified at this time, mitigation measures may not be able to reduce impacts below SCAQMD's or AVAQMD's significance thresholds. Therefore, cumulative localized and health risk impacts from criteria air pollutant and TAC emissions would be significant, and the Project's contribution to this impact would be cumulatively considerable and therefore significant. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

Construction and operational activities for projects facilitated by Draft 2045 CAP measures and actions for each horizon year 2030, 2035, and 2045 could result in exposure of sensitive receptors to Valley Fever in the arid, desert portions of the unincorporated areas, including but not limited to development of solar farms or other renewable energy facilities. However, all projects (projects facilitated by the Draft 2045 CAP as well as other cumulative projects) would be required to

comply with rules and other measures that reduce emissions of fugitive dust, such as SCAQMD Rule 403 and AVAQMD Rule 403, which would reduce the potential for *Coccidioides immitis* spores in soil to become airborne. Similarly, operations of projects facilitated by the Draft 2045 CAP, such as solar farm developments and other industrial projects located in areas where *Coccidioides immitis* spores exist, may have activities that also disturb topsoil to release spores into the air. Compliance with independently enforceable obligations, including SCAQMD and AVAQMD fugitive dust control rules (e.g., Rule 403), and applicable Cal/OSHA requirements for protection of construction workers, operational workers, and other people who work outdoors and who are exposed to wind and dust (Cal/OSHA 2022) would reduce impacts, but not necessarily to a less-than-cumulatively considerable level.

The mitigation identified would be required to reduce the Project's incremental contribution to significant cumulative impacts relating to fugitive dust, localized air pollutants, TAC emissions and Valley Fever.

Mitigation Measure: Implement Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, 3.4-6, 3.4-7, and 3.4-8.

Significance after Mitigation: Future projects facilitated by Draft 2045 CAP measures and actions may result in localized air pollutant and TAC emissions that could exceed the SCAQMD and AVAQMD significance thresholds for each of the horizon years. However, even with implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, 3.4-6, 3.4-7, and 3.4-8, the impacts related to fugitive dust, localized TAC emissions, and associated health risk impacts would be cumulatively considerable and thus significant and unavoidable. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level, and feasible mitigation may not be available for future projects facilitated by the Draft 2045 CAP for horizon years 2030, 2035, and 2045. Impacts would be significant and unavoidable. The magnitude of long-term impacts may increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. No additional feasible mitigation measures are available. Valley Fever cumulative impacts would be significant, and the project contribution would be cumulatively considerable; however, implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce Valley Fever cumulative impacts to less than significant.

Criterion d)

Impact 3.4-8: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact due to other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less-than-Significant Cumulative Impact*)

The SCAQMD and AVAQMD have not adopted separate cumulative thresholds applicable to other emissions (such as those leading to odors). Thus, cumulative impacts are based on the thresholds used for project-specific impacts.

Past, present, and reasonably foreseeable future projects (in combination with projects implementing Draft 2045 CAP measures and actions) across horizon years 2030, 2035, and 2045

could include common sources of odors associated with development within a community including the use of VOC-containing architectural coatings and solvents, composting and organic waste management, municipal solid waste collection areas, and transfer stations and material recovery facility operations. The AVAQMD and SCAQMD have adopted rules for controlling nuisance emissions, such as those leading to odors, from community sources.

AVAQMD Rule 402 and SCAQMD Rule 402 both prohibit emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. The AVAQMD and SCAQMD both regulate the VOC content of architectural coatings and solvents via several adopted rules including Rules 442, 1107, 1113, and 1171, as numbered by both air districts. The SCAQMD, which has jurisdiction over an area with a substantially greater population density than the AVAQMD, has adopted additional source-specific rules that assist in controlling odors, including Rule 410, for controlling odors from transfer stations and material recovery facilities, and Rule 1138, for controlling emissions from restaurant cooking operations. While the AVAQMD has no rules identical to SCAQMD Rule 410 and Rule 1138, potential odorous emissions still would be subject to the overall nuisance requirements in Rule 402. For composting and related operations, SCAQMD Rules 1133, 1133.2, and 1133.3 and AVAQMD Rule 1133 requires the reduction of potentially odorous emissions of VOCs and ammonia from composting and related operations.

Future projects facilitated by the Draft 2045 CAP measures and actions across horizon years 2030, 2035, and 2045, as well as other cumulative projects, would be required to comply with all applicable regulatory requirements for controlling emissions such as those leading to odors, thereby assuring less-than-significant impacts. Therefore, cumulative impacts related to exposure of people to other emissions such as those leading to odors would be less than significant, and the Project's contribution to this impact would not be cumulatively considerable. Although the magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, the cumulative impact would remain less than significant for all horizon years.

Mitigation: None required.

3.5 Biological Resources

This section identifies and evaluates issues related to biological resources to determine whether the Draft 2045 CAP would result in a significant impact related to candidate or special-status species, sensitive natural communities, wetlands, or oak woodlands. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to biological resources relate to: the California Department of Fish and Wildlife's (CDFW's) status as a trustee agency and a responsible agency and use of CDFW protocols and guidelines; the Antelope Valley Regional Conservation Investment Strategy; the South Coast Missing Linkages Project; the National Audubon Society's designation of the Antelope Valley (Lancaster) as an Important Bird Area and an area in the western Antelope Valley as one of 424 Globally Important Bird Areas due to global conservation concern (National Audubon Society 2022a, 2022b); impacts to wildlife corridors/migration; impacts on special-status species, such as Joshua Trees, burrowing owl, Swanson's hawk, Mohave ground squirrel, desert tortoise, mountain lion, and alkali mariposa lily; and impacts on sensitive natural communities. Comments also relate to impacts on biodiversity, ecosystems, and species, including from collisions with structures, lighting, noise, and human activity; impacts to land currently used by birds for foraging and nesting; and the potential for projects facilitated by Draft 2045 CAP measures and actions to divert water from local watercourses or result in impacts from ground-mounted, utility-scale solar development.

3.5.1 Setting

3.5.1.1 Study Area

The study area for this analysis of impacts on biological resources consists of the area where the 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that composes the unincorporated areas of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*.

3.5.1.2 Environmental Setting

Los Angeles County exhibits native habitats corresponding with the California and Desert Floristic Provinces. The County experiences a Mediterranean climate, which is generally characterized by concentrated winter precipitation and dry summers, within the California Floristic Province and a desert climate within the Desert Floristic Province. The County encompasses the junction of the Transverse and Peninsular mountain ranges, and supports a variety of habitats within mountain ranges, broad alluvial valleys, deserts, and coastal shorelines ranging in elevation from sea level to over 10,000 feet. Los Angeles County hosts one of the most dense and populous urban metropolises in the country, and this urbanization has substantially

altered native habitats. However, native habitats still remain within the mountainous, island, and desert areas, as well as in some drainage areas.

Los Angeles County contains a variety of vegetation types with a diverse number of plant and animal species. Vegetation communities in Los Angeles County can be broadly categorized as coastal shoreline, coastal marine, salt marsh, freshwater marsh, coastal scrub, chaparral, grassland, woodland, coniferous forest, and desert.

Special-Status Species

Special-status species are defined as those plants and wildlife that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or local agencies as being under threat from development pressure as well as natural causes. Many of these species receive specific protection that is defined and regulated by the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). Other species have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities and/or special districts to meet local conservation objectives. Special-status species include all of the following:

- Species listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the FESA or the CESA.
- Species that meet the definitions of rare or endangered under CEQA Guidelines Section 15380.
- Plants considered “rare, threatened, or endangered in California” by the California Native Plant Society (CNPS), adopted by CDFW, and assigned a California Rare Plant Rank (CRPR), which are summarized as follows: CRPR 1A (plants presumed extirpated in California and either Rare or Extinct elsewhere); CRPR 1B (plants that are rare, threatened, or endangered in California and elsewhere); CRPR 2A (plants presumed extirpated in California but more common elsewhere); CRPR 2B (plants that are rare, threatened, or endangered in California but more common elsewhere); CRPR 3 (plants about which more information is needed); and CRPR 4 (plants of limited distribution; a watch list). CRPR 1B and 2B meet the definitions of Section 1901 of the Native Plant Protection Act (NPPA) or California Fish and Game Code Sections 2062 and 2067 (CESA), and are eligible for state listing. Many CRPR 3 and 4 species do not meet the definitions of special-status plants but may be significant locally and are recommended for consideration under CEQA (CNPS 2001). The CRPR categorizations are appended with “threat ranks” that parallel the ranks used by the CNDDDB, and are added as a decimal code after the CRPR (e.g., CRPR 1B.1). The threat codes are as follows: 0.1 (seriously threatened in California [over 80 percent of occurrences threatened/high degree and immediacy of threat]), 0.2 (moderately threatened in California [20–80 percent of occurrences threatened/moderate degree and immediacy of threat]), and 0.3 (not very threatened in California [<20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known]).
- Species designated by CDFW as “species of special concern” or “special animals.”
- Species designated “fully protected” in California (Fish and Game Code Sections 3511, 4700, and 5050).

- Species and plants considered rare and endangered in California by CDFW, a member of the NatureServe Network, which are summarized as follows: S1 (Critically Imperiled: At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors); S2 (Imperiled: At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors); S3 (Vulnerable: At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors); and S4 (Apparently Secure: At a fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors). A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks. By adding a “?” to the rank: e.g., S2?, this represents more certainty than S2S3, but less certainty than S2.

A complete list of special-status plant and wildlife species that have been documented to occur in Los Angeles County is provided in **Appendix C, Biological Resources**. A total of 275 special-status plant species and 239 special-status wildlife species have been documented in Los Angeles County (CDFW 2021a; USFWS 2021). See **Figure 3.5-1, Sensitive Biological Resources**.

Sensitive Natural Communities

Sensitive natural communities are designated by CDFW, or occasionally in local policies and regulations, and are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent and/or distribution. These communities are considered threatened enough to warrant some level of protection either through the CEQA review process or by local regulations. CDFW tracks such communities through the California Natural Diversity Database (CNDDDB), and plant alliances or associations with a state rank of S1 through S3 are considered to be sensitive natural communities by the state to be addressed in the CEQA process. CDFW uses NatureServe’s Heritage Methodology for ranking natural communities by their rarity and threat, ranging from 1 (very rare and threatened) to 5 (demonstrably secure) (Faber-Langendoen et al. 2012).

The following 28 sensitive natural communities are recorded within Los Angeles County (CDFW 2021b):

- California Walnut Woodland
- Island Cherry Forest
- Mainland Cherry Forest
- Mojave Riparian Forest
- Riversidian Alluvial Fan Sage Scrub
- Southern Coastal Salt Marsh
- Southern Dune Scrub
- Southern Mixed Riparian Forest
- Southern Willow Scrub
- Wildflower Field
- Canyon Live Oak Ravine Forest
- Island Ironwood Forest
- Maritime Succulent Scrub
- Open Engelmann Oak Woodland
- Southern Coastal Bluff Scrub
- Southern Cottonwood Willow Riparian Forest
- Southern Foredunes
- Southern Riparian Scrub

- Valley Oak Woodland
- Walnut Forest
- Joshua Tree Woodland
- Southern California Arroyo Chub/Santa Ana Sucker Stream
- Southern California Coastal Lagoon
- Southern California Steelhead Stream
- Valley Needlegrass Grassland
- Southern California Threespine Stickleback Stream
- Southern Coast Live Oak Riparian Forest
- Southern Riparian Forest
- Southern Sycamore Alder Riparian Woodland

Critical Habitat

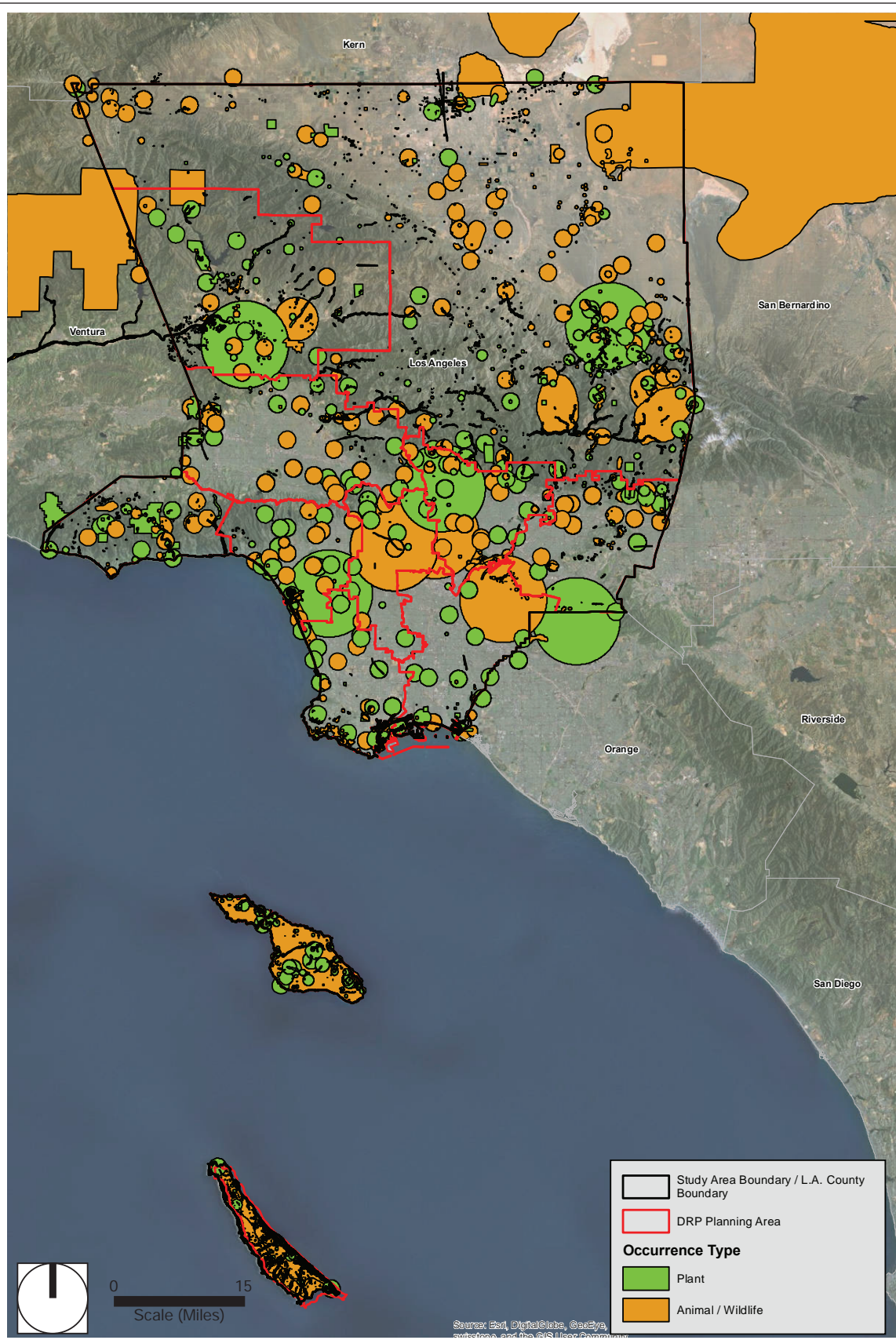
Critical habitat is designated for the survival and recovery of federally listed endangered or threatened species. Protected habitat includes areas for foraging, breeding, roosting, shelter, and movement or migration. U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) has designated the following 17 species with critical habitats located within Los Angeles County under the FESA (United States Code [U.S.C.] Title 16, Section 1533(a)(3) [16 USC 1533(a)(3)]) (USFWS 2021). See **Figure 3.5-2, *Designated Critical Habitats***.

- Arroyo Toad
- California Condor
- Coastal California Gnatcatcher
- Least Bell's Vireo
- Mountain Yellow-legged Frog
- Santa Ana Sucker
- Spreading Navarretia
- Tidewater Goby
- Southern California Steelhead
- Braunton's Milk-vetch
- California Red-legged Frog
- Desert Tortoise
- Lyon's Pentachaeta
- Palos Verdes Blue Butterfly
- Southwestern Willow Flycatcher
- Thread-leaved Brodiaea
- Western Snowy Plover

Jurisdictional Waters

Wetlands and permanent and intermittent drainages, creeks, and streams identified as waters of the United States are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under Section 404 of the federal Clean Water Act (CWA). These features also are considered waters of the state subject to jurisdiction by the State Water Resources Control Board (SWRCB) and the regional water quality control boards (RWQCBs). All rivers and flood control drainages within Los Angeles County that flow to the ocean are within the jurisdiction of these agencies. Major watersheds within Los Angeles County include: Los Angeles River, San Gabriel River, Santa Clara River, Antelope Valley Watershed, Malibu Creek, Ballona Creek, and Dominguez. See **Figure 3.5-3, *Major Watersheds***.

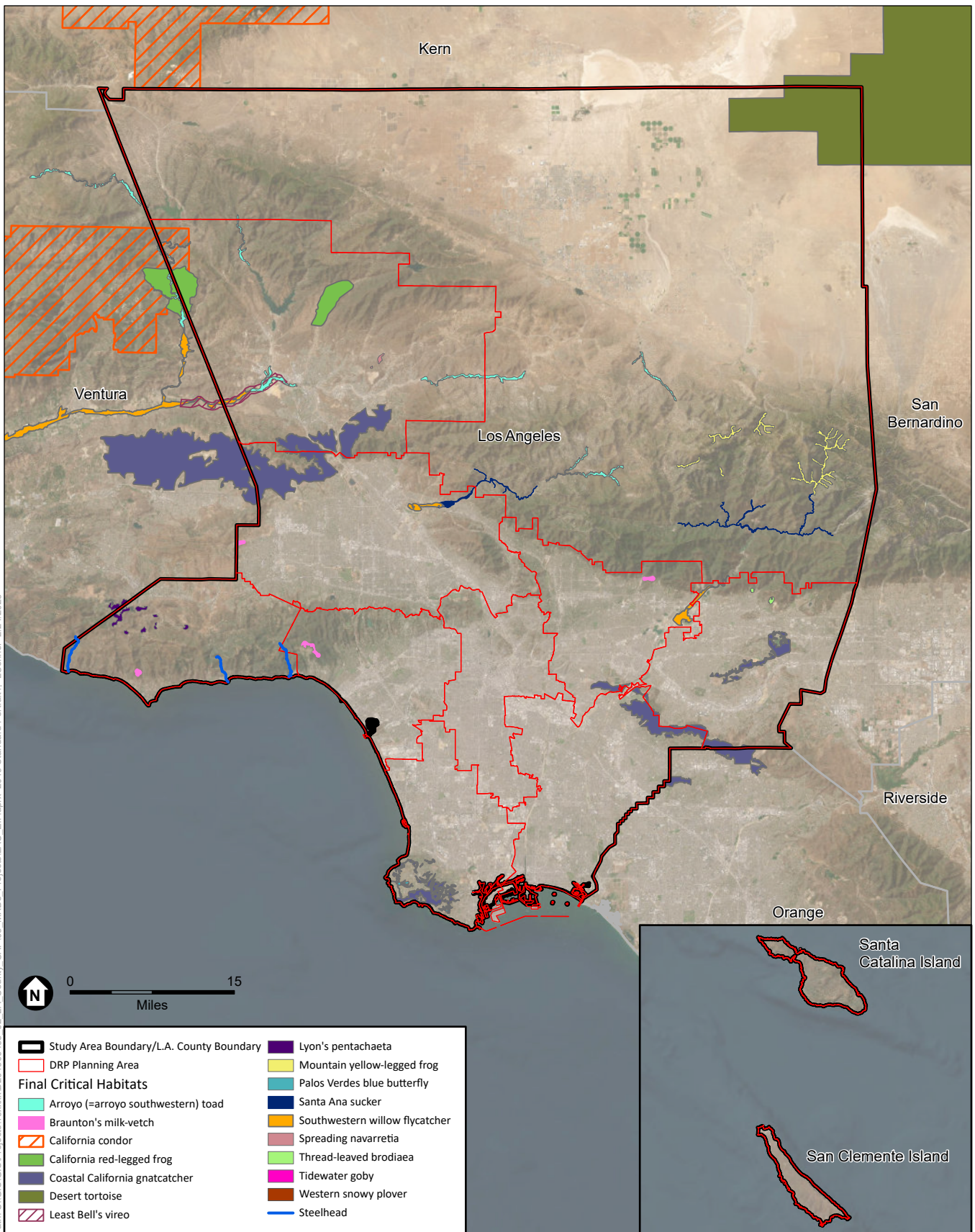
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SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-1
Sensitive Biological Resources



SOURCE: ESRI, 2021; Los Angeles County General Plan, 2014; ESA, 2023

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-2
Designated Critical Habitats



SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-3
Major Watersheds



Streambeds, channels, or banks of any river, stream, or lake are subject to regulation by CDFW under Fish and Game Code Section 1602. A *stream* is defined under these regulations as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFW jurisdiction typically extends to the edge of the riparian vegetation canopy.

Wildlife Movement Corridors

Habitat linkages are contiguous areas of open space that connect two larger habitat areas. Linkages allow for both diffusion and dispersal of a variety of species within the landscape. In addition, linkages can serve as primary habitat for some smaller species. *Corridors* are linear linkages between two or more habitat patches. Corridors provide for movement and dispersal, but do not necessarily include habitat capable of supporting all life history requirements of a species.

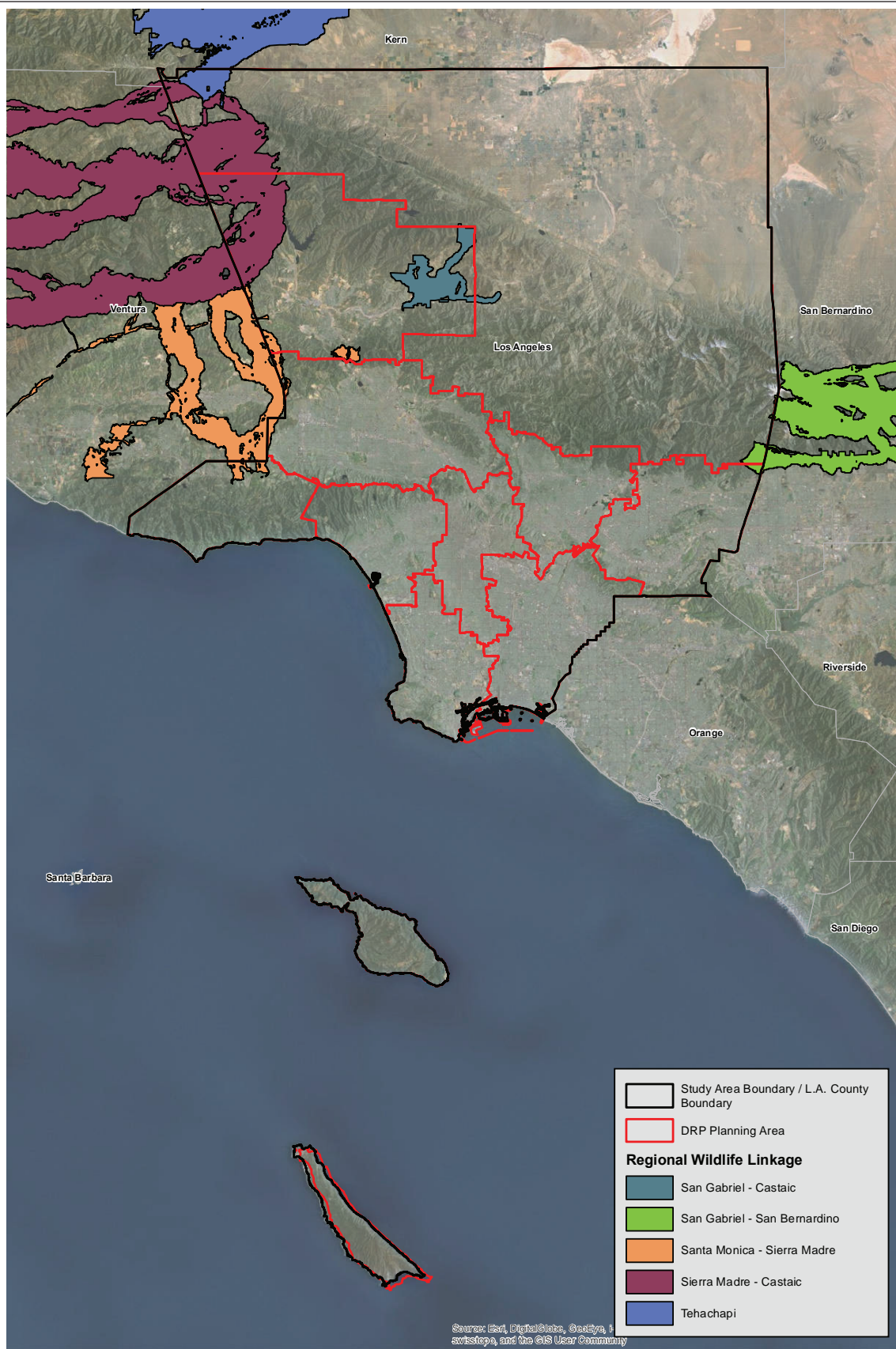
Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor use and wildlife movement patterns varies greatly among species.

The South Coast Missing Linkages report is the result of a collaborative interagency effort to identify missing landscape linkages throughout Southern California that are important to habitat connectivity. Within the Los Angeles County region, there are five regional linkages identified by South Coast Wildlands and the immediately surrounding areas (South Coast Wildlands 2008). See **Figure 3.5-4, Regional Wildlife Linkages**.

- San Gabriel–Castaic Connection
- San Gabriel–San Bernardino Connection
- Santa Monica–Sierra Madre Connection
- Sierra Madre–Castaic Connection
- Tehachapi Connection

In addition to the five regional linkages, other important habitat linkages in Los Angeles County include those along linear topographic features such as principal watercourses of the County: the Antelope Wash, Little Rock Creek, Big Rock Creek, San Antonio Canyon, San Gabriel River, Los Angeles River, Santa Clara River, Topanga Canyon, Malibu Canyon, Zuma Canyon, and the Arroyo Sequit. The County also recognizes the San Andreas Fault linkage, entirely within the Antelope Valley Planning Area, which transits Los Angeles County from the far east end to the far west end, and provides linkage from the eastern San Gabriel Mountains to the base of the Tehachapi Mountains in the northwestern corner of the County (Los Angeles County 2014a). See **Figure 3.5-5, Regional Habitat Linkages**.

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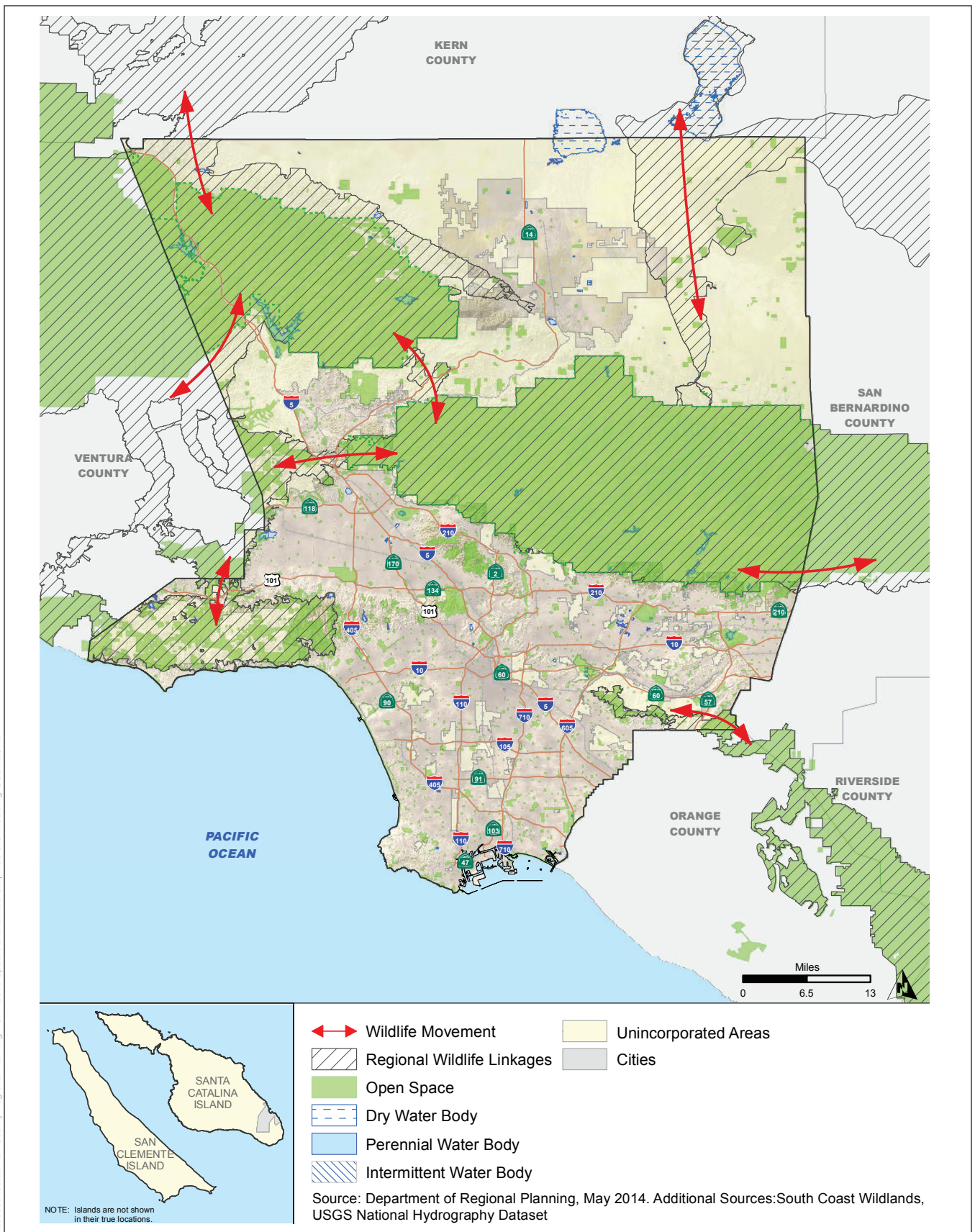
SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-4
Regional Wildlife Linkages



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SOURCE: Los Angeles County General Plan, 2014

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.5-5
Regional Habitat Linkages



3.5.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Endangered Species Act

The FESA (16 U.S.C. 1531 et seq.) regulates endangered and threatened species and the ecosystems upon which they depend. The FESA defines species as threatened or endangered and provides regulatory protection for listed species, and establishes a program for the conservation and recovery of threatened and endangered species, as well as the conservation of designated critical habitat that USFWS determines is required for the survival and recovery of these listed species.

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and NMFS share responsibilities for administering the FESA and regulate the “taking” of species listed as threatened or endangered. The FESA prohibits the “taking” of listed species of fish, wildlife, and plants without special exemption. Section 9 defines *take* as to “harass, harm, pursue, hunt, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) domestically implements a series of international treaties that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird” (16 U.S.C. 703).

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668) protects bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of these species, and establishes civil penalties for violation of this act.

Clean Water Act

The federal CWA (33 U.S.C. 1251 et seq.) is intended to achieve restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters. Section 401 requires a project proponent for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The RWQCB administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Guidelines for implementation are referred to as the *Section 404(b)(1) Guidelines*, which were developed by the U.S. Environmental Protection Agency in conjunction with USACE (Code of Federal Regulations Title 40, Section 230). The

guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

State

California Endangered Species Act

The CESA (Fish and Game Code Section 2050 et seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if CDFW determines that the federal incidental take authorization is “consistent” with the CESA under Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, an incidental take permit is required under Section 2081(b).

Clean Water Act Section 401 Certification and Porter-Cologne Water Quality Control Act

The State of California regulates discharge of fill material into waters of the state pursuant to Section 401 of the CWA. Section 401 compliance is a federal mandate implemented by the state. Where a Section 404 permit is required, a Section 401 water quality certification from the RWQCB also is required.

In addition, the state regulates water quality for all waters of the state, including isolated wetlands, as defined under the Porter-Cologne Water Quality Control Act. The state regulates all discharges that can affect water quality, even if there is no significant nexus to a waters of the United States. In such instances, a waste discharge permit may be required even though federal CWA Section 404 permits are not required.

California Fish and Game Code

Sections 1600–1616. Under these sections of the Fish and Game Code, a project proponent is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a *stream* is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a lake and streambed alteration agreement, which becomes part of the plans, specifications, and bid documents for the project.

Sections 3503, 3503.5, 3513, and 3800. Under these sections, a project proponent is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey

or their nests or eggs; the taking or possessing of any migratory nongame bird as designated in the MBTA; the taking, possessing, or needlessly destroying of the nest or eggs of any bird; or the taking of any nongame bird pursuant to Fish and Game Code Section 3800.

Sections 3511, 4700, 5050, and 5515. These sections of the Fish and Game Code prohibit take or possession of fully protected species. CDFW does not have the authority to permit incidental take of fully protected species when activities are proposed in areas inhabited by those species.

Native Plant Protection Act

California's NPPA requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that otherwise would be destroyed. Landowners are required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

CEQA Guidelines Section 15380

In addition to the protections provided by specific federal and state statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species nonetheless may be considered rare or endangered for purposes of CEQA if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the CESA and the section of the Fish and Game Code dealing with rare or endangered plants or animals.

Local

Los Angeles County General Plan

As part of the General Plan's Conservation/Open Space and Land Use elements, the County has identified and adopted policies for Significant Ecological Areas (SEAs). The objective of the SEAs is to preserve Los Angeles County's genetic and physical ecological diversity by designating biological resource areas capable of sustaining themselves into the future. The SEA designation is given to land that contains irreplaceable biological resources, and includes undisturbed or lightly disturbed habitats that support valuable and threatened species and linkages and corridors to promote species movements.

SEAs are not wilderness preserves, and much of the land within SEAs is privately held, used for public recreation or abuts developed areas. The SEAs are intended to ensure that privately held lands retain the right of reasonable use, while avoiding activities and developments that are incompatible with the long-term survival of the biological resources and habitats within the SEAs. Biological resource protection in SEAs is regulated under Chapter 22.102 of the Los Angeles County Planning and Zoning Code.

Los Angeles County Oak Tree Ordinance

Chapter 22.174 of the Los Angeles County Code of Ordinances is the Oak Tree Ordinance. The ordinance recognizes oak trees within the County as a historical, aesthetic, and ecological

resource. The ordinance applies to all unincorporated areas of the County. Several cities within the County may have adopted this or a similar ordinance. The Los Angeles County ordinance, in particular, prohibits a person to “cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak genus” that is 8 inches or more in diameter, any oak genus with more than one trunk whose combined trunks measure 12 inches or more in diameter, or any oak tree that has been provided as a project mitigation replacement tree without first obtaining a permit that requires compensation for loss of these trees. Heritage oaks are identified as 36 inches or more in diameter at breast height, or trees having significant historical or cultural importance.

Los Angeles County Oak Woodland Conservation Management Plan

The County adopted a California Oak Woodlands Conservation Management Plan pursuant to the requirements of Assembly Bill 242 in 2011 (Los Angeles County 2011). The Los Angeles County Oak Woodlands Conservation Management Plan provides consistent policy for the management of oak woodlands that can be incorporated into the General Plan and other relevant planning documents, developing a comprehensive and cohesive strategy for dealing with loss, and creating opportunities for recovering oak woodlands. The overall goal of this plan is to preserve and restore oak woodlands so they are conserved in perpetuity with no net loss. The Los Angeles County Oak Woodlands Conservation Management Plan includes recommendations to provide incentives to private property owners to voluntarily conserve oak woodlands; to fund willing landowners’ purchase of oak woodlands or conservation easements for habitat protection; to preserve oak woodlands through the County’s land use planning and regulatory processes; and to quantify the economic and environmental benefits of oak woodland preservation.

The 2014 *Los Angeles County Oak Woodlands Conservation Management Plan Guide* (Los Angeles County 2014b) provides more details on how project-level CEQA documents should assess and mitigate impacts on oak woodlands. It details the process by which the County determines the extent of oak woodland habitat and associated requirements for reporting, analysis, and mitigation. It states that if a project cannot be redesigned to avoid impacts to oak woodlands, an appropriate mitigation strategy would be developed by selecting from a list of recommended mitigation measures, prioritized by preference for intact woodlands. These include acquiring comparable oak woodland habitat, restoring degraded oaks woodlands off-site or in-site, and contributing to the County’s Oak Forests Special Fund at a minimum two to one canopy cover area for the amount removed.

Los Angeles County Hillside Management Areas

The Hillside Management Area (HMA) Ordinance applies to all unincorporated areas of the County that contain terrain with a natural slope of 25 percent or greater. The goal of the ordinance is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. Locating development outside of HMAs to the greatest extent feasible will be the first emphasis of sensitive hillside design. Where avoidance is not feasible, development of HMAs will be located in the lowest and flattest areas of the hillside to reduce impacts on steeper hillside areas. Last, development will use a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the Los Angeles County Planning and Zoning Code.

3.5.2 Impact Analysis

3.5.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on biological resources if it would:

- a) Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- b) Have a substantial adverse impact on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- c) Have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means;
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.);
- f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (County Code, Title 22, Ch. 22.174), the SEAs (County Code, Title 22, Ch. 102), Specific Plans (County Code, Title 22, Ch. 22.46), Community Standards Districts (County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (General Plan, Figure 9.3); or
- g) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved state, regional, or local habitat conservation plan.

Based on the analysis documents in the Initial Study (Appendix A2), it was concluded that implementation of the Draft 2045 CAP would result in a less-than-significant impact with respect to criterion f) and no impact with respect to criterion g). Impacts to criterion f) have been determined to be less than significant based on requisite compliance with independently enforceable local policies and ordinances that would assure that biological resources are protected. The Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, would have no impact relative to criterion g) because there are currently no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved state, regional, or local habitat conservation plans in effect in unincorporated areas of the County. Accordingly, these considerations were not carried forward for more detailed review.

3.5.2.2 Methodology

The following impact analysis is based on existing biological resources located within the unincorporated areas of the County. Biological resources evaluated included sensitive habitats, special-status plant and animal species, and potential for wildlife movement corridors and were based on a literature review from database research results. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.5.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics because the location and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time. As an EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, environmental impacts of implementing the Draft 2045 CAP specific measures and actions were considered as part of this analysis to the degree that specific information about such implementation is known. Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures that could result, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of biological resources-related impacts. These and other relevant measures and actions include those summarized below.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward decarbonization of the energy supply (e.g., Measure ES2: Procure Zero-Carbon Electricity, Measure ES3: Increase Renewable Energy Production, and Measure ES4: Increase Energy Resilience), the electrification of vehicles (e.g., Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales, Measure T7: Electrify County Fleet Vehicles, Measure T8: Accelerate Freight Decarbonization, and Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment) and the electrification of

buildings (Strategy 5, Decarbonize Buildings) are particularly relevant to the analysis of impacts to biological resources because related development could affect special-status species and habitats, sensitive natural communities, state or federally protected wetlands, interference with species movement or impediment of the use of native wildlife nursery sites, or the conversion of oak woodlands or other unique native woodlands. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

The timeframe during which the implementation of these actions and measures would affect special-status species and habitats (including sensitive natural communities and protected wetlands), interfere with species movement, or result in a conversion of woodlands or conflict with an adopted HCP would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually impacts one or more of these biological resources. The impact would occur immediately and, once it occurs, could last for a limited time (e.g., until fill is removed or a hydrological interruption is corrected) or could last long-term. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific impacts related to biological resource impacts of the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, are discussed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will be developing an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Impact 3.5-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial direct adverse impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. (*Less than Significant with Mitigation Incorporated*)

A total of 275 special-status plant species and 239 special-status wildlife species have been documented in Los Angeles County. While the Draft 2045 CAP is a policy document and does not include specific projects that would have adverse impacts on special-status species and their habitat, various projects facilitated by the Draft 2045 CAP measures and actions could adversely affect special-status species and their habitat.

Individual projects facilitated by Draft 2045 CAP measures and actions could affect special-status species and their habitat when expanding bicycle and pedestrian networks within recreational areas (Measure T3), procuring zero-carbon electricity (Measure ES2), increasing renewable energy production on new development (Measure ES3), expanding energy resilience (Measure ES4), and facilitating new or expanded waste collection and processing facilities (Measure W1 and W2). These measures may facilitate new development such as waste processing facilities or large utility-scale energy projects and related infrastructure (e.g., solar photovoltaic energy generation, battery storage, substation and/or transmission projects) in the Antelope Valley or other rural unincorporated areas of the County. They could cause mortality of special-status species or result in habitat loss or modification of such species. Increasing recycled-water use for irrigation or other purposes (Measure E5) also could affect special-status species and their habitats in watersheds that rely on recycled water due to other water diversions or drought. Direct impacts on special-status species or a reduction of their habitat would be a significant impact.

The Draft 2045 CAP measures promoting transportation options (Measures T3 and T4) and increasing renewable energy production on existing infrastructure (Measure ES3) would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent that projects facilitated by these measures would be located in urban environments and on disturbed areas with existing infrastructure, they would not be expected to affect special-status species and their habitat.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land, conserve natural lands, and plant special-status tree species, which could support and increase special-status species and their habitat. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation, support the conservation of forest lands and prevent land conversion of agricultural and natural lands, and increase urban forests. The implementation of projects facilitated by these measures would benefit special-status species and their habitats by conserving natural lands and adding potential resources and individual special-status trees when planting trees in the urban environment. These measures may facilitate new development such as utility-scale

energy projects (e.g., solar, battery storage, substation, transmission) in the Antelope Valley or other rural areas and could affect special-status species by direct removal or conversion of suitable habitat or indirectly through introduction of barriers to movement or reflective surfaces interfering with wildlife migration.

Additionally, the Conservation and Natural Resources Elements of the General Plan would continue to be followed and enforced to protect biological resources, including General Plan Mitigation Measures BIO-1 and BIO-2, as well as Mitigation Measure 3.5-1 and Mitigation Measure 3.5-2. Mitigation Measure 3.5-1 would ensure that, on a project-specific level, necessary surveys would be conducted and a biological resources assessment prepared to analyze the specific impacts of projects facilitated by the Draft 2045 CAP and would propose appropriate mitigation measures to offset those impacts. Mitigation Measure 3.5-2 would avoid direct mortality to special-status species from construction activities by requiring preconstruction surveys (and construction monitoring where warranted) for special-status species as necessary. Federal and state regulations would continue to apply. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.5-1: The County shall require biological resources to be analyzed on a project-specific level by a qualified biological consultant. Prior to or during the preparation of project-level environmental documents, and prior to the start of construction activities, a biological resources assessment shall be conducted to characterize the project site. Suitable buffer areas surrounding the project site shall be included where native habitat is contiguous with off-site habitat areas. The assessment and analysis shall emphasize identifying endangered, threatened, rare, and other special-status species; regionally and locally unique species; and sensitive natural communities, jurisdictional waters, and oak woodlands. Focused surveys shall be conducted as necessary to determine the presence of special-status species (e.g., focused sensitive plant or wildlife surveys). Focused surveys shall be conducted according to established CDFW or USFWS protocols, if available for the object species. Natural communities shall be mapped and identified according to floristic alliance- and/or association-based mapping protocols consistent with CDFW natural communities. A jurisdictional delineation may be required if there are signs of potentially regulated wetlands and non-wetland waters. A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze direct and indirect impacts on biological resources, and propose mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as those species with potential to occur on-site).

Mitigation Measure 3.5-2: If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as described in Mitigation Measure 3.5-1) shall include a mitigation measure requiring pre-construction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. The mitigation measures shall also include consultation with and obtaining permits from USFWS or CDFW prior to construction, if required by FESA or CESA for listed endangered and threatened species. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite

habitat areas. Relocation of such species into areas of appropriate restored habitat would have the best chance of replacing/incrementing populations that are lost due to habitat converted to development. Relocation to restored habitat areas shall be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume.

Significance after Mitigation: Less than significant with mitigation incorporated.

Impact 3.5-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. (Significant and Unavoidable)

Although direct impacts on special-status species would be mitigated, significant indirect impacts on special-status species would occur due to the loss of common, non-sensitive habitat. Special-status species are dependent on both sensitive and common habitats and with the development facilitated by Draft 2045 CAP measures and actions, habitat and resources to support special-status species could be reduced. Thus, even with the implementation of the mitigation measures, indirect impacts on special-status species would remain significant and unavoidable. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2.

Significance after Mitigation: Significant and unavoidable. No additional feasible mitigation measures are available.

Criterion b) Whether the Project would have a substantial adverse impact on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.

Impact 3.5-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS. (Significant and Unavoidable)

A total of 28 sensitive natural communities have been identified within Los Angeles County. While the Draft 2045 CAP is a policy document and does not include specific projects that would have adverse impacts on sensitive natural communities, various projects facilitated by the Draft 2045 CAP measures and actions could adversely impact sensitive natural communities. Oak woodlands are discussed under criterion e), but CDFW sensitive oak natural communities (Valley Oak Woodland, Canyon Live Oak Ravine Forest, and Open Engelmann Oak Woodland) included on the CDFW sensitive natural communities list are covered here under criterion b).

Individual projects facilitated by Draft 2045 CAP measures and actions could affect sensitive natural communities when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, transmission) in the Antelope Valley or other rural areas and could affect sensitive natural communities by direct removal or conversion of habitat. Also, increasing recycled-water use for irrigation or other purposes may also potentially affect sensitive natural communities in watersheds that rely on recycled water for survival due to water diversions or drought. The Draft 2045 CAP measures and actions could facilitate projects that would result in a reduction of sensitive natural communities, which is considered significant and unavoidable.

The Draft 2045 CAP measures promoting transportation options within an urbanized area and increasing renewable energy production on existing infrastructure would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent that projects facilitated by these measures would be located in urban environments and on disturbed areas with existing infrastructure, they would not be expected to affect sensitive natural communities.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land, and conserve natural lands including sensitive natural communities. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation and support the conservation of forest lands and prevent land conversion of agricultural and natural lands, which could directly benefit sensitive natural communities.

Additionally, the Conservation and Natural Resources Elements of the General Plan would continue to be followed and enforced to protect biological resources, including through General Plan Mitigation Measures BIO-1 and BIO-2, as well as Mitigation Measures 3.5-1 and 3.5-5. Mitigation measures would apply only if specific projects have potentially significant impacts. Federal and state regulations would continue to apply.

Although direct impacts on sensitive natural communities would be mitigated, no mitigation is provided for indirect impacts on sensitive natural communities through the loss of common, non-sensitive habitat. Sensitive natural communities are dependent on both sensitive and common habitats, and with the potential increase in development to implement the Draft 2045 CAP, measures and actions could reduce common habitat and resources to support sensitive natural communities. Thus, even with the implementation of recommended mitigation measures, impacts on sensitive natural communities that could result from projects facilitated by the Draft 2045 CAP would remain significant and unavoidable.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-5.

Significance after Mitigation: Significant and unavoidable. No additional feasible mitigation measures are available.

Criterion c) Whether the Project would have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact 3.5-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with Mitigation Incorporated*)

Los Angeles County supports numerous water bodies (e.g., San Gabriel River and Santa Clara River) as well as smaller streams and tributaries that support important riverine and riparian habitat, including state or federally protected wetlands. Federally protected wetlands are located within unincorporated areas of the County, although parcel-specific locations are not currently known. The Draft 2045 CAP is a policy document that does not include specific projects that would have adverse impacts on state and federally protected wetlands; however, projects facilitated by Draft 2045 CAP measures and actions could adversely affect state and federally protected wetlands.

Individual projects facilitated by Draft 2045 CAP measures and actions could affect state or federally protected wetlands when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying all new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, and transmission infrastructure) in the Antelope Valley or other undisturbed areas and could affect state or federally protected wetlands (if present) through direct removal, filling, hydromodification, or diversion or change in water quality. Impacts on state or federally protected wetlands are considered significant without mitigation.

The Draft 2045 CAP measures promoting transportation options within an urbanized area and increasing renewable energy production on existing infrastructure would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent these measures would facilitate projects located in urban environments and on disturbed areas with existing infrastructure, they are not expected to affect state or federally protected wetlands.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land and conserve natural lands including state or federally protected wetlands. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation and support the conservation of forest lands and prevent land conversion of agricultural and natural lands, which could directly benefit state or federally protected wetlands.

As described in Section 3.5.1.3, *Regulatory Setting*, Fish and Game Code Section 1600 et seq. regulates the alteration of streambeds through issuance of a lake and streambed alteration agreement (LSAA). Compliance with the requirements of these provisions would protect and conserve the fish and wildlife resources of the state by requiring avoidance and minimization measures in appropriate circumstances. Conditions and measures required by the LSAA process may include the following:

avoidance of resources; appropriate vegetative buffers and/or setbacks adjoining the stream or wetland feature; erosion and pollution control measures; protective measures for downstream resources; on- and/or off-site habitat creation, enhancement, or restoration; and/or protection and management of mitigation lands. Projects affecting CDFW jurisdictional resources are expected to compensate with mitigation at no less than 2:1 for the affected stream and associated natural community. Similarly, the Clean Water Act requires avoidance and minimization of impacts for federally protected wetlands for which a Clean Water Act Section 404 permit through USACE and a Section 401 certification through the RWQCB would be required.

Impacts may be significant in the absence of mitigation measures. The Conservation and Natural Resources Elements of the General Plan would continue to be followed and enforced to protect biological resources, including through General Plan Mitigation Measures BIO-1 and BIO-2, as well as Mitigation Measures 3.5-1 and 3.5-3. Federal and state regulations would continue to apply. For example, Mitigation Measure 3.5-1 would ensure that surveys are conducted to identify any state or federally protected wetlands prior to any new development projects implemented under the Draft 2045 CAP measures. Mitigation Measure 3.5-3 would ensure that any new development projects implemented under the Draft 2045 CAP measures and actions would provide appropriate mitigation for impacts on state and federally protected wetlands. Thus, with the implementation of the recommended mitigation measures, impacts on state or federally protected wetlands due to potential future projects would be less than significant.

Mitigation: Implement Mitigation Measures 3.5-1.

Mitigation Measure 3.5-3: Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project applicant shall obtain a Clean Water Act Section 404 permit from USACE, a Clean Water Act Section 401 certification from the RWQCB, and a Streambed Alteration Agreement/LSAA permit under Section 1602 of the California Fish and Game Code from CDFW, where the project warrants.

Significance after Mitigation: Less-than-significant impact with mitigation incorporated.

Criterion d) Whether the Project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact 3.5-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Significant and Unavoidable)

Los Angeles County supports five regional wildlife linkages in addition to County area habitat linkages discussed in Section 3.5.1.5, *Wildlife Movement Corridors*. The Draft 2045 CAP is a policy document and does not include specific projects that would have adverse impacts on wildlife corridors, habitat linkages, and native wildlife nursery sites; however, projects facilitated by

Draft 2045 CAP measures and actions could adversely affect wildlife corridors, habitat linkages, and native wildlife nursery sites.

Projects facilitated by Draft 2045 CAP measures and actions could adversely affect wildlife corridors, habitat linkages, and native wildlife nursery sites when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying all new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, transmission infrastructure) in the Antelope Valley or other rural areas and would affect wildlife corridors, habitat linkages, and native wildlife nursery sites if they narrow existing corridors or remove them completely. Impact associated with narrowing or removing existing wildlife corridors, habitat linkages, and/or native wildlife nursery sites would be considered significant and unavoidable.

The Draft 2045 CAP measures promoting transportation options within an urbanized area and increasing renewable energy production on existing infrastructure would likely be located within the urban environments and on disturbed areas with existing infrastructure. To the extent that these measures would facilitate projects located in urban environments and on disturbed areas with existing infrastructure, they would not be expected to substantially affect wildlife corridors, habitat linkages, or native wildlife nursery sites. However, wildlife corridors and habitat linkages within urban environments, although often constrained, exist along waterways and stepping stone patches of remnant habitats, providing opportunities for wildlife movement near and within developed areas. The Draft 2045 CAP measures and actions would incrementally increase constraints on these corridors and linkages, making passage within urban environments more difficult, albeit not impossible. Impacts of projects facilitated by Draft 2045 CAP measures and actions that are associated with narrowing or removing of urban wildlife corridor or habitat linkages would be considered significant and unavoidable.

The implementation of some Draft 2045 CAP measures would reduce development pressure on vacant and undeveloped land and conserve natural lands including wildlife corridors, habitat linkages, and native wildlife nursery sites. These Draft 2045 CAP measures include expanding a safer bikeway and pedestrian network to support alternative modes of transportation and support the conservation of forest lands and prevent land conversion of agricultural and natural lands, which could directly benefit wildlife corridors, habitat linkages, and native wildlife nursery sites.

Additionally, the Conservation and Natural Resources Elements of the General Plan would continue to guide activities throughout Los Angeles County, including its unincorporated areas, to protect biological resources, including through the implementation of General Plan Mitigation Measures BIO-1 and BIO-3, as well as Mitigation Measures 3.5-1 and 3.5-4. Mitigation measures would apply only if specific projects have potentially significant impacts. Federal and state regulations would continue to apply. Although any impacts on wildlife corridors, habitat linkages, and/or native wildlife nursery sites would be mitigated, the impacts would remain significant and unavoidable.

Mitigation: Implement Mitigation Measure 3.5-1.

Mitigation Measure 3.5-4: Proponents for individual projects facilitated by the Draft 2045 CAP provisions shall analyze impacts on wildlife movement and corridors that may introduce new or additional barriers to wildlife dispersal or constrain existing wildlife corridors to future movement, or indirect impacts constraining future wildlife movement. Where projects may interfere with wildlife movement, alternative designs shall be included in the analysis to reduce wildlife movement impacts. Corridors, linkages, and pinch points shall not be entirely closed by any development, and partial mitigation shall be mandatory for project-specific impacts on wildlife corridors and wildlife nursery sites. This shall include provision of a minimum of half the corridor width. (The width shall be at least what is needed to remain connective for the top predators using the corridor.) Mitigation can include preservation by deed in perpetuity of other parts of the wildlife corridor connecting through the development area; it can include native landscaping to provide cover on the corridor. For nursery site impacts, mitigation shall include preservation by deed in perpetuity for another comparable nursery site of the same species.

Significance after Mitigation: Significant and unavoidable. No additional feasible mitigation measures are available.

Criterion e) Whether the Project would convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.).

Impact 3.5-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.). (*Less than Significant with Mitigation Incorporated*)

Los Angeles County supports numerous oak woodlands and other unique native woodlands such as Joshua tree and Southern California black walnut woodlands. The Draft 2045 CAP is a policy document and does not include specific analyses of individual projects that would have adverse impacts on oak and other unique native woodlands; however, projects facilitated by the Draft 2045 CAP measures and actions could adversely affect native woodland resources.

Projects facilitated by Draft 2045 CAP measures and actions could potentially affect oak woodlands and other unique native woodlands when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying all new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, transmission infrastructure) in the Antelope Valley. Such projects would adversely affect oak woodlands and/or other unique native woodlands directly if they would entail tree or woodland removal, or indirectly (e.g., construction vehicles drive over woodland root systems). Increasing recycled-water use for irrigation or other purposes also could adversely affect oak woodlands and other unique native woodlands in watersheds that rely on recycled water due to

other water diversions within the watershed or drought. These measures could facilitate projects that would result in impacts on oak woodlands and other unique native woodlands.

The Conservation and Natural Resources Elements of the General Plan policies and the County's Oak Tree Ordinance (Chapter 22.174), would continue to apply to protect biological resources, including oak and other unique native woodlands. The County also administers the Oak Woodlands Conservation Management Plan, which similarly prohibits a person from removing or converting native woodlands unless a discretionary permit application has been approved by the Director of Regional Planning. Federal and state regulations also would continue to apply. Compliance with these directives would require proponents for individual projects facilitated by the Draft 2045 CAP measures and actions to assess the site-specific impacts of their projects on unique native woodlands, including those supporting rare, sensitive, or special-status plants and wildlife; those adjacent to a watercourse; and those with a State Rarity ranking of S1, S2, or S3. Compliance with these directives would require proponents of projects removing large numbers of trees to phase removal during project implementation or to provide other appropriate project-specific, site-specific mitigation. Removing trees in phases, for example, would minimize potential impacts on wildlife, primarily nesting birds, caused by the temporal loss of trees, and would provide structurally diverse woodlands while any on- or off-site mitigation for impacts on woodlands occurs.

Impacts may be significant in the absence of mitigation measures. Mitigation Measures 3.5-1 and 3.5-5 would reduce impacts to oak woodlands and other unique native woodlands by requiring surveys and impact analyses for these resources, and measures to reduce or compensate for impacts. Mitigation measures would apply only if specific projects have potentially significant impacts. With implementation of these mitigation measures, impacts on oak woodlands and other unique native woodlands would be less than significant.

Mitigation: Implement Mitigation Measure 3.5-1.

Mitigation Measure 3.5-5: Proponents of projects resulting in the loss of oak woodlands shall mitigate with in-kind replacement habitat at a minimum of 1:1 mitigation ratio documented through a County-approved habitat mitigation plan. The plan shall include the number of replacement trees (or acreage and average density of woodland), location of replacement woodland, understory habitat components, sequencing for any phased tree removal, and performance standards for mitigation. The plan shall include monitoring for a minimum of five years, with annual reports submitted to the County.

For oak woodlands impacts, project mitigation shall be consistent with recommendations in the County's Oak Woodland Conservation Management Plan and its 2014 Guide. If a project cannot be redesigned to avoid impacts to oak woodlands, an appropriate mitigation strategy would be developed by selecting from the Guide's list of recommended mitigation measures prioritizing the acquisition of oak woodland habitat comparable to the habitat that was affected over the restoration of degraded off-site and in-lieu fees. A Mitigation Monitoring Plan consistent with the Guide's recommendations would be prepared and implemented.

Significance after Mitigation: Less-than-significant impact with mitigation incorporated.

3.5.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on biological resources, the geographic area of consideration (i.e., the cumulative impacts study area) comprises the adjacent Tehachapi Mountains and Mojave Desert within Kern County to the north, the Mojave Desert and San Bernardino National Forest within San Bernardino County to the east, the Cleveland National Forest within Orange and Riverside Counties to the southeast, and Santa Monica Mountains and Los Padres National Forest within Ventura County to the west. Impacts could result at various locations within this area from the initiation of on-the-ground work implementing a project that facilitates Draft 2045 CAP measures and actions and until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.5-7: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. (*Significant Unavoidable Cumulative Impact*)

A list of 275 special-status plant and 239 special-status wildlife species that have been documented to occur within Los Angeles County is provided in Appendix C, *Biological Resources* (CDFW 2021a; USFWS 2021). Species are accorded special status generally because they are recognized as declining in extent and/or distribution. These species are considered to be sufficiently at risk to warrant some level of protection either through the CEQA review process or by local regulations. Accordingly, when the Project's impacts are added, a significant cumulative impact of past, present, and reasonably foreseeable projects would occur with respect to these species.

The Draft 2045 CAP would contribute a significant direct and indirect incremental contribution to this significant cumulative impact. The Project's contribution could be mitigated to a less than cumulatively considerable (less-than-significant) level for direct impacts by the implementation of Mitigation Measures 3.5-1 and 3.5-2. However, for indirect impacts resulting in part from the loss of common habitats and diminished resource availability, the implementation of Mitigation Measures 3.5-1 and 3.5-2 would not be sufficient to reduce the level of the Project-specific impact to a less-than-significant level. Accordingly, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts on special-status species over the span of the Draft 2045 CAP, would remain cumulatively considerable and significant and unavoidable.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-2.

Significance after Mitigation: Significant and Unavoidable. No additional feasible mitigation measures are available.

Criterion b)

Impact 3.5-8: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS. (*Significant Unavoidable Cumulative Impact*)

Riparian habitat and sensitive natural communities are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent and/or distribution. These communities are considered threatened enough to warrant some level of protection either through the CEQA review process or by federal, state, and local regulations, including the permitting jurisdiction of USACE, CDFW, and/or the RWQCB. Accordingly, when the Project's impacts are added, a significant cumulative impact of past, present, and reasonably foreseeable projects would occur with respect to these resources.

The Draft 2045 CAP would contribute a significant and unavoidable incremental contribution to this significant cumulative impact. No further mitigation is available to reduce the significance of this incremental contribution because riparian habitat and sensitive natural communities are limited in distribution; therefore, the ability to replace or mitigate the loss of these areas are equally limited in opportunity and new habitats, especially riparian, cannot readily be created. Accordingly, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts on sensitive natural communities over the span of the Draft 2045 CAP, would remain cumulatively considerable and significant and unavoidable.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-5.

Significance after Mitigation: Significant and Unavoidable. No additional feasible mitigation measures are available.

Criterion c)

Impact 3.5-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a substantial cumulative adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Past, present, and reasonably foreseeable future projects involving temporary or permanent impacts on jurisdictional waters and/or wetlands through filling, stockpiling, construction access, conversion to a storm drain, channelization, bank stabilization, road or utility line crossings, geotechnical investigations, or any other modifications that involve the discharge of fill and/or alteration of a jurisdictional resource, have contributed and are expected to continue to contribute to the loss of wetlands Countywide, including in the unincorporated areas. As of 2018, for example, OurCounty reported that Los Angeles County had lost 73 percent of its total estuarine area from 1850 to the present, and losses of 96 percent and 98 percent of vegetated and unvegetated estuarine areas, respectively (Los Angeles County Chief Sustainability Office 2018). At a smaller scale, past, present, and reasonably foreseeable future projects also have contributed to wetlands recovery and

such efforts are likely to continue. For example, CDFW approved a plan to restore the Ballona Wetlands—the largest coastal wetlands complex in Los Angeles County—in December 2019. Final federal review, permitting, and approvals for that project remain pending. Further, regulating agencies including USACE, CDFW, and the RWQCB have a “no net loss” policy applicable to their permit processing. Nonetheless, given the precipitous decline in wetlands in the County, when the Project’s impacts are added, a significant adverse cumulative impact would occur.

The Draft 2045 CAP would contribute a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.5-1 and 3.5-4. With the implementation of these mitigation measures and compliance with the regulatory agencies of USACE, CDFW, and RWQCB implementing their “no net loss” of biological resource habitat policies, the Project-specific, incremental contribution, taken into consideration with the cumulative projects’ impacts on special-status species over the span of the Draft 2045 CAP, would not be cumulatively considerable. A less-than-significant cumulative impact on wetlands would result.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-3.

Significance after Mitigation: Less than Significant.

Criterion d)

Impact 3.5-10: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative impact relating to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites. (*Significant and Unavoidable Cumulative Impact*)

Studies, such as South Coast Missing Linkages, document important landscape linkages to facilitate wildlife movement throughout Southern California; however, there are few assurances or mitigation requirements to protect such areas (South Coast Wildlands 2008). Los Angeles County supports multiple regional wildlife linkages including the San Gabriel–Castaic Connection, San Gabriel–San Bernardino Connection, Santa Monica–Sierra Madre Connection, Sierra Madre–Castaic Connection, Tehachapi Connection, Antelope Valley Connection, and Puente Hills–Chino Hills Connection. Linkages exist along principal watercourses, along ranges of mountains and hills, and along the San Andreas Fault. Consistency with General Plan policies would protect regional wildlife linkages and facilitate wildlife movement by avoiding the most biologically sensitive areas and by concentrating development in previously disturbed areas. Nonetheless, General Plan buildout is expected to cause adversely affect regional wildlife linkages and nursery sites. Thus, when the Project’s impacts are added, a significant adverse cumulative impact would occur related to wildlife movement and nursery sites.

The Draft 2045 CAP would contribute a significant unavoidable incremental contribution to this significant cumulative impact. Even with the implementation of Mitigation Measures 3.5-1 and 3.5-4, the Project-specific, incremental contribution, taken into consideration with the cumulative projects’ impacts on special-status species over the span of the Draft 2045 CAP, would be

cumulatively considerable. Additional mitigation opportunities for wildlife movement are limited or unavailable. A significant cumulative impact from interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites would result.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-4.

Significance after Mitigation: Significant and Unavoidable. No additional feasible mitigation measures are available.

Criterion e)

Impact 3.5-11: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to the cumulative conversion of oak woodlands or other unique native woodlands. (*Significant and Unavoidable Cumulative Impact*)

Cumulative projects could adversely affect oak woodlands or other unique native woodlands directly if they entail tree or woodland removal. Oak woodlands are protected Countywide, and oak trees can be found in every SEA in Los Angeles County. Ongoing threats to oak trees include nonnative pests (e.g., the invasive shot hole borer and gold spotted oak borer), development, drought, disease, and increased fire frequencies (County Planning 2022). The County's efforts to protect oak woodlands include enforcement of the Oak Tree Ordinance, which requires a permit to cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any oak tree regulated by the ordinance; and management of oak woodlands pursuant to the Oak Woodlands Conservation Management Plan and via the Oak Woodlands Conversation Management Plan Guide. Nonetheless, given the range of threats resulting in conversion of oak woodlands and other unique native woodlands that are outside the control of County regulations, when the Project's impacts are added, the cumulative impact of past, present, and reasonably foreseeable future projects would be significant.

Projects facilitated by Draft 2045 CAP measures and actions would contribute a less-than-significant incremental contribution to this significant cumulative impact following mitigation. However, this less-than-significant incremental contribution would be cumulatively considerable: When taken into consideration with the cumulative significant impacts over the span of the Draft 2045 CAP, the contribution of projects facilitated by Draft 2045 CAP measures and actions—even with implementation of the County's oak woodlands protection requirements—would be cumulatively considerable when added to the impacts of other natural factors beyond the County's control that contribute to the conversion of oak woodlands and other unique woodlands (e.g., wildfires, climate change, introduced plant diseases, insect pests). A cumulatively considerable and significant cumulative impact would result with compliance with the County General Plan policies and local ordinances protecting biological resources and implementation of Mitigation Measures 3.5-1 and 3.5-5.

Mitigation: Implement Mitigation Measures 3.5-1 and 3.5-5.

Significance after Mitigation: Significant and Unavoidable. No additional feasible mitigation measures are available.

3.6 Cultural Resources

This section identifies and evaluates issues related to cultural resources to determine whether the Project would result in a significant impact on historical, archaeological, or paleontological resources or human remains. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment. Discussion of the Project's significant impacts relating to tribal cultural resources is provided in Section 3.16, *Tribal Cultural Resources*.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. In addition to suggestions that the EIR evaluate the impacts of new and upgraded renewable energy infrastructure to cultural resources, comments recommend the assessment of impacts on cultural resources more generally (e.g., to inadvertently discovered archeological resources and Native American human remains). Scoping comments also recommend sources of relevant information.

3.6.1 Setting

3.6.1.1 Study Area

The study area for this analysis of impacts on cultural resources consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2. The unincorporated areas of Los Angeles County are generally located within two distinct geographies: Los Angeles Basin and the Mojave Desert. The San Gabriel Mountains, which generally form the boundary between the Los Angeles Basin to the north, and the Mojave Desert to the south, are considered part of the Los Angeles Basin.

3.6.1.2 Environmental Setting

Geologic Setting

As indicated by geologic mapping (Yerkes and Campbell 2005), the surficial geology within the study area is varied, with a majority of the deposits composed of Holocene-, Pleistocene-, Pliocene-, and Miocene-age sedimentary deposits. Additionally, there are occurrences of Cretaceous, Jurassic, and Triassic-age metamorphic and igneous rocks associated with the San Gabriel and Eastern Santa Monica mountains in the study area. For areas that are mapped as having Holocene-age deposits at the surface, there may be older, Pleistocene-age deposits at unknown depths within the subsurface (Yerkes and Campbell 2005).

Among the Pliocene- and Miocene-age deposits in the study area, geologic mapping indicates that deposits associated with the Los Angeles Basin (i.e., San Pedro, Inglewood, Puente, and Fernando formations, and the Topanga Group) are present at the surface, and assumingly, in the subsurface (Yerkes and Campbell 2005).

Prehistoric Setting

Los Angeles Basin

The presence of people in the vicinity of the Los Angeles Basin by at least 11,000 years Before Present (B.P.) is well documented. Some of the earliest and most notable cultural sites during the Paleocoastal Period (12,000–8,500 B.P.) are found in the Channel Islands and reflect a mobile, coastally oriented subsistence system. Gradually, people established more permanent settlements along the coast, but also along estuaries, lagoons, lakes, streams, and marshes. During the Millingstone Period (8,500–3,000 B.P.), the use of groundstone intensified as acorns and seeds were added to a broadening diet that included a wider range of fish, shellfish, small mammals, and birds. During the subsequent Intermediate Period (3,000–1,000 B.P.), increased sedentism in small villages and increasing population size is associated with intensified use of existing terrestrial and marine resources, a shift towards lower-ranked resources, increased labor specialization, and expanded trading networks. The Late Period (1,000 B.P.–A.D. 1542) is associated with the florescence of the Gabrielino, characterized by elaborate trade networks relying on shell-bead currency, investment in fishing technology, including plank canoes (Glassow et al. 2007; Cassidy et al. 2004; Wallace 1955; Byrd and Raab 2007; Erlandson 1994; Koerper et al. 2002).

Mojave Desert

During the Paleo-Indian Period (12,000–10,000 B.P.), human occupation in the Mojave Desert is characterized by evidence for small, mobile groups living in temporary camps in the vicinity of permanent water sources. The Lake Mojave Complex (10,000–8,000 B.P.) retained high mobility, but saw diversification of types to include Lake Mojave and Silver Lake projectile points, bifaces, steep-edged unifaces, crescents, and some ground stone implements. The Pinto Complex (8,000–5,000 B.P.) continued the pattern of subsistence diversification and utilization to include new ecological niches; a greater prevalence of flat millingsstones and manos indicate a more intensive use and processing of plant resources. Many archeological sites of the Gypsum Complex (4,000–1,800 B.P.) are small and surficial, reflecting a temporary nature. There is greater evidence for inter-tribal trade, as well as introduction of the mortar and pestle. The Rose Springs Complex (1,800–800 B.P.) is associated with renewed sedentism and population growth as evidenced by a proliferation of archaeological sites, particularly well-defined middens, and by greater contact with the coast and the Great Plains. Following periods of drought during the Rose Springs, wetter conditions returned between A.D. 1350 and 1600, associated with the Little Ice Age. By the Late Prehistoric Period (800 B.P. to European contact) an extensive network of established trade routes wound their way through the desert, routing goods to populations throughout the Mojave region (Sutton et al. 2007; Pacific Legacy 2007; Warren 1984; Price et al. 2008; Sutton 1988).

Ethnographic Setting

The study area is situated within land traditionally occupied by five Native American groups: Gabrielino (including the Tongva and Kizh), Tataviam, Serrano, Kitanemuk, and Ventureño Chumash. The following summary is not intended to provide a comprehensive account of these groups, but is instead a brief historical overview based on available information from resources cited below.

Gabrielino (or Tongva and Kizh)

The term “Gabrielino” is a general term that refers to those Native Americans who were sent by the Spanish to the Mission San Gabriel Arcángel (Bean and Smith 1978). Two indigenous terms are commonly used by tribal groups to refer to themselves and are preferred by descendant groups: Tongva and Kizh (Heizer 1968). Prior to European colonization, the Gabrielino occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina (Bean and Smith 1978). Their neighbors included the Chumash and Tataviam to the north, the Juañeno to the south, and the Serrano and Cahuilla to the east. The Gabrielino are reported to have been second only to the Chumash in terms of population size and regional influence (Bean and Smith 1978). The Gabrielino language was part of the Takic branch of the Uto-Aztecan language family.

The Gabrielino Indians were hunter-gatherers and lived in permanent communities located near the presence of a stable food supply. Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game was hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows (Bean and Smith 1978). Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino are estimated to have had a population numbering around 5,000 in the pre-contact period (Kroeber 1925). The Late Prehistoric period, spanning from approximately 1,500 years B.P. to the mission era, is the period associated with the florescence of the Gabrielino (Wallace 1955). Coming ashore near Malibu Lagoon or Mugu Lagoon in October of 1542, Juan Rodriguez Cabrillo was the first European to make contact with the Gabrielino Indians. Maps produced by early explorers indicate that at least 26 Gabrielino villages were within proximity to known Los Angeles River courses, while an additional 18 villages were reasonably close to the river (Gumprecht 2001).

Tataviam

Tataviam territory was concentrated primarily along the upper reaches of the Santa Clara River drainage between the San Fernando Valley to the south and Pastoria Creek in the Tehachapi Mountains to the north. Their territory also included east Piru Creek and the southern slopes of the Sawmill and Liebre Mountains, and extended into the southern end of the Antelope Valley (King and Blackburn 1978). The northern boundary was likely along upper Piru Creek south of Hungry Valley and Cañada de los Alamos (Johnson and Earle 1990). Tataviam territory was bounded by the Gabrielino to the south, the Serrano to the east, the Kitanemuk to the northeast, the Emigdiano Chumash to the north, and the Ventureño Chumash to the west.

There are few historical sources regarding the Tataviam. The word “Tataviam” most likely came from a Kitanemuk word that may be roughly translated as “people of the south-facing slope,” due to their settlement on south-facing mountain slopes (King and Blackburn 1978). The Chumash referred to them as “Alliklik” (Kroeber 1925). What the Tataviam called themselves is not known. The Tataviam spoke a language that was part of the Takic branch of the Uto-Aztecan language family (King and Blackburn 1978). Tataviam villages varied in size from larger centers with as many as 200 people, to smaller villages with only a few families (King and Blackburn 1978). At the time of Spanish contact, the Tataviam population is estimated to have been less than 1,000. Primary vegetable food sources included acorns, juniper berries, seeds, and yucca buds.

Small game such as antelope and deer supplemented these foods. Trade networks between inland groups such as the Tataviam, the coastal regions, and desert regions enabled the trade of exotic materials such as shell, asphaltum, and steatite.

Ventureño Chumash

Ventureño territory extended from the Pacific coast in the vicinity of Ventura in the west to the area between Sespe and Piru Creeks in the middle portion of the Santa Clara River drainage in the west, and from the headwaters of Sespe Creek in the north to the area around Malibu Creek in the south (Kroeber 1925: plate 48; Grant 1978a: 506). However, by the Mission period Ventureño territory extended just east of Piru Creek (King 1975:175; Glassow et al. 2007:206). The Ventureño Chumash were bounded by the Tataviam to the east, the Gabrielino-Tongva to the southeast, the Emigdiano Chumash to the north, and the Barbareño, Ynezeño, and Cuyama Chumash to the west.

The Chumash were hunter-gatherers and lived in permanent villages. The size of Chumash villages ranged considerably from the coastal areas to the inland areas with many villages on the coast having several hundred occupants (Grant 1978b: 510), whereas villages inland were significantly smaller, sometimes containing only a couple dozen inhabitants (Grant 1978c: 533). At the beginning of the Mission period, it is estimated that the overall Chumash population ranged from 8,000 to 10,000 (Kroeber 1925: 551), with a population estimate for the Ventureño ranging from 2,500 to 4,200 (Grant 1978b: 519). Chumash villages were most abundantly located along the coast and were often situated on high ground adjacent to a river or stream that flowed into the ocean or along the borders of sloughs or wetlands (Grant 1978b: 510). Ventureño villages often were located near permanent, reliable water sources and were most abundant along the Ventura River and Santa Clara River, and Calleguas Creek. Chumash subsistence included both terrestrial and maritime resources (Grant 1978b: 517). Chumash villages were composed of a patrilineal descent group and usually had at least one chief, known as the *wot* or *wocha*, whose position was inherited but was subject to village approval (Grant 1978b: 510).

Serrano

The Serrano occupied territories that ranged from low or moderately low desert to the mountain regions of the Transverse and Peninsular ranges bordered to the west roughly by the Cajon Pass in the San Bernardino Mountains, to the east by Twenty-Nine Palms, and to the south by Yucaipa Valley. The Serrano inhabited areas both north and south of the San Bernardino Mountains, and also encompassed the western end of the Mojave Desert (including Lovejoy Springs) in portions of Los Angeles County (Price et al. 2008). The Serrano were organized into clans, with the clan being the largest autonomous political entity. They lived in small villages where extended families lived in circular, dome-shaped structures made of willow frames covered with tule thatching. Each clan had one or more principal villages in addition to numerous smaller villages associated with the principal village (Price et al. 2008). Villages located at higher elevations were placed near canyons that received substantial precipitation or were adjacent to streams and springs. Villages situated at lower elevations were also located close to springs or in proximity to the termini of alluvial fans where the high-water table provided abundant mesquite and shallow wells could be dug.

The Serrano subsistence strategy relied upon hunting and gathering, and occasionally fishing. Villages divided into smaller, mobile gathering groups during certain seasons to gather seasonally

available foods. The division of labor was split between women gathering and men hunting and fishing (Bean and Smith 1978; Warren 1984). Mountain sheep, deer, rabbits, acorns, grass seeds, piñon nuts, bulbs, yucca roots, cacti fruit, berries, and mesquite were some of the more common resources utilized (Bean and Smith 1978; Warren 1984). Despite early European and Spanish contact in 1771, the Serrano remained relatively autonomous until the period between 1819 and 1834 when most of the western Serrano were removed and placed into missions (Bean and Smith 1978; Warren 1984).

Kitanemuk

The Kitanemuk were the northern neighbors of the Tataviam, and occupied a territory that extended from the Tehachapi Mountains (Tehachapis) into the western end of the Antelope Valley (covering a small portion of Los Angeles County on the northeast). While most of their recorded villages were located in the Tehachapis, their settlement pattern is poorly understood. Some scholars posit that the Antelope Valley's desert floor was used only on a seasonal basis, while others point to archaeological evidence of permanent occupation of the desert floor during the Late Prehistoric Period (Sutton 1980). While the Kitanemuk maintained friendly relations with their other neighbors such as the Chumash, historic evidence indicates that their relationship with the Tataviam was generally hostile (Blackburn and Bean 1978).

Like other Takic-speaking groups, such as the Serrano, Kitanemuk society had a patrilineal organization. Families grouped together into villages, which were headed by a team of "administrative elite" composed of a chief, messengers, and shamans. Kitanemuk subsistence was similar to the Tataviam. Historic data on the Kitanemuk is lacking, and the only historical mention of the group comes from explorer Francisco Garcés in 1776 (as cited in Blackburn and Bean 1978). The only major source of ethnographic data comes from J. P. Harrington's 1917 notes on interviews conducted with the few surviving Kitanemuk at Tejon Ranch (as cited in Blackburn and Bean 1978).

Historic Setting

Although Spanish explorers made brief visits to the region in 1542 and 1602, sustained European exploration of southern California began in 1769 (Johnson and Earle 1990). In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples. In 1771, Father Junípero Serra founded Mission San Gabriel and Father Fermín Francisco de Lasuén founded the Mission San Fernando Rey de España by 1797 (California Missions 2019, 2021). Disease and hard labor took a toll on the native population in California; by 1900, the Native Californian population had declined by as much as 90 percent (Cook 1978). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

The Mexican Period began when Mexico won its independence from Spain in 1821. Mexico continued to promote settlement of California with the issuance of land grants. In 1833, Mexico began the process of secularizing the missions, reclaiming the majority of mission lands and redistributing them as land grants. According to the terms of the Secularization Law of 1833 and Regulations of 1834, at least a portion of the lands would be returned to the Native populations, but this did not always occur (Milliken et al. 2009).

In 1846, the Mexican-American War broke out. Mexican forces were eventually defeated in 1847 and Mexico ceded California to the United States as part of the Treaty of Guadalupe Hidalgo in 1848. California officially became one of the United States in 1850. While the treaty recognized right of Mexican citizens to retain ownership of land granted to them by Spanish or Mexican authorities, the claimant was required to prove their right to the land before a patent was given. The process was lengthy, and generally resulted in the claimant losing at least a portion of their land to attorney's fees and other costs associated with proving ownership (Starr 2007).

The first transcontinental railroad was completed in 1869, connecting San Francisco with the eastern United States. Newcomers poured into northern California. Southern California experienced a trickle-down effect, as many of these newcomers made their way south. The Southern Pacific Railroad extended this line from San Francisco to Los Angeles in 1876. The second transcontinental line, the Santa Fe, was completed in 1886 and caused a fare war, driving fares to an unprecedented low. Settlers flooded into the region and the demand for real estate skyrocketed. As real estate prices soared, land that had been farmed for decades outlived its agricultural value and was sold to become residential communities. The subdivision of the large ranchos took place during this time (Meyer 1981; McWilliams 1946).

Archaeological Resources Setting

Los Angeles Basin

The geology of the portions of the Los Angeles Basin underlying the study area is varied. Large swaths, including the San Gabriel Mountains, Santa Monica Mountains, Channel Islands, and Puente and Repetto Hills, are underlain by various sedimentary, volcanic, and metamorphic bedrock, while other areas are underlain by Pleistocene to Holocene-aged alluvium. Areas underlain by bedrock would be expected to have a lower sensitivity to contain buried, in situ archaeological sites, as these areas have generally not been subject to substantial deposition within the time frame of human occupation of Southern California, as well as being subject to long-term erosion. Conversely, alluvial fans, particularly those dating to the Holocene have a higher sensitivity to contain buried archaeological sites. However, the high degree of urbanization within the Los Angeles basin, which has resulted in widespread grading and filling, is likely to have diminished the archaeological potential of many areas and would need to be assessed on a site-by-site basis.

Mojave Desert

Portions of the Mojave Desert encompassing the study area are underlain primarily by alluvial fan deposits (for example, see Dibblee and Minch 2008). This material consists of gravel, sand, and silt eroded from the San Gabriel Mountains and transported into the Antelope Valley, and then reworked by streams. While areas of dissected, older, Pleistocene-aged fans exist, the majority of surficial deposits date to the Holocene period. Holocene-aged alluvial fan and floodplain deposits have a higher sensitivity to contain buried, in situ archaeological sites, as these deposits both formed within the timeframe of human occupation of the region, and were laid down in a manner conducive to burying and preserving archaeological sites. In contrast, the older alluvial fans appear to have a lower sensitivity to contain deeply buried, in situ archaeological sites, based on their age and tendency towards erosion. Additionally, a portion of the northeast corner of the study area is underlain by Jurassic-aged granitic rock; while this geological unit could retain archaeological sites at ground surface, it is considered to have a low sensitivity for archaeological sites at depth.

Paleontological Setting

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones; e.g., mammals, birds, fish), invertebrates (animals without backbones; e.g., starfish, clams, coral), and microscopic plants and animals (microfossils), and can include mineralized body parts, body impressions, or footprints and burrows. They are valuable, nonrenewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived.

Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its “Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources,” the Society of Vertebrate Paleontology (SVP) (2010) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential. For geologic units with high potential, full-time monitoring is generally required during all ground disturbance. For geologic units with low to high potential, monitoring is generally required at certain depths. For geologic units with low potential or no potential, monitoring is not generally required. For geologic units with undetermined potential, monitoring is generally required at the initiation of excavation until potential is further assessed.

In general, Holocene-age alluvial deposits are considered to have a low potential to contain significant paleontological resources, based on the recent age of the deposits (SVP 2010); late Holocene-age deposits (i.e., younger than 5,000 radiocarbon years) have a particularly low potential. Deposits that date to the middle Holocene (i.e., older than 5,000 radiocarbon years) have a potential that increases as the depth into the deposits increases. In general, Pleistocene-age sedimentary deposits are considered to have a high potential to contain significant paleontological resources, as is evident by the numerous fossil discoveries throughout California (UCMP 2021; Sub Terra Consulting 2017)—as well as within Los Angeles County (UCMP 2021a). The exact transition from Holocene- to Pleistocene-age deposits varies depending on local conditions. Additionally, due to the previous fossil discoveries from within the Pliocene- and Miocene-age deposits (UCMP 2021b) from the County, the formations from this age range would be considered to have a high potential to contain significant paleontological resources as well. Lastly, numerous outcrops of Cretaceous, Jurassic, and Triassic metamorphic and igneous formations underlie and extrude in the study area. Under certain rare conditions, metamorphic rock may preserve fossils (SVP 2010). Igneous formations are considered to have no potential to contain significant paleontological resources based on the environments in which these rock types were produced.

3.6.1.3 Identified Cultural Resources

Historical Resources

Review of the Cultural Resources Technical Report prepared for the General Plan EIR indicates that a comprehensive survey to “identify, record, and designate historical resources” in unincorporated areas of the County has not been conducted (Sapphos Environmental, Inc. 2014). See Figure 5.5-1, *Historic Resources Sites Policy Map*, in Chapter 5 of the Draft EIR for the County’s

General Plan Update. Moreover, the technical report mentions that approximately 37 resources listed in the National Register of Historic Places (National Register), National Historical Landmarks, California Historical Landmarks, and California Points of Historical Interest were located in unincorporated areas of the County as of 2014. These resources are identified in **Tables 3.6-1** through **3.6-4**. In addition, the County Historical Landmarks are identified in **Table 3.6-5**.

**TABLE 3.6-1
 PROPERTIES IN THE NATIONAL REGISTER OF HISTORIC PLACES**

| Name | Location | Year Listed |
|---|--|--------------------|
| Antelope Valley Indian Museum | 15701 East Avenue, Lancaster | 1987 |
| Christmas Tree Lane | Santa Rosa Avenue between Woodbury Avenue and Altadena Drive, Altadena | 1990 |
| Crank House | 2186 Crary Street, Altadena | 1997 |
| Dominguez Ranch Adobe | 18127 S. Alameda Street, Compton | 1976 |
| Farnsworth, Gen. Charles S., County Park | 568 E. Mt. Curve Avenue, Altadena | 1997 |
| Gano, Peter, House | 718 Crescent Avenue, Avalon | 1983 |
| Grey, Zane, Estate | 396 E. Mariposa Street, Altadena | 2002 |
| Keyes Bungalow | 1337 E. Boston Street, Altadena | 1978 |
| McNally, Andrew, House | 654 E. Mariposa Street, Altadena | 2007 |
| Mount Lowe Railway | North of Altadena Angeles National Forest, Altadena | 1993 |
| Pacific Electric Railway Company Substation No. 8 | 2245 North Lake Avenue, Altadena | 1977 |
| Pitzer House | 4353 North Towne, Claremont | 1986 |
| Ridge Route, Old | Along Old Ridge Route (roughly bounded by Sandberg and Canton Canyon), Castaic | 1997 |
| Scripps Hall | 209 East Mariposa Street, Altadena | 1999 |
| Tuna Club of Avalon | 100 St. Catherine Way, Catalina Island, Avalon | 1991 |
| *Vasquez Rocks | Agua Dulce Road, Agua Dulce | 1972 |
| Well No. 4, Pico Canyon Oil Field | 9.5 miles North of San Fernando, West of US 99, San Fernando | 1966 |
| Woodbury-Story House | 2606 North Madison Avenue, Altadena | 1993 |
| Wrigley, William, Jr., Summer Cottage | 76 Wrigley Road, Avalon | 1985 |

NOTES:

* Archaeological Site; address restricted

SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-2
 NATIONAL HISTORIC LANDMARKS**

| Name | Location | Year Listed |
|-----------------------------------|--------------------|--------------------|
| Well No. 4, Pico Canyon Oil Field | Los Angeles County | 1966 |

SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-3
CALIFORNIA HISTORIC LANDMARKS**

| Name | Location | CHL No. | Listed in National Register | Listed in California Register |
|--|--|----------------|------------------------------------|--------------------------------------|
| Dominguez Ranchhouse | 18127 South Alameda, Compton | 152 | | |
| Oak of the Golden Dream | Placerita Canyon State and County Park, Placerita Canyon Road, 4.6 miles Northeast of Newhall, Los Angeles | 168 | | |
| Pomona Water Powerplant | Camp Baldy Road (P.M. 2.0), San Antonio Canyon, 8.1 miles North of State Highway 166, Claremont | 514 | | |
| Well, CSO 4 (Pico 4) | On West Pico Canyon Road, 3.3 miles West of I-5, Newhall | 516 | | |
| Mentryville | 27201 West Pico Canyon Road, 2.8 miles West of I-5, Newhall | 516-2 | | |
| Rancho San Francisco | Southwest corner of "the Old Road" and Henry Mayo Drive, 0.2 miles South of I-5 and State Highway 126 Interchange, Valencia | 556 | | |
| Lang | Soledad Canyon Lang Station Road (0.4 miles South of State Highway 14 (P.M. 35.6), Shadow Pines Boulevard, 4.7 miles East of Canyon Country | 590 | | |
| Old Short Cut | Angeles National Forest, Chilao Visitor's Center Angeles Crest Highway (State Hwy 2), 27 miles East of La Canada | 632 | | |
| The Angeles National Forest | San Gabriel Mountains Clear Creek Vista Point, State Highway 2 (P.M. 32.8), 8.3 miles North of I-210, La Canada | 717 | | |
| St. Francis Dam Disaster Site | San Francisquito Power Plant No. 2, 32300 North San Francisquito Canyon Road, 9.2 miles North of Saugus | 919 | | Yes |
| Site of Llano del Rio Cooperative Colony | On State Highway 138 (P.M. 64.1), Llano | 933 | | Yes |
| Point Dume | Point Dume State Beach (corner of Cliffside Drive and Birdview Avenue), Malibu | 965 | | Yes |
| Christmas Tree Lane | Santa Rose Avenue (both sides of street from Woodbury Avenue to Altadena Drive), Altadena | 990 | Yes | Yes |
| Tuna Club of Avalon | 100 Street Catherine Way, Avalon | 997 | Yes | Yes |
| Beale's Cut Stagecoach Pass | Intersection of Sierra Highway and Clampitt Road, Santa Clarita | 1006 | | Yes |

NOTES: California Register = California Register of Historical Resources; CHL = California Historic Landmark; National Register = National Register of Historic Places

SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-4
 CALIFORNIA POINTS OF HISTORICAL INTEREST**

| Name | Location | CPHI No. |
|-------------------------------------|--|-----------------|
| Altadena Town and Country Club | 2290 Country Club Drive, Altadena | 52 |
| Antelope Valley Indian Museum | 15701 East Avenue, Lancaster | 33 |
| Bassett Elementary School | 546 N. Vineland Avenue, Bassett | 34 |
| Pacific Electric Railway, Firestone | E. Firestone Boulevard, (vicinity of) Florence | 40 |
| Santa Susana Stage Road | San Fernando | 10 |
| Soledad-Acton Schoolhouse | 32248 N. Crown Valley Road, Acton | 14 |
| Sylvia Park Country Club Clubhouse | 20421 Callon Drive, Topanga | 57 |
| Topanga Christian Fellowship Church | 269 Old Topanga Canyon Road, Topanga | 65 |
| Woodbury/Story House | 2606 N. Madison Avenue, Altadena | 12 |

NOTE: CPHI = California Point of Historical Interest
 SOURCE: Sapphos Environmental, Inc. 2014

**TABLE 3.6-5
 COUNTY OF LOS ANGELES HISTORICAL LANDMARKS**

| Name | Location | Year Listed |
|---|---------------------------------------|--------------------|
| Hollywood Bowl Performing Arts Center Complex | 2301 Highland Avenue, Los Angeles | 2000 |
| Dumakes House | 4918 Angeles Vista Blvd., View Park | 2016 |
| McLeod House | 717 E. Baseline Rd, West Claremont | 2017 |
| Chester Washington Golf Course | 1818 Charlie Sifford Dr., Los Angeles | 2020 |
| Anderson House | 19974 Sischo Dr., Topanga | 2020 |
| Packard House | 1496 N. Dominion Ave., Pasadena | 2020 |
| Alpine Village | 833 W. Torrance Blvd., Torrance | 2020 |
| Holmes House | 1022 Parkman St., Altadena | 2021 |

SOURCE: County of Los Angeles 2022

Archaeological Resources

According to Chapter 5 of the County’s General Plan Update EIR, over 3,979 archaeological sites have been recorded in Los Angeles County. Due to the sensitive nature of archaeological sites and as required under state law, locations are not published herein. Archaeological materials have been found throughout the County, in both urbanized and undeveloped locations.

Paleontological Resources

Records available through the University of California Museum of Paleontology (UCMP) online fossil localities database indicate numerous fossil localities within Los Angeles County. Among the available records, there are 77 vertebrate, 1,767 invertebrate, 108 plant, and 271 microfossil localities, several from the deposits that occur in the study area (UCMP 2021a). Additionally, Chapter 5 of the General Plan Update EIR indicates that some significant fossil localities have been identified in Los Angeles County. These localities are identified in **Table 3.6-6**.

**TABLE 3.6-6
 SIGNIFICANT GENERAL FOSSIL LOCALITIES IN LOS ANGELES COUNTY**

| Location | Fossil Type | Formations |
|--|--|-------------------|
| La Brea Tar Pits | N/A | N/A |
| Palos Verdes Peninsula | Mastadon, mammoth, horse, camel, sloth | Palos Verdes Sand |
| Palos Verdes Peninsula | Grey whale | San Pedro |
| Palos Verdes Peninsula | Fish, birds, sea lion, plants, baleen whale, horse, sloth, sea otter, mammoth, mastodon, bison, camel, tapir | Monterey Shale |
| Palos Verdes Peninsula | Dolphin | Monterey Shale |
| Santa Monica Mountains (Topanga Canyon) | Cypraeid gastropod | Topanga |
| Santa Monica Mountains (Old Topanga Canyon Road, Piuma Road) | Multiple | Topanga |
| Mint Canyon | Oldest hawk in California | Tick Canyon |
| Mint Canyon | Horse, elephant, camel | Mint Canyon |
| Puente Hills (Hacienda Heights) | Fish | Puente |
| Puente Hills (Diamond Bar) | Fish and leaves | Puente |

NOTE: N/A = not applicable
 SOURCE: Los Angeles County General Plan Update 2014

Unique Geologic Features

CEQA does not provide a definition of “unique geologic feature,” nor does it provide guidance on what should be considered a unique geologic feature. The following is adapted from the *County of San Diego Guidelines for Determining Significance: Unique Geology* (2007). The County does not maintain a list of unique geologic features, and documenting unique geologic features in the entire County would require extensive research, which is not required for this EIR’s programmatic analysis.

A geologic feature is considered unique if it meets one or more of the following criteria:

- Best example of its kind locally or regionally.
- Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally.
- Provides a key piece of geologic information important in geology or geologic history.
- Is a “type locality” of a geologic feature.
- Is a geologic formation that is exclusive locally or regionally.
- Contains a mineral that is not known to occur elsewhere in the region.
- Is used repeatedly as a teaching tool.

3.6.1.4 Regulatory Setting

Federal Laws, Regulations, and Policies

Antiquities Act of 1906

In 1906, the Antiquities Act (United States Code [U.S.C.] Title 54, Sections 320301–320303 [54 U.S.C. 320301–320303]) was enacted to help protect any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Federal Government. This law further authorizes the President of the United States to declare national monuments by public proclamation of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands. The Antiquities Act was used to proclaim several national monuments based upon significant paleontological resources. Paleontological resources located within designated national monuments are protected under the Antiquities Act.

National Historic Preservation Act of 1966

The principal federal law addressing historic properties is the National Historic Preservation Act (NHPA), as amended (54 U.S.C. 300101 et seq.), and its implementing regulations (Code of Federal Regulations (CFR) Title 36, Part 800 [36 CFR 800]). Section 106 of the NHPA requires a federal agency with jurisdiction over a proposed federal action (referred to as an *undertaking*) to take into account the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation an opportunity to comment on the undertaking.

The term *historic properties* refers to “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register” (36 CFR 800.16[l][1]). The implementing regulations (36 CFR 800) describe the process for identifying and evaluating historic properties, for assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies take into account effects on historic properties from an undertaking prior to approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer, federally recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects on such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement (36 CFR 800.1[a]). Consultation with Indian tribes regarding issues related to Section 106 and other authorities (such as the National Environmental Policy Act [NEPA] and Executive Order No. 13007) must recognize the government-to-government relationship between the federal government and Indian tribes, as set forth in Executive Order 13175, *Federal Register* Volume 65, page 87249 (65 FR 87249) (November 9, 2000), and the Presidential Memorandum of November 5, 2009.

Under the NHPA, the Secretary of the Interior is responsible for establishing professional standards and for providing guidance on the preservation of the nation’s historic properties. See the following discussion of these standards.

National Register of Historic Places

The National Register was established by the NHPA of 1966, as “an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment” (36 CFR 60.2) (U.S. Department of the Interior 2002). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the National Register is considered “historic property” under Section 106 of the NHPA.

To be eligible for listing in the National Register, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history.
- B. Are associated with the lives of persons significant in our past.
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as the ability of a property to convey its significance. The National Register recognizes seven qualities that, in various combinations, define integrity. These qualities include location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Ordinarily, religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the National Register unless they meet one of the Criteria Considerations (A–G), in addition to meeting at least one of the four significance criteria and possessing integrity.

Archaeological and Historic Preservation Act of 1974

The Archaeological and Historic Preservation Act of 1974 is also known as the Archaeological Recovery Act and the Moss-Bennett Bill. This law provides for the preservation of significant scientific, prehistoric, historic, and archaeological materials and data that might be lost or destroyed as a result of: (1) flooding, the building of access roads, the erection of workmen’s

communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation holding a license issued by any such agency; or (2) any alteration of the terrain caused as a result of any federal construction project or federally licensed activity or program. The Act also provides for the preservation of sites or objects of national significance by focusing attention on significant resources and data, but does not require that they be shown to be of “national” significance.

The Archaeological and Historic Preservation Act made clear that all federal agencies were authorized to fund archaeological investigations, reports, and other kinds of activities to mitigate the impacts of their projects on important archaeological sites. The Act provides that up to 1 percent of congressionally authorized funds for a project may be spent from appropriated project funds to recover, preserve, and protect archaeological and historical data.

The Act is also one of the statutory authorities for the curation and care of federal archaeological collections and associated records (36 CFR 79).

Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa–470mm) was enacted to “secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.” Under this Act, *archaeological resources* are defined as material remains of past human life or activities that are of archaeological interest and are over 100 years old. The primary focus of the Archaeological Resources Protection Act is to protect archaeological resources on public and Indian lands, and to prevent looting and destruction of archaeological resources. The statute provides for stiff civil and criminal penalties, including fines up to \$100,000 and/or 5 years in prison for second-time offenders. The Act also governs archaeological excavation and disposition of collections from sites on public and Indian lands, and requires researchers to obtain a permit prior to excavating or removing any archaeological materials on federal lands. The Archaeological Resources Protection Act further requires that the nature and location of archaeological resources be kept confidential unless providing the information would further the purposes of the statute and not create a risk of harm to such resources.

Native American Graves Protection and Repatriation Act of 1990

Requirements for responding to discoveries of Native American human remains and associated funerary objects on federal land are addressed under the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (25 U.S.C. 3001–3013) and its implementing regulations (43 CFR 10). If human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered on federal or tribal lands, the federal agency must determine and consult with the lineal descendants and culturally affiliated Indian tribes, and carry out appropriate treatment and disposition of the discovered remains, including transfer of custody. An *Indian tribe* is defined as any tribe, band, nation, or other organized group or community of Indians that is recognized as eligible for the special programs and services provided by the U.S. to Indians because of their

status as Indians. NAGPRA does not require federal agencies to consult with non-federally recognized tribes. However, there are some cases in which non-federally recognized tribes may be appropriate claimants for cultural items. Federal agencies that wish to return Native American human remains and cultural items to non-federally recognized tribes may do so after review and approval by the NAGPRA Review Committee.

NAGPRA also requires permitting of the intentional removal from, or excavation of, Native American cultural items from federal or tribal lands for purposes of discovery, study, or removal; establishes criminal penalties for trafficking in human remains or cultural objects; and requires agencies and museums that receive federal funding to inventory those items in their possession, identify the descendants of and repatriate those items.

Paleontological Resources Preservation Act of 2009

The primary legislation pertaining to fossils located on federal lands is the Paleontological Resources Preservation Act of 2009 (PRPA) (16 U.S.C. Section 470aaa 1–11), which was enacted on March 30, 2009, within the Omnibus Public Land Management Act of 2009. PRPA requires the U.S. Department of Agriculture and the U.S. Department of the Interior to manage and protect paleontological resources on federal land using scientific principles and expertise. PRPA, which applies only to federal land, provides specific mandates for administering paleontological resource research and collecting permits and the curation of fossil specimens in museum collections. PRPA also includes provisions for both criminal and civil penalties associated with paleontological resource crimes on federal lands. As directed by PRPA, federal agencies are in the process of developing implementing regulations.

State Laws, Regulations, and Policies

California Environmental Quality Act

CEQA (Public Resources Code Section 21000 et seq.) is the principal statute governing environmental review of projects occurring in the state. CEQA requires lead agencies to determine whether a proposed project would have a significant impact on the environment, including significant impacts on historical or unique archaeological resources. Under CEQA, a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant impact on the environment (Public Resources Code Section 21084.1).

The CEQA Guidelines (California Code of Regulations Title 14, Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not

preclude the lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Public Resources Code Section 21084.1 and Section 15064.5 of the CEQA Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Public Resources Code Section 21083, as a “unique” archaeological resource.

A significant impact would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5(a). *Substantial adverse change* is defined as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired” (CEQA Guidelines Section 15064.5[b][1]). According to CEQA Guidelines Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

- A. Convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register; or
- B. Account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the impacts of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

In general, a project that complies with the *Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Grimmer 2017) is considered to have mitigated its impacts on historical resources to a less-than-significant level (CEQA Guidelines Section 15064.5[b][3]).

Secretary of the Interior’s Standards

The Secretary of the Interior’s Standards (36 CFR 68) were originally designed for use by the National Park Service and intended for application in a federal context. The stated intent of the Standards is to “set forth standards for the treatment of historic properties containing standards for preservation, rehabilitation, restoration, and reconstruction” (36 CFR 68.1). One set of standards—preservation, rehabilitation, restoration, or reconstruction—will apply to a property undergoing treatment, depending upon the property’s significance, existing physical condition, the extent of documentation available and interpretive goals, when applicable, and are to be applied in a reasonable manner, taking into consideration economic and technical feasibility (36 CFR 68.3). The Standards for Rehabilitation (as defined under 36 CFR 68.3[b]) are most applicable to projects where compatibility with historic building alterations or alterations to a building’s environment is being evaluated and can pertain to historic buildings of all materials,

construction types, sizes, and occupancy and encompass the exterior and the interior, related landscape features and the building's site and environment as well as attached, adjacent, or related new construction.

The Secretary of the Interior's Standards were subsequently incorporated into Public Resources Code Section 15164.5(b) as a gauge against which lead agencies complying with CEQA could measure project impacts on historical resources. As stated under the prior CEQA subsection, generally a project that complies with the Secretary of the Interior's Standards is considered to have mitigated its impacts on historical resources to a less-than-significant level (CEQA Guidelines Section 15064.5(b)(3); see also *League for Protection of Oakland's Architectural and Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896). Although not prescriptive and as suggested by the term "generally" as used in the Public Resources Code, the appropriate application of the Secretary of the Interior's Standards, or a subset thereof, requires careful consideration by a lead agency of the specific significance, characteristics, and condition of the historical resource for which impacts are being evaluated.

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (Public Resources Code Section 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (Public Resources Code Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically such as the following:

- California properties listed on the National Register and those formally determined eligible for the National Register.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the Office of Historic Preservation and have been recommended to the State Historical Commission for inclusion on the California Register.

Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires that in the event human remains are discovered, the County Coroner is to be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the County Coroner is required to contact the Native American Heritage Commission (NAHC) within 24 hours to relinquish jurisdiction.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the landowner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

California Public Resources Code Sections 5097.98, 5097.5, and 30244

Public Resources Code Section 5097.98, as amended, provides procedures in the event human remains of Native American origin are discovered during project implementation. Public Resources Code Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. Public Resources Code Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. The MLD has 48 hours from the time of being granted access to the site by the landowner to inspect the discovery and provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

Other state requirements for archaeological and paleontological resource management are included in Public Resources Code Sections 5097.5 and 30244. Section 5097.5 states that “a person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express

permission of the public agency having jurisdiction over the lands.” Section 5097.5 also states that “a violation of this section is a misdemeanor, punishable by a fine not exceeding ten thousand dollars (\$10,000), or by imprisonment in a county jail not to exceed one year, or by both that fine and imprisonment.” This section defines *public lands* as “lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.” Section 6254.10 specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the NAHC, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency.”

Local Laws, Regulations, and Policies

Los Angeles County Historic Preservation Ordinance

The County Board of Supervisors adopted the County’s Historic Preservation Ordinance (HPO) on September 1, 2015 (County Historic Preservation Ordinance, Ord. 2015-0033 Section 3, 2015). The HPO establishes criteria for designating landmarks and historic districts and provides protective measures for designated and eligible historic resources. The HPO applies to all privately owned property within the unincorporated territory of the County and all publicly owned landmarks, except properties that were not listed prior to the issuance of a demolition permit or properties affiliated with religious organizations. The HPO defines a *landmark* as “any property, including any structure, site, place, object, tree, landscape, or natural feature, that is designated as a landmark by the Board of Supervisors.” The HPO defines a *historic district* as “A contiguous or noncontiguous geographic area containing one or more contributing properties which has been designated as an historic district by the Board of Supervisors.” Landmarks and historic districts may be designated if it is at least 50 years of age and meets at least one of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, state, county, or community in which it is located.
2. It is associated with the lives of persons who are significant in the history of the nation, state, county, or community in which it is located.
3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, state, county, or community in which it is located; or possesses artistic values of significance to the nation, state, county, or community in which it is located.
4. It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, state, county, or community in which it is located.

5. It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources.
6. If it is a tree, it is one of the largest or oldest trees of the species located in the county.
7. If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with an historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.

Los Angeles County General Plan (2035)

The Los Angeles County General Plan (2035) has the following goals and policies for the preservation of historic (built environment/historic architectural), cultural (archaeological), and paleontological resources.

Goal C/NR 14: Protected historic, cultural, and paleontological resources.

Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.

Policy C/NR 14.2: Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.

Policy C/NR 14.3: Support the preservation and rehabilitation of historic buildings.

Policy C/NR 14.4: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).

Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.

Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

3.6.2 Impact Analysis

3.6.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist. The Project would result in a significant impact on cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;
- b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- d) Disturb any human remains, including those interred outside of dedicated cemeteries.

3.6.2.2 Methodology

Impacts on historical resources, unique archaeological resources, and human remains that may result from the Draft 2045 CAP are evaluated at a programmatic level based on broad patterns of prehistoric and historic habitation of unincorporated areas of the County, geoarchaeological review, and a review of the Cultural Resources Technical Report prepared for the County's General Plan EIR (Sapphos Environmental, Inc. 2014). Similarly, impacts on unique paleontological resources or sites or unique geologic features are evaluated at a programmatic level using the same information. Projects facilitated by Draft 2045 CAP measures and actions would require their own environmental review that would include a project-specific cultural resources records search through the California Historical Resources Information System, a paleontological records check with the Natural History Museum of Los Angeles County, and cultural and paleontological pedestrian surveys. As such, records searches and surveys are not needed at this time.

3.6.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics, because the location and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects, and associated energy storage and distribution facilities, are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of cultural resources–related impacts. These and other

relevant measures and actions include the renewable energy and related infrastructure projects that would be facilitated by Draft 2045 CAP measures and actions toward the following categories of strategies: (1) Decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) The electrification of vehicles (e.g., Measure T6, Increase Zero-Emission Vehicle Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) The electrification of buildings (Strategy 5, Decarbonize Buildings).

Renewable energy and related infrastructure projects would also be facilitated by Draft 2045 CAP measures and actions that could facilitate development of more rural or open lands in areas of the unincorporated County where comparatively minimal ground disturbance has occurred, and that could facilitate retrofit of historic structures. Such projects are particularly relevant to the analysis of impacts on cultural resources because related development could affect the following: historic resources; subsurface resources such as unique archaeological resources; unique paleontological resources, sites, or unique geologic features; or human remains, including human remains interred outside of dedicated cemeteries. Specific impacts of the Draft 2045 CAP related to cultural resources, including projects facilitated by Draft 2045 CAP measures and actions, are discussed below. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies. Specific cultural resources-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

The timeframe during which the implementation of these actions and measures would affect historic, archeological, paleontological, or human remains currently present in both known and unknown locations in unincorporated areas of the County, would depend on the specific implementation timing, (as shown in Table 2-11 in Chapter 2, *Project Description*), and whether their implementation actually impacts one or more of these resources. The impact would occur immediately and, once it occurs, could be long-term. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such

projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

Impact 3.6-1: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. (*Less than Significant with Mitigation Incorporated*)

Historical resources include built resources (buildings, structures, objects) and archaeological resources that meet the criteria outlined in CEQA Guidelines Section 15064.5(a). The Draft 2045 CAP encompasses the vast unincorporated areas of the County, including areas of the Los Angeles Basin and the Mojave Desert. Known historical resources in the unincorporated areas include 37 resources either listed in the National Register or designated as National Historical Landmarks, California Historical Landmarks, or California Points of Historical Interest (Sapphos Environmental, Inc. 2014). There are also numerous known prehistoric and historic-period archaeological resources throughout these areas and the geoarchaeological review indicates that there is a potential for unknown resources to be discovered. For these reasons, it is likely that additional resources will be identified as future projects implementing Draft 2045 CAP measures and actions take place and as additional historical resource studies are conducted.

The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under 2035 General Plan land use assumptions. Projects facilitated by Draft 2045 CAP measures and actions could include utility-scale energy projects (e.g., solar, battery storage, substation, transmission infrastructure) and other projects that would involve structural improvements and/or ground disturbing activities that could, depending on their location, result in direct or indirect adverse changes to the significance of historical resources. For example, such changes could result from increased residential density/increased mixed use (Measures T1 and T2); bicycle and pedestrian infrastructure (Measures T3 and T4); construction of electric vehicle (EV) charging infrastructure (Measure T6); construction of new solar infrastructure (Measures ES3 and ES4); retrofitting existing building stock to reduce overall Countywide energy use (Measure E4); new organics waste collection and processing facilities, including anaerobic digestion (Actions W2.4 and W2.5); and tree planting at new development, County facilities, public parks, and along rights-of-way in both urbanized and rural areas (Measure A3).

Future projects facilitated by Draft 2045 CAP measures and actions would be required to comply with applicable federal, state, and local regulations that protect historical resources and to undergo the County's discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA. Such projects nonetheless could result in significant impacts on previously recorded and as-yet-unidentified

archaeological and/or historic architectural resources qualifying as historical resources under CEQA, and this impact would be significant.

Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce impacts to a less-than-significant level. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.6-1: Historic Resources Assessment. Prior to demolition or alteration of buildings and/or structures or the construction of aboveground infrastructure with potentially significant impacts on historic architectural resources, the project proponent shall retain an architectural historian meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738–44739) (Qualified Architectural Historian) to conduct a historic resources assessment of affected properties. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a review of other pertinent archives and sources; a pedestrian field survey; recordation of all identified historic architectural resources on California Department of Parks and Recreation (DPR) 523 forms; evaluation of resources which may be eligible for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment for each future project facilitated by 2045 CAP measures and actions. If a historic architectural resource is found eligible by the Qualified Architectural Historian, then the Qualified Architectural Historian shall coordinate with the project proponent and the County to ensure the project is constructed in conformance with the Secretary of the Interior’s Standards. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to historic resources assessments and Secretary of the Interior’s Standards plan reviews).

Mitigation Measure 3.6-2: Archaeological Resources Assessment. Prior to conducting construction activities that would involve ground disturbance, the project proponent shall retain an archaeologist meeting the minimum PQS set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738–44739) (Qualified Archaeologist) to conduct an archaeological resources assessment. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a Sacred Lands File search at the California Native American Heritage Commission (NAHC); geoarchaeological review including a focused assessment of land use history and any available geotechnical data to assess the potential for subsurface archaeological resources; a pedestrian field survey in instances where ground surface is exposed; recordation of all identified archaeological resources on DPR 523 forms; evaluation of resources affected by the project for eligibility for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment. Resources that do not qualify as historical resources shall be considered by the Qualified Archaeologist for qualification as unique archaeological resources as defined in Public Resources Code Section 21083.2(g). The technical report also shall provide recommendations as to whether additional studies are warranted to further identify or evaluate archaeological resources (i.e., Extended Phase I boundary delineation, Phase II testing and evaluation) and if

archaeological monitoring and Native American monitoring of ground disturbing activities is warranted (e.g., in areas where there is a higher potential to encounter buried resources). Prior to the initiation of field work for any Extended Phase I or Phase II investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation's objectives, goals, and methodology. When developing a work plan for Native American resources, the County shall consult with local Native American tribes. If archaeological/Native American monitoring is warranted, the Qualified Archaeologist shall determine the locations and duration of monitoring and reporting requirements. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to archaeological resources assessments, Extended Phase I and Phase II reports, and monitoring reports).

Mitigation Measure 3.6-3: Construction Worker Cultural Resources Sensitivity Training. For projects with ground-disturbing activities that may encounter potentially significant archaeological resources, the Qualified Archaeologist shall implement a cultural resources sensitivity training program. The Qualified Archaeologist, or its designee, shall instruct all construction personnel of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, applicable laws protecting archaeological resources, and confidentiality of discoveries. Native American monitor(s) shall be invited to participate in presenting tribal perspectives as part of the training curriculum. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. The project proponent or its contractors shall ensure construction personnel are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County.

Mitigation Measure 3.6-4: Archaeological Resources Discoveries. In the event archaeological resources are encountered during construction of a project, the project proponent shall cease all activity within 50 feet of the find shall cease. The discovery shall be evaluated for significance by the Qualified Archaeologist. When assessing significance and developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. If the Qualified Archaeologist determines that the resource is significant (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), the Qualified Archaeologist shall provide a method for avoidance and preservation in place, which shall be the preferred manner of mitigating impacts. If avoidance is infeasible, the Qualified Archaeologist shall develop a Phase III Archaeological Resources Data Recovery and Treatment Plan consistent with Mitigation Measure 3.6-5. The Qualified Archaeologist also shall determine, based on the initial assessment of the discovery, whether the 50-foot buffer may be reduced. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to Extended Phase I, Phase II, and Phase III reports).

Mitigation Measure 3.6-5: Treatment of Archaeological Resources. If the assessment conducted under Mitigation Measure 3.6-2 or Mitigation Measure 3.6-4 identifies significant archaeological resources (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), then avoidance and preservation in place shall be the preferred manner of mitigating impacts. Preservation in place may be accomplished by, but

is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance and preservation in place of significant archaeological resources is determined by the County to be infeasible, then the Qualified Archaeologist shall prepare a Phase III Archaeological Resources Data Recovery and Treatment Plan. The plan shall include: a detailed research design; justification for data recovery or other treatment methods depending on the nature of the resource's eligibility; excavation methodology; and, reporting and curation requirements. When developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. All Phase III reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center.

Mitigation Measure 3.6-6: Curation and Disposition of Cultural Materials. The project proponent shall arrange curation for all Native American archaeological materials, with the exception of funerary objects or grave goods (i.e., artifacts associated with Native American human remains). For significant Native American archaeological materials, the project proponent shall first consider repositories that are accredited by the American Association of Museums and that meet the standards outlined in 36 CFR 79.9. If a suitable accredited repository is not identified, then the project proponent shall consider nonaccredited repositories as long as they meet the minimum standards set forth by 36 CFR 79.9. If a suitable nonaccredited repository is not identified, then the project proponent shall donate the collection to a local California Native American tribe(s). Non-significant archeological materials shall be donated to a local California Native American tribe(s). If neither an accredited or nonaccredited repository or tribe accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes. Disposition of Native American human remains and associated funerary objects or grave goods shall be determined by the landowner in consultation with the County and the MLD.

The project proponent shall curate all significant historic-period archaeological material, or portions thereof at the discretion of the Qualified Archaeologist, at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then the project proponent may curate it at a nonaccredited repository as long as it meets the minimum standards set forth in 36 CFR 79.9. If neither an accredited nor a nonaccredited repository accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes.

Significance after Mitigation: The Draft 2045 CAP, due to projects facilitated by Draft 2045 CAP measures and actions, would result in a less-than-significant impact on historical resources after implementation of Mitigation Measures 3.6-1 through 3.6-6. The implementation of these measures would reduce significant impacts on historical resources resulting from projects facilitating Draft 2045 CAP measures and actions by avoiding or reducing the significant impact. Mitigation Measure 3.6-1 requires identification of historical resources of a built nature that could be affected by a project to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that projects be designed to conform with the Secretary of the Interior's Standards to avoid or reduce significant impacts on such resources. Mitigation Measure 3.6-2 requires identification of significant archaeological resources (i.e., resources considered historical resources or unique archaeological resources) to avoid or reduce inadvertent significant

impacts on such resources. The measure further requires that archaeological/Native American monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent significant impacts on such resources. Mitigation Measure 3.6-3 requires that construction personnel involved in ground-disturbing activities be trained in the identification of cultural resources to assist in avoidance or minimizing of inadvertent potentially significant impacts on such resources. Mitigation Measures 3.6-4 and 3.6-5 require that significant archaeological resources be avoided and preserved in place if feasible. If avoidance and preservation in place is not feasible, then data recovery is required to recover the scientifically consequential information contained in the resource, which would avoid or reduce significant adverse impacts on the resource. Mitigation Measure 3.6-6 provides for final disposition of archaeological materials, such as curation or donation to a Native American group or other entity, to reduce significant impacts on such resources by preserving the materials for those with research or educational interests.

Criterion b) Whether the Project would cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Impact 3.6-2: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. (*Less than Significant with Mitigation Incorporated*)

As discussed, prehistoric and historic-period archaeological resources are known to exist across the County, including in its unincorporated areas where the Draft 2045 CAP would be implemented. Archaeological resources not qualifying as historical resources may still qualify as unique archaeological resources under CEQA. While approval of the Draft 2045 CAP itself would not cause a substantial adverse change in the significance of a unique archaeological resource, it is possible that projects facilitated by Draft 2045 CAP measures and actions would involve ground-disturbing activities that, depending on their location, could result in direct or indirect adverse changes to the significance of unique archaeological resources. Examples of projects that could be facilitated by the Draft 2045 CAP include renewable energy projects (e.g., utility-scale solar PV energy generation projects, battery storage, substation, and transmission infrastructure) in the Antelope Valley and other types of projects that would entail ground disturbance. These projects would be required to comply with applicable federal, state, and local laws that protect unique archaeological resources and, where applicable, to undergo the County's discretionary review process, including completion of subsequent project-level planning and environmental review under CEQA. Such projects nonetheless could result in significant impacts on unique archaeological resources under CEQA.

Implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce significant impacts on unique archaeological resources to a less-than-significant level.

Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts on unique archaeological resources after the implementation of Mitigation Measures 3.6-2 through 3.6-6. The implementation of these measures would reduce significant impacts

on unique archaeological resources by avoiding or reducing the significant impact. Mitigation Measure 3.6-2 requires identification of unique archaeological resources to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that archaeological/Native American monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent significant impacts on such resources. Mitigation Measure 3.6-3 requires that construction personnel involved in ground-disturbing activities be trained in the identification of cultural resources to assist in avoidance or minimizing of inadvertent significant impacts on such resources. Mitigation Measures 3.6-4 and 3.6-5 require that unique archaeological resources be avoided and preserved in place if feasible. If avoidance and preservation in place is not feasible, then data recovery is required to recover the scientifically consequential information contained in the resource, which would avoid or reduce significant adverse impacts on the resource. Mitigation Measure 3.6-6 provides for final disposition of archaeological materials, such as curation or donation to a Native American group or other entity, to reduce significant impacts on such resources by preserving the materials for those with research or educational interests.

Criterion c) Whether the Project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact 3.6-3: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant with Mitigation Incorporated*)

Geologic mapping indicates a majority of the deposits within the study area consist of Holocene, Pleistocene, Pliocene, and Miocene-age sedimentary deposits. Additionally, there are occurrences of Cretaceous, Jurassic, and Triassic-age metamorphic and igneous rocks associated with the San Gabriel and Eastern Santa Monica mountains in the Project area (Yerkes and Campbell 2005). These deposits vary in sensitivity for the presence of paleontological resources. Future projects facilitated by Draft 2045 CAP measures and actions that would involve ground disturbing activities, depending on their location, could result in direct or indirect adverse changes to the significance of a unique paleontological resource or site or unique geologic feature. These projects would be required to comply with existing federal, state, and local regulations that protect paleontological resources and unique geologic features and undergo the County's discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA. Such projects could nonetheless result in significant impacts to unique paleontological resources or sites or unique geologic features under CEQA. However, implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce impacts to a less-than-significant level.

Mitigation Measure 3.6-7: Paleontological Resources Assessment and Monitoring.

For projects facilitated by Draft 2045 CAP measures and actions that involve ground disturbance, the project proponent shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for qualified professional paleontologist (Qualified Paleontologist) to prepare a paleontological resources assessment report prior to the start of construction activities. The report shall include methods and results of the paleontological resources assessment, monitoring requirements (including depths,

frequency, and reporting), and maps that outline where monitoring is required. Monitoring shall follow SVP Guidelines: no monitoring of ground-disturbing activities within units of *Low Sensitivity* or *No Potential*; monitoring of all ground-disturbing activities (with depths specified) in units of *Low to High Significance*; and at all depths within units of *High Significance* unless the Qualified Paleontologist's report identifies previous disturbances or the use of construction methods which do not warrant monitoring; and monitoring at the initiation of excavation in units of *Undetermined Significance*. The report also shall stipulate whether screen washing is necessary to recover small specimens following SVP Guidelines and determine whether unique geologic features are present onsite. If monitoring is conducted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit it to the project proponent and the County.

Mitigation Measure 3.6-8: Paleontological Resources Sensitivity Training. Prior to the start of ground-disturbing activities for projects facilitated by Draft 2045 CAP measures and actions with potentially significant impacts on paleontological resources, the Qualified Paleontologist or its designee shall conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers. Construction workers shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The project proponent shall ensure that construction workers are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County.

Mitigation Measure 3.6-9: Paleontological Discoveries. If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area determined by the paleontological monitor shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading/excavation contractor shall assist, where feasible, in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes.

If construction workers discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described earlier in this measure.

Any salvage reports resulting from implementation of this measure shall be filed with the Natural History Museum of Los Angeles County.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts on unique paleontological resources and unique geologic features after implementation of Mitigation Measures 3.6-7 through 3.6-9. These measures would reduce significant impacts on unique paleontological resources by avoiding or reducing the significant impact. Mitigation Measure 3.6-7 requires, prior to any construction activities that involve ground disturbance, identification of unique paleontological resources and unique geologic features to avoid or reduce inadvertent potentially significant impacts on such resources. The measure further requires that paleontological monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent potentially significant impacts on such resources. Mitigation Measure 3.6-8 requires that construction personnel involved in ground-disturbing activities be trained in the identification of paleontological resources to assist in avoidance or minimizing of inadvertent potentially significant impacts on such resources. Mitigation Measure 3.6-9 requires that unique paleontological resources are recovered and curated.

Criterion d) Whether the Project would disturb any human remains, including those interred outside of dedicated cemeteries.

Impact 3.6-4: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would disturb any human remains, including those interred outside of dedicated cemeteries. (*Less than Significant with Mitigation Incorporated*)

Human remains associated with the prehistoric and historic periods that are interred outside of a dedicated cemetery are known to occur Countywide, including the County's unincorporated areas. Projects facilitated by Draft 2045 CAP measures and actions that involve ground disturbing activities, depending on their location, could result in disturbance of human remains. Examples of such projects include renewable energy projects (e.g., utility-scale solar PV energy generation projects, battery storage, substation, and transmission infrastructure) in the Antelope Valley. Ground-disturbing projects of all kinds would be required to comply with applicable federal, state, and local regulations that protect human remains and, where applicable, undergo the County's discretionary review process, including completion of subsequent project-level planning and environmental review under CEQA. Such projects nonetheless could result in significant impacts on human remains under CEQA, including to human remains interred outside of dedicated cemeteries.

Implementation of Mitigation Measure 3.6-10 would reduce impacts to a less-than-significant level.

Mitigation Measure 3.6-10: Human Remains Discoveries. If human remains are encountered, then the project proponent or its contractor shall immediately halt work within 50 feet of the discovery and contact the County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, which require that no further disturbance shall occur until the County Coroner has made the necessary findings as to the remains' origin and disposition. If the County Coroner determines that the remains are Native American, then the County Coroner will notify the NAHC within 24 hours in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98. The NAHC shall then identify the person(s) thought to be the MLD. The MLD may, with the permission of the land owner, or

their authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. The project proponent, the County, and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.

Until the project proponent, the County, and the landowner have conferred with the MLD, the contractor shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected according to generally accepted cultural or archaeological standards or practices (e.g., the NAHC's *A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods* [NAHC 2022], which reiterates statutory requirements), and that further activities take into account the possibility of multiple burials.

If the NAHC is unable to identify an MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Public Resources Code Section 5097.94(k), if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts on human remains after implementation of Mitigation Measure 3.3-10. This measure would reduce significant impacts on human remains by immediately halting construction activities in the event of a possible discovery to avoid or reduce significant impacts. Mitigation Measure 3.6-10 requires the project proponent and the County to follow Health and Safety Code Section 7050.5(c) and Public Resources Code Section 5097.98 in the event Native American human remains are encountered, which includes halting work, notifying the County Coroner, and consulting with the MLD. Further, the measure requires the project proponent, the County, and the landowner to work with the MLD for treatment of the remains to avoid or reduce significant impacts, or the landowner to reinter the remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance if an agreement cannot be reached to avoid or reduce significant impacts.

3.6.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on cultural resources, the geographic area of consideration (i.e., the cumulative impacts study area) consists of Los Angeles County. This geographic scope of analysis is appropriate for the analysis of cultural resources because the historical resources, unique archaeological resources, and human remains within this area are similar in nature and origin, and share a common heritage. For paleontological resources and unique geologic features, the geographic scope of analysis is appropriate because the geology, formations, and sediments within this area are expected to be similar. Cumulative impacts could

result at various locations within this area from the initiation of on-the-ground work in furtherance of a project facilitated by the Draft 2045 CAP measures and actions and until ground-disturbing activities cease.

Criterion a)

Impact 3.6-5: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on historical resources. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The County has a rich prehistoric and historic archaeological record as well as numerous historic-period buildings and structures. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect the significance of archaeological and historic architectural resources qualifying as historical resources, which may include the resources identified in Tables 3.6-1 through 3.6-4, by adversely altering and/or demolishing such resources. Because all historical resources are unique and nonrenewable members of finite classes, projects that demolish or alter them could cause or contribute to a significant cumulative impact on historical resources.

The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-1 through 3.6-6. With the implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on historical resources over the span of the Draft 2045 CAP, would not be cumulatively considerable because they would specify that, before construction of aboveground infrastructure that might affect known historic architectural resources, an architectural historian must identify historical resources, provide recommendations, require archaeological monitoring, and prepare a plan for the treatment of historical resources. With the implementation of Mitigation Measures 3.6-1 through 3.6-6, a less-than-significant cumulative impact on historic resources would result.

Mitigation: Implement Mitigation Measures 3.6-1 through 3.6-6.

Significance after Mitigation: Less than Significant.

Criterion b)

Impact 3.6-6: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact to unique archaeological resources. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The County has a rich prehistoric and historic archaeological record. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles

County 2021), have affected and can be expected to continue to affect the significance of unique archaeological resources in the unincorporated areas, including as a result of disturbance to unanticipated discoveries of such resources during ground-disturbing activities. Because such resources are, by definition, one of a kind, projects that adversely affect unique archaeological resources could cause or contribute to a significant cumulative impact.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-2 through 3.6-6. With the implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on unique archaeological resources over the span of the Draft 2045 CAP, would not be cumulatively considerable because they would require identification and treatment of unique archaeological resources, and would thereby avoid or reduce significant impacts. With the implementation of these mitigation measures, a less-than-significant cumulative impact to unique archaeological resources would result.

Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.

Significance after Mitigation: Less than Significant.

Criterion c)

Impact 3.6-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact to unique paleontological resources or sites or unique geologic features. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The County has a rich paleontological resources record. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect the significance of unique paleontological resources or sites or unique geologic features in the unincorporated areas, including as a result of disturbance to unanticipated discoveries of such resources during ground-disturbing activities at fossil-bearing depths.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-7 through 3.7-9. With the implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on unique paleontological resources or sites or unique geologic features over the span of the Draft 2045 CAP, would not be cumulatively considerable because they would require identification and treatment of unique paleontological resources or sites or unique geologic features and would thereby avoid or reduce significant impacts. With the implementation of these mitigation measures, a less-than-significant cumulative impact on unique paleontological resources or sites or unique geologic features would result.

Mitigation: Implement Mitigation Measures 3.6-7 through 3.6-9.

Significance after Mitigation: Less than Significant.

Criterion d)

Impact 3.6-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact to human remains, including those interred outside of dedicated cemeteries. (*Less than Significant Cumulative Impact with Mitigation Incorporated*)

There are 81 cemeteries in the County, including several in the unincorporated areas (Find a Grave 2022), and a high likelihood that human remains also are interred outside of dedicated cemeteries. There is no evidence of an existing significant cumulative impact from disturbance of human remains interred within dedicated cemeteries, and the Draft 2045 CAP would not cause or contribute to one. However, given the County’s long history, the combined incremental impacts of past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have discovered human remains interred outside of dedicated cemeteries. For example, workers building a subway extension in 2005 unearthed the skeletal remains of 108 people just outside the Evergreen Cemetery in Boyle Heights in the city of Los Angeles (Lawrence Journal World 2006). Cumulative finds of human remains interred outside of dedicated cemeteries have resulted in a significant cumulative impact.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measure 3.6-10. With the implementation of this measure, the Project-specific, incremental contribution, considered with the cumulative projects’ impacts on human remains interred outside formal cemeteries over the span of the Draft 2045 CAP, would not be cumulatively considerable because the measure would require the project proponent and the County to follow the law governing such finds, including by halting work, notifying the County Coroner, and consulting with the MLD or taking other specified, appropriate actions to assure treatment of the remains with appropriate dignity. If human remains of Native American origin are discovered during work associated with a project facilitated by the Draft 2045 CAP, then the project proponent and/or the County would be required to comply with state laws related to the disposition of Native American burials (e.g., Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98). With the implementation of this mitigation measure, a less-than-significant cumulative impact would result.

Mitigation: Implement Mitigation Measure 3.6-10.

Significance after Mitigation: Less than Significant.

3.7 Energy

This section identifies and evaluates issues related to energy to determine whether the Project would result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources or a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period.

3.7.1 Setting

3.7.1.1 Study Area

The study area for this analysis of impacts on energy consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*. Electric utility service in the unincorporated areas of the County is supplied by the Clean Power Alliance (CPA), which is a public agency and the default electricity provider for the unincorporated areas of Los Angeles. The CPA was established in 2018 as a joint powers authority with unincorporated Los Angeles County, Rolling Hills Estates, and South Pasadena as founding members (Clean Power Alliance 2022a). Southern California Edison (SCE) also provides electric utility service for the unincorporated areas of the County (CEC 2020a). Natural gas service in the unincorporated areas of the County is supplied by Southern California Gas Company (SoCal Gas) with the exception of SCE for Santa Catalina Island (CEC 2020b).

3.7.1.2 Environmental Setting

Energy Supply

Electricity

Electricity produced within California in 2020 was from natural gas (37 percent), renewable resources (33 percent),¹ large hydroelectric (12 percent), nuclear (9 percent), coal (3 percent), and unspecified sources (5 percent).² In 2020, the total electrical system power generated was 272,576 gigawatt-hours (GWh), which is down approximately 2 percent from 2019's total system electric generation. Overall, California's total grid-served electric generation continues to decline as local, distributed generation systems expand across the state. In 2020, California experienced the third

¹ Renewable energy includes biomass, geothermal plants, small hydroelectric (under 30 MW), solar, and wind.

² Unspecified power refers to electricity that is not traceable to a specific generating facility, such as electricity traded through open market transactions. Unspecified sources of power are typically a mix of resource types and may include renewables. This category can also include spot market purchases, wholesale energy purchases, and purchases from pools of electricity where the original source of fuel can no longer be determined (CEC 2022g).

driest year since year since 1895, as drought conditions returned to the state. Similarly, 2020 had the third highest annual average temperature recorded over the past 126-year record. As a result, annual hydroelectric generation fell by 44 percent from 2019 levels to 21,414 GWh. California uses energy generated in-state and imports electricity from the Southwest or Pacific Northwest of the United States. In 2020, approximately 191,000 GWh of electricity was generated in-state, while approximately 82,000 GWh of electricity was imported from out of state (CEC 2022a). In 2020, 65,650 GWh of electricity were consumed in Los Angeles County, which is equal to approximately 27 percent of the total electricity consumption in the state (CEC 2022b).

The Clean Power Alliance offers three clean, renewable power choices to communities across Los Angeles County. Since the CPA's inception in 2018, its 100 percent Green Power product, which includes 100 percent eligible renewable power, has been Green-e® certified.³ Since January 1, 2021, the CPA offers commercial and industrial customers the option to opt in to a 100 percent Green Power product that is Green-e® Energy certified (Clean Power Alliance 2022b). In October 2022, the CPA had 18 member agencies receiving completely renewable power when CPA customers, including in the County, default to 100 percent Green Power (Clean Power Alliance 2022c).

Natural Gas

In 2020, the total natural gas usage across California was 12,331.53 million therms. Within Los Angeles County, total natural gas usage in 2020 was approximately 2,937 million therms, which equates to approximately 24 percent of the state's total natural gas usage for the year (CEC 2022c). Natural gas continues to play an important and varied role in California. Nearly 45 percent of the natural gas burned in California was used for electricity generation, and much of the remainder consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors (CEC 2022d).

California continues to depend upon out-of-state imports for nearly 90 percent of its natural gas supply. Natural gas has become an increasingly important source of energy since most of the state's fossil-fuel power plants rely on this fuel (CEC 2022d). However, in Southern California, natural gas production has steadily declined. In 2016, Governor Edmund G. Brown Jr., declared a state of emergency in Porter Ranch due to a natural gas leak that sickened people and forced the relocation of approximately 7,000 homes and several schools. In 2018, it was announced that NRG Energy would close three natural gas plants in Southern California, including: Etiwanda in Rancho Cucamonga, Ormond Beach in Oxnard, and Ellwood in Goleta (SCAG 2019).

More than 101,000 miles of transmission and distribution pipes and four natural gas storage facilities make up the natural gas infrastructure needed to provide natural gas throughout the SoCal Gas service territory (SoCal Gas 2022a). ASPIRE 2045 is SoCal Gas's strategy to further integrate sustainability across its business. This strategy builds upon SoCal Gas's climate commitment to achieve net zero greenhouse gas (GHG) emissions in its operations and delivery of energy by 2045 (SoCal Gas 2022b).

³ Green-e® Energy is a consumer protection program designed to provide purchasers of renewable energy good product information, assurance of product quality, and verification of product ownership.

Petroleum-Based Fuel

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles (CEC 2022e). In 2020, 12.6 billion gallons of gasoline were sold statewide, and 2.8 billion gallons (22 percent of statewide sales) were sold in Los Angeles County (CEC 2022f). In 2020, 1.7 billion gallons of diesel were sold statewide, and approximately 0.6 billion gallons (17 percent of statewide sales) were sold in Los Angeles County (CEC 2022f). In 2015, California reported a total of 29,830,797 registered on-road vehicles, including light-duty cars (54 percent), light-duty trucks (43 percent), and medium- and heavy-duty trucks (3.3 percent) (CEC 2022e).

Energy and Water

Water and energy are dependent on one another as water is essential in the production of electricity and electricity is required to pump, treat, and heat water. California's water system is energy intensive and may account for up to 10 percent of the state's GHG emissions. According to the most recent estimates, approximately 20 percent of statewide electricity and 30 percent of natural gas for business and home use go to pumping, treating, and heating water. Water is also required to produce energy, including in hydropower generation, thermoelectric power plants, and oil and gas extraction (PPIC 2018).

3.7.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Executive Order 13990

Executive Order (EO) 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, directs the heads of all federal agencies to review immediately all agency actions adopted during the former administration that conflict with the current administration's public health, climate, and environmental policy objectives and to take action as appropriate and consistent with applicable law. This executive order further directs the heads of relevant agencies to consider new rules that would suspend, revise, or rescind specific regulations enacted or proposed during the former administration regarding vehicle fuel economy standards and appliance and building efficiency standards, among others, to ensure that such standards reduce pollution. EO 13990 repeals many energy-related executive orders from the former administration that sought to advance fossil fuel resource development on federal lands, including EO 13783.

Energy Policy and Conservation Act of 1975

The Energy Policy and Conservation Act of 1975 (Public Law 94-163, 89 Stat. 871) was enacted for the purpose of serving the Nation's energy demands and promoting conservation methods when feasibly obtainable. The act was recently amended to (US Legal 2022):

- Grant specific authority to the president to fulfill obligations of the U.S. under the international energy program.
- Provide for the creation of a Strategic Petroleum Reserve capable of reducing the impact of severe energy supply interruptions.

- Conserve energy supplies through energy conservation programs, and the regulation of certain energy uses.
- Provide for improved energy efficiency of motor vehicles, major appliances, and certain other consumer products.
- Provide a means for verification of energy data to assure the reliability of energy data.
- Conserve water by improving the water efficiency of certain plumbing products and appliances.

National Energy Act of 1978

In response to the energy crisis in the 1970s, Congress passed the National Energy Act of 1978 to establish energy efficiency programs, tax incentives, tax disincentives, energy conservation programs, alternative fuel programs, and regulatory and market-based initiatives (GPO 1978). It includes five statutes:

- Public Utility Regulatory Policies Act (Public Law 95–617)
- Energy Tax Act (Public Law 95–618)
- National Energy Conservation Policy Act (Public Law 95–619)
- Power Plant and Industrial Fuel Use Act (Public Law 95–620)
- Natural Gas Policy Act (Public Law 95–621)

Energy Policy Act of 1992

The Energy Policy Act (Public Law 102-486) set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. It established regulations requiring certain federal, state, and alternative fuel provider fleets to build an inventory of alternative fuel vehicles. It was amended several times in the Energy Conservation and Reauthorization Act of 1998 and in 2005 via the Energy Policy Act in 2005, which emphasized alternative fuel use and infrastructure development (DOE 2022a).

Energy Policy Act of 2005

On August 8, 2005, President George W. Bush signed the National Energy Policy Act of 2005 (Public Law 109-58) into law. This comprehensive energy legislation contains several electricity-related provisions that aim to:

- Help ensure that consumers receive electricity over a dependable, modern infrastructure.
- Remove outdated obstacles to investment in electricity transmission lines.
- Make electric reliability standards mandatory instead of optional.
- Give federal officials the authority to site new power lines in DOE-designated national corridors in certain limited circumstances.

The Renewable Fuel Standard (RFS) program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. The program regulations were developed in collaboration with refiners, renewable fuel producers, and many

other stakeholders. As required by the Energy Policy Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012 (GPO 2005).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act (EISA; Public Law 110-140) was signed into law by President George W. Bush on December 19, 2007. The Act's goal is to achieve energy security in the United States by increasing renewable fuel production, improving energy efficiency and performance, protecting consumers, improving vehicle fuel economy, and promoting research on GHG capture and storage. Under the EISA, the RFS program (RFS2) was expanded in several key ways:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

RFS2 lays the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector.

The EISA also includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers (GPO 2007).

Fuel Economy Standards

On September 15, 2009, the National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) announced a proposed joint rule that would explicitly tie fuel economy to GHG emissions reductions requirements. In April 2020, USEPA and NHTSA amended the Corporate Average Fuel Economy (CAFE) and GHG emissions standards for passenger cars and light trucks and established new less stringent standards, covering model years 2021 through 2026 (Part Two of the Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). The CAFE and carbon dioxide (CO₂) emissions standards increase in stringency at 1.5 percent per year from model year 2020 levels over model years 2021 through 2026. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020. On April 22, 2021, NHTSA proposed to formally roll back portions of the SAFE Vehicles Rule, thereby restoring California's right to set more stringent fuel efficiency standards. NHTSA is also planning to issue a new rule to increase the national fuel economy standard for light-duty vehicles beyond those in Part Two of the SAFE Vehicles Rule (NHTSA 2021). Moreover, on August 5, 2021, President Joe Biden signed an executive order that targets making half of all new vehicles sold in 2030 zero-emissions vehicles, including battery

electric, plug-in hybrid electric, or fuel cell electric vehicles (White House Briefing Room 2021). More recently proposed federal motor vehicle tailpipe emissions standards include:

- *Revocation of the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule:* On March 14, 2022, the USEPA published its Notice of Decision to restore California’s waiver, which allows California to set more stringent vehicle fuel efficiency standards, rescinding the SAFE Vehicles Rule (*Federal Register* Volume 87, page 14332).
- *Issuance of the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards:* The issuance of these standards revises the GHG standards for vehicles from model year 2023 through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector, which are expected to result in average fuel economy label values of 40 miles per gallon, while the standards they replace (the SAFE rule standards) would achieve only 32 miles per gallon in model year 2026 vehicles (USEPA 2021c).

State Laws, Regulations, and Policies

California Integrated Energy Policy

In 2002, the Legislature passed Senate Bill (SB) 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

The CEC has adopted the 2021 Integrated Energy Policy Report, which assesses major energy trends and issues facing the state’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies, enhance the state’s economy, and protect public health and safety. The 2021 Integrated Energy Policy Report covers a broad range of topics, including building decarbonization, ensuring reliability in a changing climate, decarbonizing the state’s gas system, and the California energy demand forecast (CEC 2022g).

Renewables Portfolio Standard

First established in 2002 under SB 1078, California’s Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030. SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. On September 10, 2018, Governor Edmund G. Brown Jr., signed SB 100, which further increased California’s RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31,

2030, and that the California Air Resources Board (CARB) should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

SB 1020, signed on September 16, 2022, revises SB 100, and instead requires that renewable energy resources and zero-carbon resources supply 90 percent of all retail electricity sales to end-use customers by December 31, 2035, 95 percent by December 31, 2040, and 100 percent of by December 31, 2045, and supply 100 percent of electricity procured to serve all state agencies by December 31, 2035. The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

Title 24 Building Energy Efficiency Standards

Title 24 of the California Code of Regulations is the California Building Code governing all aspects of building construction. Part 6 of the Building Code includes standards mandating energy efficiency measures in new construction. Since its establishment in 1978, the building efficiency standards (along with standards for energy efficiency in appliances) have contributed to a reduction in electricity and natural gas usage and costs in California. The standards are updated every three (3) years to incorporate new energy efficiency technologies. The 2019 update to the Title 24 standards became effective January 1, 2020. The 2022 update to the Title 24 standards became effective January 1, 2023. The standards regulate energy consumed in buildings for heating, cooling, ventilation, water heating, and lighting. Title 24 is implemented through the local planning and permits processes (CEC 2018).

Regional Transportation Plan/Sustainable Communities Strategy

SB 375 requires each Metropolitan Planning Organization to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks. For the Southern California Association of Governments (SCAG) region, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) adopted on September 3, 2020, is the current RTP/SCS and is an update to the prior 2016-2040 RTP/SCS (SCAG 2020).

The 2020-2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. The 2020-2045 RTP/SCS includes "Core Vision," which centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

Fuel Efficiency

CARB is responsible for the coordination and administration of both federal and state air pollution control programs in California. Some of the regulations and measures that CARB has adopted to reduce particulate matter, nitrogen oxides, and other emissions have the co-benefits of reducing GHG emissions and increasing fuel efficiencies. Refer to the *Transportation Sector*

discussion in Section 3.9, *Greenhouse Gas Emissions*, Subsection 3.9.1.3, *Regulatory Setting*, for the associated CARB regulations and measures.

Construction Equipment Idling

CARB has also adopted a regulation for in-use off-road diesel vehicles that is designed to reduce emissions from diesel-powered construction vehicles by imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The regulation requires an operator of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to no more than 5 minutes.

Regional and Local Laws, Regulations, and Policies

Clean Cities Program

The U.S. Department of Energy’s Clean Cities Program promotes voluntary, locally based government/industry partnerships for the purpose of expanding the use of alternatives to gasoline and diesel fuel by accelerating the deployment of alternative fuel vehicles (AFVs) and building a local AFV refueling infrastructure. The mission of the Clean Cities Program is to advance the nation’s economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. The Clean Cities Program carries out this mission through a network of more than 80 volunteer coalitions, which develop public/private partnerships to promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction (DOE 2022b).

The Southern California/SCAG Clean Cities Coalition was first designated by the U.S. Department of Energy on March 1, 1996. SCAG directly administers the SCAG Clean Cities Program. This coalition supports government and industry partnerships to expand alternative fuel vehicles and infrastructure throughout the SCAG region.

OurCounty: Los Angeles Countywide Sustainability Plan

The Los Angeles Countywide Sustainability Plan, also named OurCounty, is a regional sustainability plan for Los Angeles County (Los Angeles County 2019). The following OurCounty goals may apply to the Draft 2045 CAP:

Goal 1: Resilient and healthy community environments where residents thrive in place

Goal 2: Buildings and infrastructure that support human health and resilience

Goal 3: Equitable and sustainable land use and development without displacement

Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy

Goal 7: A fossil fuel-free LA County

Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency

Goal 9: Sustainable production and consumption of resources

Goal 11: Inclusive, transparent, and accountable governance that facilitates participation in sustainability efforts, especially by disempowered communities

3.7.2 Impact Analysis

3.7.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on energy if it would:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation; or
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.7.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by the County, which are set forth above in Section 3.7.2.1, *Significance Criteria*, to determine whether the Draft 2045 CAP, including future projects facilitated by Draft 2045 CAP measures and actions, would result in the inefficient, wasteful, or unnecessary use of energy result and thereby result in significant impacts to energy. Impacts related to energy are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.7.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures and various implementing actions to reduce GHG emissions in the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities, are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air

Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of energy-related impacts. These and other relevant measures and actions include:

- (1) Measure ES1 and associated Action ES1.1 (because it would result in collaboration to develop a sunset strategy for all oil and gas operations);
- (2) Measure ES2 and associated Action ES2.1 (because it would result in a transition of County facilities within unincorporated areas to CPA's 100% Green Power option, SCE's 100% Green Rate option, or other available 100% renewable electricity service) and Action ES2.2 (which would increase enrollment of the community to 96 percent participation in CPA's 100% Green Power option, SCE's Green Rate option, or other available 100 percent zero-carbon electricity service);
- (3) Measure ES3 and associated Actions ES3.1, ES3.2, and ES3.3 (which would result in rooftop solar photovoltaic);
- (4) Measure ES4 and associated Actions ES4.2 and ES4.4 (which would result in additional energy storage and microgrids at critical County facilities, and would result in limitation of peak energy demand);
- (5) Measure T6 and associated Actions T6.2, T6.3, T6.4, T6.5, and T6.7 (which would result in the installation of electric vehicle charging stations, pilot vehicle-grid integration applications at workplaces, and increase the use of green hydrogen vehicles);
- (6) Measure T7 and associated Actions T7.1 and T7.2 (which would electrify the County bus fleet, inmate transfer fleet, shuttles, and light-duty fleet vehicles);
- (7) Measure T8 and associated Actions T8.2, T8.3, T8.4, and T8.5 (which would result in the installation of zero emission vehicle (ZEV) charging and alternative fueling infrastructure for medium- and heavy-duty vehicles, and electrify the County medium- and heavy-duty vehicle fleet);
- (8) Measure E1 and associated Actions E1.1, E1.2, E1.3, E1.4 (which would result in the electrification of applicable existing buildings and achieve zero net energy for certain buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face);
- (9) Measure E2 and associated Actions E2.1 and E2.2 (which would require all-electric and zero net energy for all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face);

- (10) Measure E3 and associated Action E3.1 (which would increase levels of biomethane in the natural gas mix); and
- (11) Measure E4 and associated Actions E4.1 and E4.3 (which would increase the energy efficiency of existing buildings and convert existing County–owned heat-trapping surfaces to cool or green surfaces).

The timeframe during which the implementation of these actions and measures could affect energy would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually causes wasteful, inefficient, or unnecessary consumption of energy resources, or a conflict with a plan for renewable energy or energy efficiency. If an impact occurs, it would occur immediately and either could be short-term (e.g., energy use during construction phase), medium-term (e.g., until the state or local plan is amended or the conflict is resolved), or longer term. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP’s increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific energy-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP’s proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP’s measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants’ CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.

Impact 3.7-1: The Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. (*No Impact*)

The Draft 2045 CAP provides an approach to reducing GHG emissions and facilitates associated benefits of reducing energy demand from community activities, including future development

under the General Plan. The Draft 2045 CAP's proposed Strategies, Measures, and Actions include both increases in renewable energy production and improvement of energy efficiency.

The Draft 2045 CAP would be a policy document containing GHG emissions reduction measures and implementation actions to reduce GHG emissions. It does not propose any specific development or other physical changes to the environment and would not facilitate growth beyond what the General Plan would allow. To promote energy conservation, the County has adopted an amended California Green Building Standards Code per Title 31 (Green Building Standards) of the Los Angeles County Code. Therefore, any construction associated with projects implementing Draft 2045 CAP measures and actions would be required to be designed to comply with the performance levels of the California Green Building Standards Code, as amended in Title 31. Likewise, all such projects would be required to comply with the energy standards in the California Energy Code, Part 6 of the California Building Code (Title 24), and the green building standards in Part 11 of Title 24.

Furthermore, the purpose and intended effect of the Draft 2045 CAP is to reduce GHG emissions generated in the County to help reduce the impacts of climate change, including those emissions generated by energy demand and supply. The Draft 2045 CAP includes strategies, with corresponding implementation measures and actions, that would reduce energy use in buildings and decarbonizing the energy that is used, reduce indoor and outdoor water consumption through ordinances, tiered billing structures, education and outreach and/or promotion of conservation programs, and increasing the supply of energy to communities with zero-carbon or low-carbon electricity through a number of means that may include large utility-scale solar power generation in Antelope Valley, distributed or decentralized power generation, energy storage and microgrids, strategic partnerships with the Clean Power Alliance of Southern California and other actions. Specifically, the Draft 2045 CAP aims to reduce electricity use through requiring zero net energy buildings for applicable buildings (Measures E1 and E2), increasing the efficiency of existing buildings (Measure E4), increasing the use of recycled water which would reduce electricity associated with water conveyance and distribution (Measure E5), and reducing indoor and outdoor water use (Measure E6). Further the Draft 2045 CAP would promote adoption of renewable energy production in both new and existing residential and commercial development (Measure ES3), which would decrease grid energy demand and advance the County toward its electrification and zero net energy targets (Measures ES2, E1, and E2), all of which would support the state's energy efficiency and renewable energy goals.

Implementation of CAP Measure E1 and associated Actions E1.1, E1.2, E1.3, and E1.4 would result in the electrification of applicable existing buildings and achieve zero net energy for certain new buildings. This aligns with building electrification as a major focal point of state agencies and electric utilities in reaching the state's renewable energy and GHG reduction goals.

According to SCE, approximately one-third of space and water heating in all buildings within SCE's service territory must be electric by 2030 and three-quarters must be electric by 2045 to meet state goals (SCE 2019). Pursuant to SB 1477, the combined CPUC-approved and proposed funding for building electrification projects and developments is approximately \$435 million through 2024 (CPUC 2020). One of the CPA's three major program measure categories to build and strengthen future local programs is electrification, which includes public charging of electric

vehicles, building electrification code incentives, all-electric post-fire rebuilding, and natural gas appliance replacement (CPA 2020). Therefore, the Draft 2045 CAP would facilitate building electrification to support these state goals.

Electrification may put additional strain on the electricity grid as the demand for electricity increases, including in rural communities and other parts of the County that are already facing grid capacity problems such as blackouts and brownouts. Although the maintenance and improvement of the electricity grid is outside of the jurisdiction of the County, state agencies and electric utilities are working to strengthen and enhance the electricity grid to increase the supply of renewable electricity along with grid reliability and resilience.

To achieve growth and reliability in the electricity grid, SCE is planning grid investments of up to \$75 billion. These investments will be used for multiple purposes: (1) integrate bulk renewable generation and storage and serve the load growth associated with transportation and building electrification; (2) provide transmission upgrades for generation interconnections within the state; (3) increase utility-scale storage to balance load and resources and to minimize transmission and distribution upgrades; (4) provide grid upgrades to meet increased demand and peak loads; and (5) modernize the grid to harness the full potential of Distributed Energy Resources (DERs) (SCE 2019). The CPA plans for \$200 million in local investment in customer programs and community priorities centered around resiliency and grid management, building and transportation electrification, and local renewable energy procurement (CPA 2020).

The CPUC is currently working to ensure electricity reliability and adequate supply while meeting clean energy goals. CPUC ordered that utilities procure over 21,500 megawatts (MW) of new electricity resources from 2021 to 2026, including solar, wind, geothermal, and long-duration storage-pumped hydro facilities or other emerging technologies that can store energy for eight hours or longer (CPUC 2021a). CPUC will continue to increase grid capacity and supply to reach the state's goal of 100 percent zero-carbon electricity by 2045. CPUC's primary modernization approach to increase grid reliability and capacity involves a high penetration of DERs such as rooftop solar, energy storage, and electric vehicles (CPUC 2021b). To support DERs, CPUC plans to modernize the grid by integrating solar, storage, electric vehicles, and other DERs; improving distribution planning; and optimizing grid infrastructure investments.

Furthermore, as described in Section 3.9, *Greenhouse Gas Emissions*, CARB's 2022 Scoping Plan outlines the strategies the state will implement to achieve carbon neutrality by 2045. A major strategy is the phase-out of fossil fuels for heating and mobility. CARB recognizes that this and other strategies will create substantial new demand for electricity, and ensuring the reliability of a decarbonized grid is a critical need for the state (CARB 2022). CARB plans to increase DERs and microgrids as a major grid modernization strategy to ensure future grid reliability.

Measure ES3 and associated Actions ES3.1, ES3.2, and ES3.3 would facilitate rooftop solar photovoltaic installations for both existing residential and commercial buildings to balance new electricity demand and to support CPUC's, CARB's, and SCE's strategies for the expansion of DERs. In addition, Measure ES4 and associated Actions ES4.2 and ES4.4 would facilitate the

development of energy storage and microgrids at critical County facilities that align with CARB, CPUC, and SCE goals.

In summary, the Draft 2045 CAP's measures and actions regarding building and vehicle electrification were developed with the understanding that state agencies and utilities have implementation strategies in place to increase the capacity of the grid and improve its reliability as electricity demand throughout the County increases. Therefore, the Draft 2045 CAP would not result in the inefficient consumption of energy resources related to electrification and grid capacity.

The Draft 2045 CAP would also include strategies, with corresponding implementation measures and actions, that would reduce vehicle miles traveled, emissions, and transportation fuel consumption. The CAP includes transportation strategies, measures and actions that would reduce fuel consumption such as: locating development within High Quality Transit Areas; emphasizing non-motorized travel through the County's Pedestrian Action Plan, Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan; expanding the electric vehicle charging infrastructure; and partnering with transit agencies to electrify the County bus and shuttle fleets. For example, the Draft 2045 CAP aims to electrify 100 percent of the County bus fleet by 2035 (Measure T7), in line with Metro's goal of electrification for its fleet. This would reduce diesel, gasoline, and natural gas consumption from buses and would have the co-benefit of reducing air pollutant and GHG emissions. Similarly, the Draft 2045 CAP aims to transition passenger and heavy-duty vehicles to ZEVs in line with the state's Mobile Source Strategy (Measure T6 and T8), which would reduce diesel, gasoline, and natural gas consumption of on-road vehicles in support of state goals. The Draft 2045 CAP's waste measures (Measures W1 and W2) would also result in greater waste diversion from landfills and decreased waste generation per capita resulting in less fuel consumption from haul trucks to landfills and would generate energy through waste-to-energy conversion systems.

For these reasons, and because the CAP measures and actions include specific features promoting renewable energy use, the Draft 2045 CAP would result in no impact regarding wasteful, inefficient, or unnecessary consumption of energy resources.

Mitigation Measure: None required.

Criterion b) Whether the Project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Impact 3.7-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (No Impact)

For the reasons explained in the context of criterion a), the implementation of Draft 2045 CAP measures and actions would not cause an impact relating to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency, such as the RPS, California Integrated Energy Policy Plan, Title 24 Building Energy Efficiency Standards, RTP/SCS, and the OurCounty Los Angeles Countywide Sustainability Plan.

Mitigation: None required.

3.7.2.4 Cumulative Impacts

For the purposes of this analysis of energy impacts, the geographic area considered for the cumulative impacts analysis comprises the County and a 40-mile travel radius for fuels. Impacts could result at various locations within this area from the initiation of on-the-ground work of a project facilitated by Draft 2045 CAP measures and actions and could last until such projects are decommissioned and the sites restored.

Criterion a and b)

Impact 3.7-3: Projects facilitated by the Draft 2045 CAP could result in a significant cumulative impact due to wasteful, inefficient, or unnecessary consumption of energy resources during their construction or operation, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (No Impact)

Projects facilitated by Draft 2045 CAP measures and actions, in combination with the incremental impacts of other closely related past, present, and reasonably foreseeable future projects could result in impacts at various locations due to energy use. Nonetheless, because the Project would not cause an incremental adverse energy impact, it would not cause or contribute to a significant cumulative energy impact.

Mitigation: None required.

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3.8 Geology and Soils

This section identifies and evaluates issues related to geology and soils to determine whether the Project would result in a significant impact related to a risk of loss, injury, or death involving rupture of a known earthquake fault, seismicity, or landslides; or related to erosion or unstable soils. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to geology and soils request consideration of impacts resulting from future renewable energy projects facilitated by the Draft 2045 CAP. These comments include suggestions that such development would cause erosion from vegetation removal in the Antelope Valley, where soil stability is highly variable and where regulatory agencies (Antelope Valley Air Quality Management District and Antelope Valley Resource Conservation District) have been challenged to control windblown dust from existing solar farms.

3.8.1 Setting

3.8.1.1 Study Area

The study area for this analysis of impacts related to geology and soils consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2 1, *Map of Unincorporated Los Angeles County*.

3.8.1.2 Environmental Setting

Topography

More than 50 percent of the unincorporated areas of the County are located in hilly or mountainous terrain. The County designates areas with slopes that are 25 percent or steeper as Hillside Management Areas (HMAs) (Los Angeles County 2015a). Within unincorporated areas, most of the HMAs are adjacent to Angeles National Forest, near the coast in the Santa Monica Mountains and Palos Verdes Hills, and within the Santa Susana Mountains, Verdugo Mountains, and Puente Hills, which are three small ranges centrally located in the Los Angeles Basin. Elevations in Los Angeles County range from near sea level in the coastal areas to over 10,000 feet above mean sea level in Angeles National Forest (Los Angeles County 2015b).

Geomorphic Provinces

Los Angeles County primarily encompasses three geomorphic provinces: the Mojave Desert, the Transverse Ranges, and the Peninsular Ranges. A small portion of the Southern Coastal Ranges overlaps with the northwestern tip of Los Angeles County. Although each of these provinces extends beyond County borders, each province encompasses a distinct area of Los Angeles

County. The characteristics and general locations of the Mojave Desert, Transverse Ranges, and Peninsular Ranges geomorphic provinces are described below.

Mojave Desert

The Mojave Desert geomorphic province is approximately 25,000 square miles and encompasses the northern third of Los Angeles County, nearly all of San Bernardino County, and portions of Kern, Riverside, and Imperial Counties. The portion of the Mojave Desert that is in Los Angeles County is generally synonymous with the Antelope Valley.

The Mojave Desert is characterized by isolated mountain ranges separated by expanses of desert plains. It includes several prominent fault lines, ephemeral lakebeds, and small hills that are remnants of ancient mountain topography. The highest elevations in the Mojave Desert approach 4,000 feet above mean sea level, and the majority of the valleys lie between 2,000 feet and 4,000 feet above mean sea level.

The Mojave Desert is located between the Garlock Fault to the north, which forms the southern boundary of the Sierra Nevada, and the San Andreas Fault to the west. The Garlock Fault line is located within Kern County, while the San Andreas Fault traverses the County (Los Angeles County 2015b; CGS 2002).

Transverse Ranges

A substantial portion of Los Angeles County lies within this geomorphic province. The County's land areas that generally fall within this province include the following: the portions of the Antelope Valley Planning Area that are in and adjacent to the Angeles National Forest; the majority of the Santa Clarita Valley Planning Area; the Santa Monica Mountains Planning Area; the San Fernando Valley Planning Area; and the northern sections of the Westside, Metro, West San Gabriel Valley, and East San Gabriel Valley Planning Areas.

The Transverse Ranges are an east-west-trending string of mountain ranges that extend approximately 320 miles from Point Arguello in Santa Barbara County to the Little San Bernardino Mountains in Riverside County. This geomorphic province is generally bounded by the Coast Ranges province to the north, the Mojave Desert province to the east, the Pacific Ocean to the west, and the Peninsular Ranges province to the south. The San Gabriel Mountains and the Sierra Pelona, both of which lie within Los Angeles County, are part of the Transverse Ranges.

The Transverse Ranges support the highest peaks in California south of the central Sierra Nevada and are one of the most rapidly rising regions on earth. Intense north-south compression results in the prominent basins and peaks found within this geomorphic province, and several active fault lines, including the San Andreas Fault, are located within this province. The Transverse Ranges also support the only Paleozoic rocks found within coastal mountains in the United States. This province is considered one of the most geologically diverse areas in California (Los Angeles County 2015b; CGS 2002).

Peninsular Ranges

The Peninsular Ranges occupy approximately the southeastern third of Los Angeles County. This geomorphic province consists of a series of mountain ranges separated by northwest-trending

valleys running subparallel to faults branching from the San Andreas Fault. The Peninsular Ranges geomorphic province is bounded to the north by the Transverse Ranges, to the west by the Pacific Ocean, and to the east by the Colorado Desert geomorphic province. This province extends about 775 miles south of the border between the U.S. and Mexico.

The geology of this province includes granitic rock intruding older metamorphic rocks, gradual west-facing slopes, and steep east-facing slopes (CGS 2002). The planning areas that lie generally within this province include the southern portions of the Westside, Metro, West San Gabriel Valley, and East San Gabriel Valley Planning Areas and the entirety of the South Bay, Gateway, and Coastal Islands Planning Areas (Los Angeles County 2015b; CGS 2002).

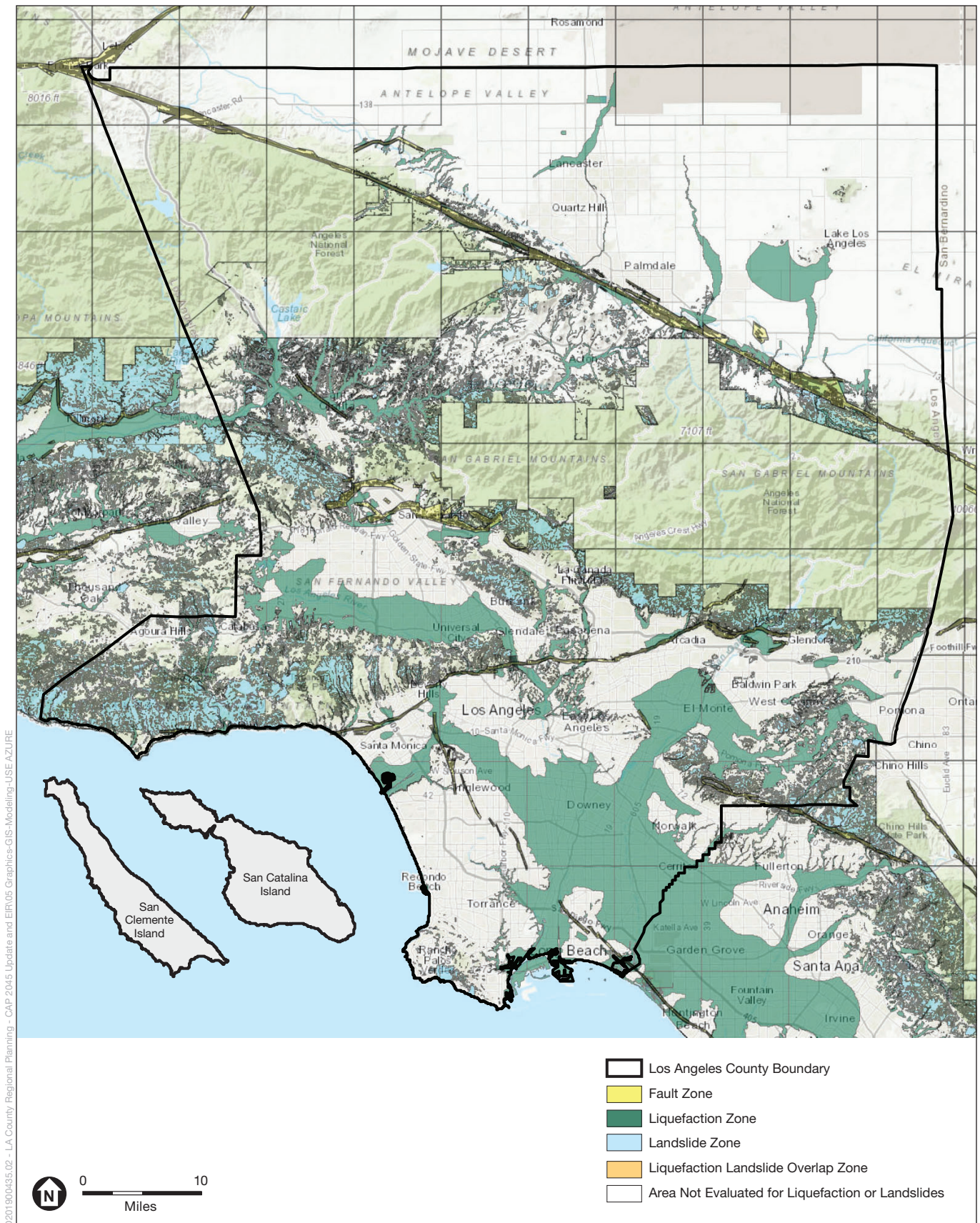
Soils

Soils throughout the Los Angeles County differ in origin, composition, and slope development. When evaluating potential impacts of development, soils are typically considered for their resource value in agricultural production or for their potential development characteristics or constraints. Some soils are susceptible to erosion and/or expansive behavior, while others are more suitable for compaction for construction. Soils are classified by their distinguishing characteristics and are arranged within soil associations, which are groups of soil units that occur together in a pattern over a geographic region.

The unincorporated urban islands generally have been characterized as having soils that are well suited for urban development. Exceptions include the Palos Verdes Hills (South Bay Planning Area), where corrosive and expansive soils have been identified, and areas in and around the city of Calabasas (Santa Monica Mountains Planning Area), where corrosive soils with high expansion potential have been identified (Los Angeles County 2015b). Portions of the Antelope Valley are underlain by soils with the potential for susceptibility to *hydrocollapse*, meaning that they undergo a radical rearrangement of particles and great decrease in volume upon wetting, additional loading, or both (Los Angeles County 2015b; Reclamation 1992). Soil collapse due to wetting can cause severe damage to canals, dams, pumping plants, power plants, pipelines, roads, buildings, fields, and miscellaneous structures associated with a variety of types of projects. The Los Angeles County Department of Public Works has compiled a Geographic Information System database for major soil types mapped within the County. The information in this database describes nearly two dozen soil types, including loams; clayey, silty, and sandy loams; clay adobes; and various alluvial and mountain soil types (Los Angeles County 2022a).

Geologic Hazards

Los Angeles County's varied topography, numerous mountain ranges, and multiple fault lines render it susceptible to a variety of geologic hazards, including seismic hazards and geotechnical hazards. Seismic hazards are caused by earthquakes and include ground rupture, liquefaction, landsliding, and tsunamis. See **Figure 3.8-1, *Geologic Setting of Unincorporated Areas of Los Angeles County***. Geotechnical hazards are most likely to occur in hilly or mountainous terrain and include mud and debris flows, active deep-seated landslides, hillside erosion, undercutting of slopes, and human-induced slope instability. Geotechnical hazards can also result from soils that are expansive, compressible, or collapsible (Los Angeles County 2015b).



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SOURCE: California Department of Conservation, 2022

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.8-1
Geologic Setting of Unincorporated Areas of Los Angeles County



Faulting and Ground Shaking

Los Angeles County is located in a seismically active region of Southern California, with over 50 active and potentially active fault segments within its borders, an undetermined number of buried faults, and at least four blind thrust faults. Faults within Los Angeles County trend generally northwest-southeast. In the areas surrounding fault traces, fault and seismic hazard zones have been designated by the County to identify areas of active seismic concern (Los Angeles County 2015b).

The California Geological Survey (CGS) defines *active faults* as those that have shown surface displacement within the past 11,000 years (the Holocene era) and *potentially active faults* as those that have ruptured between 11,000 and 1.6 million years ago (the Quaternary era) (CGS 2018). *Inactive faults* are those that demonstrate no evidence of movement within Quaternary time.

Several active fault lines have been identified within Los Angeles County, and the San Andreas Fault is the most prominent (Los Angeles County 2015b). This fault line enters Los Angeles County in its northwestern corner, extends along the northeastern side of the Angeles Crest, and crosses into San Bernardino County at the eastern border. The segment of this fault line within Los Angeles County extends through the Antelope Valley Planning Area. A variety of active fault lines that are substantially shorter than the San Andreas Fault crisscross the unincorporated urban islands. Many of these fault lines traverse an unincorporated urban island, or cross or are located near an unincorporated community. Many of these active faults, including the San Andreas Fault, are located within an Alquist-Priolo Earthquake Hazard Fault Zone. Because of the numerous active fault lines within unincorporated areas of the County, portions of the unincorporated areas of the County are susceptible to fault rupture, and Los Angeles County as a whole is susceptible to ground shaking from an earthquake occurring along any of numerous faults located within its borders, in surrounding counties, or off the coast. The strength of ground shaking is correlated with an area's proximity to an active fault line that triggers an earthquake (Los Angeles County 2015b).

Liquefaction

Liquefaction occurs when water-saturated soils that are loosely packed and granular in nature lose their cohesion when subjected to seismic activity and exhibit fluid-like characteristics. Soils subject to liquefaction are usually found in areas with a near-surface water table. The majority of seismically induced liquefaction zones are located in incorporated cities within the unincorporated urban islands geographical region. However, because numerous unincorporated urban islands are interspersed with incorporated cities throughout this region, liquefaction has the potential to occur within unincorporated urban islands as well. Additionally, there are several smaller liquefaction zones in the northern part of Los Angeles County within unincorporated urban islands in the Santa Clarita Valley and Antelope Valley Planning Areas (Los Angeles County 2015b; Koordinates.com 2019). *Liquefaction zones* identify where the stability of foundation soils must be investigated, and countermeasures undertaken in the design and construction of buildings for human occupancy. Statutes require that cities and counties use these zones as part of their construction permitting process.

Landslides

A *landslide* is the movement or flow of soil, rocks, earth, water, or debris down a slope. Seismic activity can trigger landslides, especially on steep slopes or on slopes with slide planes that move easily. CGS produces maps of potential landslide areas throughout California.

The County designates landslide areas based on the CGS maps, which are updated periodically, often in response to a geologic event (DOC 2022). Over 50 percent of unincorporated areas of the County are composed of hilly or mountainous terrain. The steep slopes in these areas make them more prone to landsliding and to other hazards that are often associated with steep slopes, such as mudflows, debris flows, rockfalls, and natural or artificial compaction of unstable ground. The County's Hillside Management Areas Ordinance regulates development on hillsides that have natural slope gradients of 25 percent or steeper to address potential hazards related to steep slopes. Many of the areas shown as Seismically Induced Landslide Zones are also within a designated HMA (Los Angeles County 2015b).

Buildings Prone to Seismic Damage

Earthquake risks are not limited to ground shaking, fault rupture, or liquefaction, but could also damage inhabited buildings or sensitive, human-made infrastructure. Advances in the field of seismic engineering and strengthened building codes have significantly reduced the potential for catastrophic collapse in newly constructed buildings. However, many older buildings were designed and constructed before modern seismic design standards were incorporated into the building code. Certain building types are of particular concern: unreinforced masonry buildings and precast concrete tilt-up buildings (Los Angeles County 2021).

Erosion

Soil erosion is a natural, ongoing process that transports and displaces soil through mechanisms such as water or wind. The texture of soil, its compactness, and its structure influence its susceptibility to erosion, with texture having the most influence. Intermediate-textured soils are the most likely to undergo erosion, while soils with clay and particles that are coarser than sand tend to be more resistant to erosion. Areas with loosely textured soil overlying steep slopes are often highly susceptible to soil erosion. Wind erosion is most severe in arid regions because these areas often have unvegetated sandy or loamy sediments that are frequently exposed to high wind conditions (Los Angeles County 2015b).

The majority of the soils within Los Angeles County exhibit moderate to high erosion potential. Erosion can be exacerbated by development, which often results in removal of vegetative cover and addition of impervious surfaces. Construction has the potential to result in direct loss of topsoil, while vegetation removal has the potential to result in more permanent exposure of topsoil to erosive factors such as wind and runoff. The addition of impervious surfaces has the potential to increase runoff rates, thereby inducing erosion in downslope areas. The consequences of erosion range from increased siltation in storm drains to changes in topography and undercutting of nearby structures (Los Angeles County 2015b).

Desert Erosion

Human development in desert regions such as the Antelope Valley has the potential to exacerbate blowing sand, a severe form of wind erosion. Blowing sand has the potential to result in property damage and accumulation of soil on roadways. Additionally, blowing sand can result in reduced visibility on roadways and may cause health effects such as Valley Fever. See Section 3.4.1.2, *Environmental Setting*, in Section 3.4, *Air Quality*, for details about Valley Fever. Briefly, however, the fungus *Coccidioides immitis* is naturally present in certain soils. Fungi can be inhaled when stirred into the air by anything that disrupts soils in which the fungi are present, such as farming, construction, and wind. The fungus causes the disease coccidioidomycosis, known as Valley Fever. The fungus that can cause Valley Fever is known to occur in some soils throughout Los Angeles County, particularly in the Antelope Valley (Los Angeles County 2015c).

Coastal Erosion

Coastal erosion is a natural process that is typically most visible during storm events. Extreme erosion can result in visible coastline retreat and can involve strong wave action that undercuts slopes, leading to potential slope failure, property loss, and risks to human safety. The coastal areas of Los Angeles County are susceptible to wave erosion, and the area of Malibu within the Santa Monica Mountains Planning Area has undergone extreme erosion in the past. Naturally occurring coastal erosion forces can be exacerbated by human activities such as coastal road construction, channelization of surface water flows, or development on marine terraces.

The islands that make up the Coastal Islands Planning Area (Santa Catalina and San Clemente Islands) are surrounded by the Pacific Ocean, and two small portions of the unincorporated areas of the County in the Santa Monica Mountains Planning Area directly abut the ocean. One of these areas is an approximately 1.5-mile segment of unincorporated coastline immediately east of the city of Malibu and the other is an approximately 1-mile segment of unincorporated coastline immediately west of the city of Malibu. Areas of Los Angeles County that contain coastline are minimal relative to the aggregate size of the unincorporated County. Coastal erosion is thus not a prominent issue in the unincorporated areas of the County, but it does have the potential to occur in the two shoreline areas identified above and along the shorelines of Santa Catalina and San Clemente Islands.

Unstable Soils

Unstable soils include soils that are prone to landslide, lateral spreading, subsidence, liquefaction, or collapse. Landslides, as defined above, are the movement of earth material down a slope. *Lateral spreading* is a horizontal displacement of surficial blocks of sediments resulting from liquefaction in a subsurface layer of soil. *Subsidence* involves deep-seated settlement caused by the withdrawal of underground fluid (oil, natural gas, or water). *Liquefaction*, also defined above, occurs when soils behave in a fluid manner due to a loss of cohesion, generally caused by a seismic event. *Collapsible soils* are generally low-density, fine-grained granular soils that lose volume when they become saturated with water. Collapsible soils, when saturated, have the potential to undergo rapid settlement under relatively low loads.

As discussed above, the unincorporated areas of the County contain designated landslide and liquefaction zones. Because it is linked to liquefaction, lateral spreading would have the potential

to occur within portions of the liquefaction zones. Subsidence would have the potential to occur in areas where groundwater or fossil fuels are being withdrawn in the unincorporated areas.

Expansive Soils

Expansive soils are those that change their volume depending on the presence and extent of water saturation in the soil. The Uniform Building Code defines the expansive potential of a soil by its expansion index, which, if greater than 20, typically requires special foundation design consideration under the Uniform Building Code. The expansive potential of soils is typically related to the type and amount of clay minerals in a soil, along with the moisture content of the soil and how often it changes (i.e., wet/dry cycles). Expansive soils can be widely dispersed and are found in hillside areas as well as low-lying areas in alluvial basins. Currently, no reliable maps show the distribution of expansive soils in Los Angeles County; however, all soils possess some capacity for expansive behavior (Los Angeles County 2015b). Through geotechnical testing and/or consultation with the Los Angeles County Department of Public Works, it can be determined whether a specific site contains expansive soils and to what extent these soils would affect a proposed project.

3.8.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) established the National Earthquake Hazards Reduction Program, which is coordinated through the Federal Emergency Management Agency (FEMA), the U.S. Geological Survey (USGS), the National Science Foundation, and the National Institute of Standards and Technology (FEMA 2021).

The purpose of this program is to establish measures for earthquake hazards reduction and promote the adoption of earthquake hazards reduction measures by federal, state, and local governments; national standards and model code organizations; architects and engineers; building owners; and others with a role in planning and constructing buildings, structures, and lifelines, through the following:

- Grants, contracts, cooperative agreements, and technical assistance
- Development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines
- Development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction

The Earthquake Hazards Reduction Program is intended to improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decisions sciences.

Disaster Mitigation Act

The federal Disaster Mitigation Act (Public Law 106-390, 2000) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian tribal governments as a condition of mitigation grant assistance. Requirements of the Disaster Mitigation Act emphasize the need for state, local, and Indian tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. The Disaster Mitigation Act also established a new requirement for local mitigation plans and authorized up to 7 percent of Hazard Mitigation Grant Program funds available to a state for development of state, local, and Indian tribal mitigation plans.

The California Governor's Office of Emergency Services manages hazard mitigation activities and projects through the Hazard Mitigation Grant Program (Cal OES 2018, 2022). For Los Angeles County, the *Public Draft 2019 County of Los Angeles All-Hazards Mitigation Plan* was issued in 2019 (Los Angeles County Chief Executive Office 2019).

Clean Water Act Section 402

Section 402 of the Clean Water Act (United States Code Title 33, Section 1251 et seq.) establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program controls water pollution by regulating point sources that discharge pollutants, including rock, sand, dirt, and agricultural, industrial, and municipal waste, into waters of the United States. The U.S. Environmental Protection Agency has delegated to the State Water Resources Control Board (SWRCB) the authority for the NPDES program in California, which is implemented by the state's nine regional water quality control boards (RWQCBs). Under the NPDES Phase II Rule, construction activity disturbing one or more acres must obtain coverage under the State of California's General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). As described further in Section 3.11, *Hydrology and Water Quality*, the Construction General Permit requires project applicants to develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies best management practices (BMPs) that reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards, and to perform inspections and maintenance of all BMPs.

U.S. Geological Survey Landslide Hazard Program

The USGS Landslide Hazard Program provides information on landslide hazards including information on current landslides, landslide reporting, real-time monitoring of landslide areas, mapping of landslides through the National Landslide Hazards Map, local landslide information, landslide education, and research. (See, generally, USGS 2022.)

State Laws, Regulations, and Policies

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (Public Resources Code Section 2621; California Code of Regulations Title 14, Section 3601 et seq.) requires that special

geologic studies be conducted to locate and assess any active fault traces in and around known active fault areas prior to development of structures for human occupancy to prevent the construction of such structures in such locations. In this way, the Alquist-Priolo Act provides measures to increase the safety of the state's citizens and to minimize the loss of life during and immediately following earthquakes by facilitating seismic retrofitting to strengthen buildings, including historical buildings, against ground shaking. The act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. The purpose of the Seismic Hazards Mapping Act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and other hazards caused by earthquakes. The program and actions mandated by the Seismic Hazards Mapping Act closely resemble those of the Alquist-Priolo Act.

In furtherance of the Seismic Hazards Mapping Act, CGS has issued its *Guidelines for Evaluating and Mitigating Seismic Hazards in California* for evaluating seismic hazards other than surface fault rupture. The most current guidelines are provided in Special Publication 117A of 2008 (CGS 2008).

California Building Code

The California Building Code (CBC) is a compilation of building standards codified in California Code of Regulations Title 24, Part 2. Provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure in California. The CBC is published on a triennial basis, and supplements and errata can be issued throughout the cycle. The 2022 edition of the CBC became effective on January 1, 2023, and is based on the 2021 International Building Code (IBC) of the International Code Council, with California amendments. The 2022 CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program (FEMA 2021) to mitigate losses from an earthquake.

CBC standards are based on the following:

- Building standards that have been adopted by state agencies without change from a national model code such as the IBC
- Building standards based on a national model code that have been changed to address conditions specific to California
- Building standards authorized by the California Legislature but not covered by the national model code

The CBC includes provisions for demolition and construction, as well as regulations regarding building foundations and soil types to protect people and property from hazards associated with falling debris or construction processes. Seismic standards within the CBC are among the strictest in the world because of California's susceptibility to earthquakes and other seismic events.

Southern California Catastrophic Earthquake Response Plan

The *Southern California Catastrophic Earthquake Response Plan*, based on CGS and USGS's Shake Out Scenario of 2008, was released in 2010 (CalEMA and FEMA 2018). It provides for examination of initial impacts, inventories of resources, care for those wounded and homeless, and development of a long-term recovery process characterized by a coordinated state/federal response to a catastrophic earthquake in Southern California.

The *Southern California Catastrophic Earthquake Response Plan* is supplemented by the 2012 *Los Angeles Regional Recovery Guidance for Emergency Planners* (Los Angeles County et al. 2012) and its process of Long-Term Regional Recovery. The Long-Term Regional Recovery process provides a mechanism for coordinating federal support to state, tribal, regional, and local governments, nongovernmental organizations, and the private sector to enable recovery from long-term consequences of extraordinary disasters. The Long-Term Regional Recovery process accomplishes this by identifying and facilitating the availability and use of recovery funding sources and providing technical assistance (such as impact analysis) for recovery and recovery planning support. In this case, *long-term* refers to the need to reestablish a healthy, functioning region that would sustain itself over time. Long-term recovery is not debris removal and restoration of utilities, which are considered immediate or short-term recovery actions. The three main focus areas of the Long-Term Regional Recovery process are housing, infrastructure (including transportation), and economic development.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The Safety Element of the General Plan provides the following goals and policies potentially relevant to the Draft 2045 CAP (Los Angeles County 2022b):

Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.

Policy S 1.1: Discourage development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.

Policy S 1.2: Prohibit the construction of most structures for human occupancy adjacent to active faults until a comprehensive fault study that addresses the potential for fault rupture has been completed.

Policy S 1.3: Require developments to mitigate geotechnical hazards, such as soil instability and landsliding, in Hillside Management Areas through siting and development standards.

Policy S 1.4: Support the retrofitting of unreinforced masonry structures to help reduce the risk of structural and human loss due to seismic hazards.

The Conservation and Natural Resources Element of the General Plan provides the following goals and policies potentially relevant to the Project (Los Angeles County 2015d):

Goal C/NR 13: Protect visual and scenic resources.

Policy C/NR 13.5: Encourage required grading to be compatible with the existing terrain.

Policy C/NR 13.8: Manage development in HMAs to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

Los Angeles County Hillside Management Areas

The County's HMA Ordinance and related Hillside Design Guidelines apply to all unincorporated areas of the County that contain terrain with a natural slope of 25 percent or greater. The goal is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. The ordinance and guidelines implement those policies by ensuring that hillside development projects use sensitive and creative engineering, architectural, and landscaping site design techniques. Locating development outside of HMAs to the greatest extent feasible will be the first emphasis of sensitive hillside design. Where avoidance is not feasible, development of HMAs will be located in the lowest and flattest areas of the hillside to minimize impacts on steeper hillside areas. Last, development will utilize a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the Los Angeles County Planning and Zoning Code.

Los Angeles County Code—Building Code

The County Building Code is contained in Title 26 of the County Code. It adopts much of the CBC by reference and also contains rules and regulations governing activities that have the potential to result in soil erosion or slope instability. Appendix J of Title 26 includes regulations for excavation, grading, and earthwork; permitting procedures; and plan approval and grading inspection protocol. Section JI 10, Grading Projects, sets forth measures to reduce erosion during construction such as check dams, cribbing, riprap, and other best practice methods. Title 26 also includes seismic safety requirements for certain building types, such as older concrete tilt-up buildings and unreinforced masonry bearing wall buildings. The purpose of these requirements is to promote public safety and welfare by reducing the risk of death or injury resulting from damage to older buildings caused by earthquakes.

Los Angeles County Code—Erosion and Sediment Control Plans

The Grading Code includes regulations for erosion control and water quality for grading and other ground-disturbing operations. NPDES compliance is required for all projects within the unincorporated areas of the County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan. Grading permits are not issued by the County until an erosion and sediment control plan is approved or details for erosion control are included in the grading plan. Erosion and sediment control plans include specific BMPs to minimize the transport of sediment and to protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The BMPs shown on erosion and sediment control plans must be installed on or before October 15. Erosion and sediment control plans must be revised annually or as required by the Building Official to reflect the current conditions of a site.

For grading projects with a disturbed area of one or more acres, the required state SWPPP may be used for fulfilling the County's erosion and sediment control plan requirements. As with an erosion

and sediment control plan, a grading permit cannot be issued until the SWPPP has been submitted and approved by the Building Official (Los Angeles County Code Sections JI10.8.2 and JI10.8.3).

County All-Hazards Mitigation Plan

The General Plan's Safety Element works in conjunction with the County's All-Hazards Mitigation Plan, which is prepared by the Los Angeles County Chief Executive Office – Office of Emergency Management and sets strategies for natural and man-made hazards in Los Angeles County (Los Angeles County Chief Executive Office 2019). The All-Hazards Mitigation Plan was adopted by the County of Los Angeles Board of Supervisors in October 2004 and has been approved by FEMA and the California Emergency Management Agency. The plan includes a compilation of known, projected, and historical hazards in the county and addresses all major natural and human-caused disasters that fall within the responsibilities of County departments within the geographic county. Earthquakes and landslides are addressed in the County All-Hazards Mitigation Plan, with earthquakes categorized as High Risk Priority Hazards and landslides categorized as Moderate Risk Priority Hazards.

3.8.2 Impact Analysis

3.8.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The project would have a significant impact related to geology and soils if it would:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42;
 - ii) Strong seismic ground shaking;
 - iii) Seismic-related ground failure, including liquefaction and lateral spreading; or
 - iv) Landslides;
- b) Result in substantial soil erosion or the loss of topsoil;
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- d) Be located on expansive soil¹ creating substantial direct or indirect risks to life or property;

¹ The CBC, based on the International Building Code and the now defunct Uniform Building Code, no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

- e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater; or
- f) Conflict with the Hillside Management Area Ordinance (Los Angeles County Code, Title 22, Chapter 22.104).

3.8.2.2 Methodology

This geology and soils analysis considers whether the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, would exacerbate existing geologic hazards that would expose people or structures to substantial adverse impacts. To determine the significance of potential geology and soils impacts, the analysis compares the unincorporated areas relative to the location of known seismic hazards, such as active fault zones, landslide zones, and liquefaction zones. If projects facilitated by Draft 2045 CAP measures and actions could be developed within the aforementioned zones, then potential impacts could result. To determine the significance of impacts unrelated to seismic hazard zones, the analysis considers the impact of compliance with independently enforceable federal, state, and local requirements. Typically, compliance with all applicable regulations would ensure a less-than-significant impact on future projects. Impacts related to geology and soils are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.8.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics, because the locations and design specifics of projects that would be facilitated by the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities, are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed

under the General Plan’s land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, does not identify any specific strategy, measure, or action as particularly relevant to the analysis of geology and soils related impacts. Nonetheless, any project facilitated by Draft 2045 CAP measures and actions that disturbs the ground surface could cause soil erosion or the loss of topsoil that is located on a geologic unit or soil that is unstable for any of the specified reasons could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse and the resulting impacts to life and property. The timeframe during which the implementation of these actions and measures could affect life or property by affecting existing seismic or erosion- or stability-related conditions would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually causes impacts on at-risk geologic units or soils. If an impact occurs, it would occur immediately and either could be short-term (i.e., remediated promptly) or be long-term depending on the severity of the impact. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP’s increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific impacts associated with geology and soils resources are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP’s proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP’s measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants’ CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a.i) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace.

Impact 3.8-1: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that could cause potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace. Nonetheless, projects facilitated by Draft 2045 CAP measures and actions could be proposed in one of these areas.

The Alquist-Priolo Act prohibits the development of structures for human occupancy across active fault traces. Under the Alquist-Priolo Act, the California Geological Survey has established “Zones of Required Investigation” on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as *Earthquake Fault Zones* and are shown on official maps published by CGS (2021). Surface rupture occurs when the ground surface is broken as a result of a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault.

The California Earthquake Hazards Zone Application (EQ Zapp) is an interactive map available on CGS’s website. The EQ Zapp allows users to view all available earthquake hazard zone data, including earthquake fault, liquefaction, and earthquake-induced landslide zones. According to the EQ Zapp, eight Earthquake Fault Zones cross through portions of the unincorporated areas of the County: the East Montebello, Hollywood, Newport–Inglewood–Rose Canyon, San Andreas, San Gabriel, Santa Monica, Sierra Madre, and Raymond fault zones (CGS 2021).

Projects facilitated by Draft 2045 CAP measures and actions would require project-specific evaluation once details are known, but could include habitable structures within or adjacent to Earthquake Fault Zones. However, the construction of any new structure and improvements to certain existing structures in California is subject to the standards and requirements included in the most current versions of the CBC and, in Los Angeles County, the County Building Code, which adopts the CBC and adds additional County-specific requirements. In general, the CBC and the County Building Code require that every newly constructed structure (habitable or not) be subject to a geotechnical investigation that typically consists of a preliminary geotechnical investigation to characterize site conditions and inform the project design, followed by the final geotechnical investigation that provides final geotechnical recommendations to address problematic site conditions, if any. The CBC further requires that a fault study be included in the

geotechnical investigation of any new development that is proposed near an active fault to verify no active fault passes through the site.

All projects facilitated by Draft 2045 CAP measures and actions would be constructed in accordance with all applicable state and local laws (e.g., the Alquist-Priolo Act, the CBC, and the County Building Code). Earthquake Fault Zones would be identified during the planning process for any new project, and avoided when the location of new habitable structures is decided. Adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse impacts from the presence of a known Earthquake Fault Zone would be less than significant.

Mitigation: None required.

Criterion a.ii) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking.

Impact 3.8-2: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that could cause potential substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking. Los Angeles County is located in a historically seismically active region of California, as is evident by the presence of several Holocene-active faults in the area. The 2014 Working Group on California Earthquake Probabilities² concluded that there is an approximate 50 percent probability that a magnitude (moment magnitude) 6.7 earthquake or higher could occur in the Los Angeles region over the next 30 years, and a 53 percent chance of an earthquake of that magnitude within the southern portion of the San Andreas fault zone over the next 30 years (Field et al. 2015). As discussed above, several faults transect the unincorporated areas of the County. The presence of these faults suggests that the unincorporated areas may be subject to strong seismic ground shaking in the event of an earthquake in the region.

Projects facilitated by Draft 2045 CAP measures and actions would be subject to all relevant federal, state, and local regulations and building standards, including the CBC and the County Building Code, as discussed above under Impact 3.8-1. Compliance with applicable building codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of permits, whereby project-specific geotechnical hazards would be identified and specific design criteria would be incorporated into individual project design plans. Geotechnical design criteria are incorporated to ensure that structures can withstand potential ground shaking from regional fault sources. Although projects facilitated by Draft 2045 CAP measures and actions (e.g., utility-scale solar power plants developed in the Antelope Valley) could be damaged by strong seismic ground shaking, potential damage to the components (such as photovoltaic panels) from seismic events could easily be repaired and would not pose a

² A working group comprised of seismologists from the U.S. Geological Survey, California Geological Survey, Southern California Earthquake Center, and California Earthquake Authority.

significant hazard of loss, injury, or death. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking. A less-than-significant impact would result.

Mitigation: None required.

Criterion a.iii) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading.

Impact 3.8-3: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would cause potential substantial adverse impacts, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading. *Liquefaction* is a phenomenon in which unconsolidated, water-saturated sediments become unstable as a result of the impacts of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. *Lateral spreading* is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads as a result of the effects of gravity, usually down gentle slopes. *Liquefaction-induced lateral spreading* has been defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake (Rauch 1997). The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table).

The potential damaging impacts from liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs from sand boiling, and buckling of deep foundations caused by ground settlement. Dynamic settlement (pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure. According to the EQ Zapp, there are several areas of concern for liquefaction potential in unincorporated areas of the County (CGS 2021).

Projects facilitated by Draft 2045 CAP measures and actions could be subject to impacts from liquefaction and/or lateral spreading should they be proposed in susceptible areas, thereby exposing people and structures to the potentially damaging impacts from liquefaction and/or lateral spreading. Earthquake-induced liquefaction or lateral spreading could occur in

unincorporated areas of the County, potentially resulting in damage to new structures, service interruptions, and injuries to the public.

Projects facilitated by Draft 2045 CAP measures and actions would be subject to all relevant federal, state, and local regulations and building standards, including the CBC and the requirements of the County's building and grading codes. Construction-related grading would require the preparation and submittal of site-specific grading plans and geotechnical investigation reports that must be reviewed and approved by the County before construction may begin. Geotechnical design criteria and proper soil engineering procedures would be incorporated to ensure that problematic soils are accounted for and structures can withstand potential damage from liquefaction and/or lateral spreading. Geotechnical investigation reports would provide recommendations for grading and for foundation design to reduce hazards to people and structures arising from liquefaction and other seismic-related ground failure. In areas subject to seismic-induced ground failure, the condition may be addressed by removing and replacing the soils with compacted fill not susceptible to failure or the soil may be stabilized using a gelling agent before construction. In locations with high groundwater levels, dewatering may be required to ensure that the construction area is dry during foundation construction. Compliance with these standards and codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of grading permits, which would identify project-specific geotechnical hazards and specific design criteria that would be incorporated into individual project design plans. In addition to aspects of the existing regulatory framework and standard construction practices that would lessen potential impacts related to liquefaction, consistency with General Plan Policy S 1.3 that requires developments to mitigate geotechnical hazards in Hillside Management Areas through siting and development standards that would minimize the potential for liquefaction.

Projects in the Antelope Valley that would be facilitated by Draft 2045 CAP measures and actions, such as utility-scale solar power plants, would not be expected to be subject to liquefaction-related impacts because the water table in the region's public supply wells is reported to be at depths greater than 180 feet (City of Lancaster 2017).

Compliance with project-specific geotechnical design recommendations, applicable building code standards and other federal, state, and local requirements would ensure that projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. A less-than-significant impact would result.

Mitigation: None required.

Criterion a.iv) Whether the Project would directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides.

Impact 3.8-4: The Project would not directly or indirectly cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would cause potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides. Landslides are one of the various types of downslope movements (mass wasting) in which rock, soil, and other debris are displaced as a result of the effects of gravity. The potential for material to detach and move downslope depends on multiple factors, including the type of material, water content, and steepness of terrain. According to the EQ Zapp, several unincorporated areas in the County have the potential for earthquake-induced landslides (CGS 2021). Earthquake-induced landslides could occur in the unincorporated areas of the County, resulting in the potential for damage to new structures, service interruptions, and injuries to the public. Accordingly, projects facilitated by Draft 2045 CAP measures and actions would be subject to the impacts from earthquake-induced landslides if proposed in susceptible areas and, if so, could expose people and structures to the potentially damaging impacts from landslides.

However, as discussed above, all projects facilitating Draft 2045 CAP measures and actions would be required to comply with federal, state, and local laws, including the CBC and the County Building Code. Compliance with the applicable standards and codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of grading permits, which would identify project-specific geotechnical hazards and specific design criteria that would be incorporated into individual project design plans. Geotechnical design criteria would be incorporated into geotechnical investigations to verify the stability of nearby slopes and soils, and to provide recommendations to protect projects from causing or being affected by landslides. Consistency with General Plan goals and policies related to grading would also reduce the potential for any slope instability.

Compliance with project-specific geotechnical design recommendations and all applicable requirements and standards would ensure that new projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. A less-than-significant impact would result.

Mitigation: None required.

Criterion b) Whether the Project would result in substantial soil erosion or the loss of topsoil.

Impact 3.8-5: The Project would not result in substantial soil erosion or loss of topsoil.
(Less-than Significant Impact)

The Draft 2045 CAP is a policy document that does not include specific projects that would result in substantial soil erosion or loss of topsoil; it is intended to reduce Countywide GHG emissions and would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. Nonetheless, construction projects facilitated by Draft 2045 CAP measures and actions to decarbonize buildings and vehicles, such as large utility-scale energy projects developed in the Antelope Valley, could include large-scale earth-moving activities that could increase the risk of erosion or sediment transport as a result of clearing, excavation, grading, trenching, or soil stockpiling. The implementation of these and other projects facilitated by Draft 2045 CAP measures and actions (including any development on steep slopes) could create a significant impact related to erosion or sediment transport if construction activities went unregulated.

However, sufficient independently enforceable laws, regulations, plans, and standards are in place to assure that the impacts would be less than significant. To combat erosion and sedimentation caused by earth-moving activities, new projects facilitated by Draft 2045 CAP measures and actions that would disturb one or more acres are subject to the provisions of the *NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ (Construction General Permit), described in Section 3.11, *Hydrology and Water Quality*. Projects facilitated by Draft 2045 CAP measures and actions that would disturb less than one acre, but that would be part of a larger common plan of development disturbing one or more acres in total, also would be regulated under this permit. Projects facilitated by Draft 2045 CAP measures and actions that would disturb less than one acre would be regulated under the County's Municipal Separate Storm Sewer System Permit. These state requirements were developed to ensure that erosion from construction sites is controlled and monitored, as described below.

The Construction General Permit requires preparation and implementation of an SWPPP, which imposes BMPs to control stormwater run-on and runoff from construction work sites. Typical examples of erosion-related construction BMPs include the creation of physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, and protection of stockpiled materials. The SWPPP also requires the prevention of sediment loss from a work site being mobilized by wind through the required covering of inactive stockpiles from wind erosion. The list of BMPs to be implemented on any given construction site would be identified and developed by a qualified SWPPP professional (i.e., Qualified SWPPP Developer) to meet the performance standards in the Construction General Permit before the start of construction. The County's Municipal Separate Storm Sewer System Permit that would be applied to smaller (i.e., less than 1 acre) projects contains similar requirements to prevent erosion from water or wind. The implementation of BMPs in compliance with the Construction General Permit or the County's Municipal Separate

Storm Sewer System Permit would avoid or substantially reduce erosion from water or wind during construction. Similar to building code compliance, the Construction General Permit is a state requirement; all new projects facilitated by Draft 2045 CAP measures and actions would be subject to this requirement. Therefore, neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would not result in substantial soil erosion or loss of topsoil. This impact would be less than significant.

Mitigation: None required.

Criterion c) Whether the Project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Impact 3.8-6: The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The Draft 2045 CAP is intended to reduce Countywide GHG emissions and would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. Nonetheless, as discussed above, the EQ Zapp indicates that several areas within the unincorporated areas of the County are susceptible to unstable geologic or soils conditions. Figure 3.8-1, *Geologic Setting of Unincorporated Areas of Los Angeles County*, identifies areas known to be susceptible to liquefaction, lateral spreading, or landslides. Although possible without a seismic event, liquefaction, lateral spreading, or landslides are more commonly associated with seismic event, which are analyzed above under Impact 3.8-3 and Impact 3.8.4.

According to the interactive map on the USGS website that depicts areas of land subsidence in California, unincorporated areas within the County show evidence of land subsidence resulting from groundwater withdrawal (USGS 2021). Projects facilitated by Draft 2045 CAP measures and actions could cause an impact related to criterion c) if they would require dewatering during construction. Dewatering is a common technique used during construction to lower the water table when excavations are planned to be deeper than the existing water table. Dewatering involves removing or draining groundwater via various pumping methods. If excessive dewatering were to occur as a result of individual projects facilitated by Draft 2045 CAP measures and actions, it could exacerbate land subsidence in the region.

As discussed above, all new projects are required by law to comply with the CBC and the County Building Code. These codes contain provisions for soil preparation/conditioning to minimize hazards from unstable and expansive soils. Grading and soil compaction would also require the preparation of site-specific grading plans and soils and geology reports to address liquefaction, subsidence, and other potential geologic or soil stability issues. Such plans and geotechnical

investigation reports must be submitted for County review and approval before the start of on-site activities. Compliance with the applicable building codes would ensure that each new project has undergone a project-specific geotechnical investigation before the issuance of grading permits, which would identify project-specific geotechnical hazards and specific design criteria that would be incorporated into individual project design plans. Geotechnical design criteria are incorporated into geotechnical investigations to verify the stability of nearby slopes and soils, and to provide recommendations to protect projects from causing or being affected by liquefaction, lateral spreading, landslides, and subsidence. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by Draft 2045 CAP measures and actions would not cause substantial adverse impacts, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence. A less-than-significant impact would result.

Mitigation: None required.

Criterion d) Whether the Project would be located on expansive soil creating substantial direct or indirect risks to life or property.

Impact 3.8-7: The Project would not be located on expansive soil creating substantial direct or indirect risks to life or property. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would be located on expansive soil. The Draft 2045 CAP would be a policy document intended to reduce Countywide GHG emissions and would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. Nonetheless, projects facilitated by Draft 2045 CAP measures and actions could be proposed in such locations.

Expansive soils are soils that possess a “shrink-swell” characteristic. *Shrink-swell* is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. This property is measured using the coefficient of linear extensibility (COLE) (NRCS 2017). The U.S. Natural Resources Conservation Service (NRCS) relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent (COLE=0.03), shrinking and swelling may cause damage to buildings, roads, and other structures (NRCS 2017). NRCS Web Soil Survey data indicate that the soils in unincorporated areas of the County have highly variable linear extensibility ratings, with percentages ranging from 1.5 to 6.5, indicating linear extensibility ratings ranging from low to high. As a result, projects facilitated by Draft 2045 CAP measures and actions could be constructed on expansive soils and thereby could create a substantial risk to life or property if not properly regulated.

However, sufficient independently enforceable laws, regulations, plans, and standards are in place to assure that impacts would be less than significant. The CBC requires geotechnical investigations to include soil testing, which identify the presence of a variety of geotechnical constraints related to soil quality, including the expansion potential of the soil. As discussed

above, all new projects facilitated by Draft 2045 CAP measures and actions in the unincorporated areas of the County would be subject to the standards and requirements included in the CBC and County Building Code. Additionally, each new project facilitated by Draft 2045 CAP measures and actions would be subject to individual project review. Project-specific investigations would identify any potential geotechnical hazards (such as the presence of expansive soils) and each project would adhere to the specific geotechnical requirements, as required by law. Compliance with state and local laws governing new development in the unincorporated areas of the County would ensure that impacts of the Draft 2045 CAP and projects facilitated by Draft 2045 CAP measures and actions related to expansive soils would be less than significant.

Mitigation: None required.

Criterion e) Whether the Project would have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater.

Impact 3.8-8: The Project would not have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document intended to reduce unincorporated Countywide GHG emissions and would support development already allowed under the General Plan’s land use assumptions of the 2021–2029 Housing Element. Implementation of projects facilitated by Draft 2045 CAP measures and actions may generate wastewater. Individual projects that include structures may connect to existing sewer lines, on-site septic tanks, and/or alternative wastewater disposal systems (rare). In the event that a septic tank or alternative wastewater disposal system installation is proposed, a testing and permitting process would be completed before installation based on individual project-level review of projects facilitated by Draft 2045 CAP measures and actions.

The Web Soil Survey provides septic tank absorption field data to inform developers of the suitability of soil for supporting the use of septic tanks and other alternative wastewater treatment systems. Web Soil Survey data suggest that the suitability of the soils in the unincorporated areas of the County varies from not limited to very limited and may have one or more features that are unfavorable to septic tank usage. Any new projects facilitated by Draft 2045 CAP measures and actions that would include the utilization of a septic tank or alternative wastewater disposal system would be regulated by the Los Angeles County Department of Public Health and the Land Use Program of the Environmental Health Division.

Home and business property owners that want to install or replace an onsite wastewater treatment system must submit an application and the required documents listed on the application to go through the onsite wastewater treatment system review process. Obtaining a permit would be required before the construction of any septic tank or alternative wastewater disposal system, and each system would be constructed within the parameters of the SWRCB’s *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems*

(SWRCB 2012). System design approvals may be submitted to the County Building and Safety Department before building permits are obtained for proposed projects.

Because this procedure would be required before the construction of any and all septic tanks and alternative wastewater disposal systems, all projects facilitated by Draft 2045 CAP measures and actions would be subject to these state and local requirements. Proper soils are essential for installation and maintenance of septic tank and alternative wastewater disposal systems. Compliance with these state and local requirements would ensure that impacts of the Draft 2045 CAP and projects facilitated by Draft 2045 CAP measures and actions related to adequate soils for supporting such systems would be less than significant.

Mitigation: None required.

Criterion f) Whether the Project would conflict with the Hillside Management Area Ordinance (Los Angeles County Code, Title 22, Chapter 22.104).

Impact 3.8-9: The Project would not conflict with the Hillside Management Area Ordinance (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that could conflict with the Hillside Management Area Ordinance or its related Hillside Design Guidelines. The ordinance is a component of the General Plan and is designed to preserve significant natural features in hillside areas. HMAs are defined as areas with natural slopes of 25 percent or greater. Compliance with the Hillside Design Guidelines would be required prior to development in an HMA, unless exempted under provisions of the ordinance. In hillside areas with less than 25 percent slope, use of the Hillside Design Guidelines is optional but encouraged. These guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects to ensure that natural features in hillside areas are preserved. Projects facilitated by Draft 2045 CAP measures and actions could be proposed in HMA-designated areas. If so, then the new development would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project-specific basis. Requisite compliance with the ordinance would assure that new projects facilitated by Draft 2045 CAP measures and actions would not result in a significant impact.

Mitigation: None required.

3.8.2.4 Cumulative Impacts

Geologic and soils impacts are site specific, and therefore would not contribute to cumulative impacts. Cumulative impacts could result from the initiation of projects facilitated by Draft 2045 CAP measures and actions.

Cumulative impacts for thresholds criteria a) through f) are addressed under Impact 3.8-10.

Impact 3.8-10: The Project would result in less than significant cumulative impacts related to geology and soils. (*Less-than-Significant Cumulative Impact*)

Most of Southern California, including unincorporated areas of the County, is located in an area of a relatively high seismic activity. Cumulative impacts related to geology and soils would not result unless projects facilitated by the Draft 2045 CAP were developed in the same location as other closely-related past, present, and reasonably foreseeable future projects in such a way that their incremental impacts would combine with the incremental impacts of projects facilitated by the Draft 2045 CAP measures and actions to create geologic hazards, including unstable geologic conditions, or contribute substantially to erosion. All cumulative development in the Project area and adjacent cities would be subject to the CBC. Additionally, cumulative projects would be subject to the Alquist-Priolo Act, which restricts development on active fault traces. Because of the site-specific nature of geological conditions (e.g., soils, geological features, seismic features), geology and soils impacts are typically assessed on a project-by-project basis, rather than on a cumulative basis. Nonetheless, implementation of Draft 2045 CAP measures and actions has the potential to expose a greater number of people to seismic hazards. Future cumulative development facilitated by Draft 2045 CAP measures and actions and other reasonably foreseeable future projects located within the surrounding area would be subject to the same local, state, and federal regulations pertaining to geology and soils, including the CBC and County Building Code requirements (or city building code requirements, as appropriate). Therefore, The Project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact. cumulative impacts would be less than significant, and the Project's contribution would be less than cumulatively considerable.

Mitigation: None required.

3.9 Greenhouse Gas Emissions

This section identifies and evaluates issues related to greenhouse gas (GHG) emissions to determine whether the Project would result in a significant impact on the environment. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to GHG emissions request the EIR show how the Draft 2045 CAP addresses multiple types of GHGs (including methane and nitrous oxides) and identify available resources as including the Southern California Association of Governments' (SCAG's) Regional Climate Adaptation Framework, which consists of the *Southern California Climate Adaptation Planning Guide* (SCAG 2020a), Communication and Outreach Toolkit, Library of Model Policies, and *Senate Bill 379 Compliance Curriculum for Local Jurisdictions* (SCAG 2021).

3.9.1 Setting

3.9.1.1 Study Area

The relevant area of consideration for climate change and the analysis of GHG emissions is broad, given that worldwide emissions and their global impacts influence climate change. However, the study area for this analysis is guided by CEQA Guidelines Section 15064(d), which directs lead agencies to consider an “indirect physical change” only if that change is a reasonably foreseeable impact that may be caused by a project. Consistent with this direction and in a statewide context, the study area for this analysis of GHG emissions impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*.

3.9.1.2 Environmental Setting

Greenhouse Gases

Gases that trap heat in the atmosphere are called GHGs. The State of California defines GHGs as carbon dioxide (CO₂), methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons, and hydrofluorocarbons. The major concern with GHGs is that increases in their concentrations are causing global climate change. *Global climate change* refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Historical records indicate that global climate changes have occurred due to natural phenomena; however, current data increasingly indicate that the current global conditions differ from past climate changes in rate and magnitude. Global climate change attributable to anthropogenic (human) sources of GHG emissions is one of the most important and widely debated scientific, economic, and political issues in the United States and the world. The extent to

which increased concentrations of GHGs have caused or will cause climate change and the appropriate actions to limit and/or respond to climate change are the subject of significant and rapidly evolving regulatory efforts at the federal and state levels of government.

GHGs are compounds in the earth's atmosphere that play a critical role in determining temperature near the earth's surface. More specifically, these gases allow high-frequency shortwave solar radiation to enter the earth's atmosphere, but retain some of the low-frequency infrared energy, which is radiated back from the earth toward space, resulting in a warming of the atmosphere.

Not all GHGs possess the same ability to induce climate change; as a result, GHG contributions commonly are quantified in the units of equivalent mass of carbon dioxide (CO₂e). CO₂e emissions are calculated by applying the proper global warming potential (GWP) value to pollutant-specific emissions.¹ These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4) (IPCC 1995, 2007). Compounds that are regulated as GHGs are discussed below.

Carbon dioxide (CO₂) is the most abundant GHG in the atmosphere, with the primary anthropogenic source being fossil fuel combustion from stationary and mobile sources.

Methane is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, anaerobic decomposition of organic matter in landfills, manure management, and leaks in natural gas pipelines.

Nitrous oxide is produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production.

Hydrofluorocarbons are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems.

Perfluorocarbons are fluorinated compounds consisting of carbon and fluorine. They are created primarily as a byproduct of aluminum production and semiconductor manufacturing.

Sulfur hexafluoride is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity.

Effects of Global Climate Change

California is one of the most “climate-challenged” regions of North America (Overpeck et al. 2013). *Climate* is usually defined as “average weather” and generally is described in terms of the mean and variability of temperature, precipitation, and wind, and in California each of the last

¹ GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC) and published in its Second Assessment Report in 1996. Historically, GHG emissions inventories have been calculated using the GWPs from the IPCC's Second Assessment Report. The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The California Air Resources Board (CARB) reports GHG emissions inventories for California using the GWP values from the IPCC AR4. Therefore, this analysis uses the GWP values from IPCC AR4. Although the IPCC has released its Fifth Assessment Report with updated GWPs, CARB reports the statewide GHG inventory using the AR4 GWPs, which is consistent with international reporting standards.

three decades has been successively warmer than any preceding decade (OEHHA 2018). The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local impacts of climate change, occurrence, frequency, and magnitude of extreme weather events, impacts of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Nonetheless, the IPCC, in its *Sixth Assessment Report, Summary for Policy Makers*, stated that “widespread, pervasive impacts have resulted from observed increases in the frequency and intensity of climate and weather extremes” and that “these observed impacts have been attributed to human-induced climate change particularly through increased frequency and severity of extreme events” (IPCC 2021). Additionally, the Sixth Assessment Report estimated that “there is at least a greater than 50% likelihood that global warming will reach or exceed 1.5°C in the near-term (2021 to 2040)” (IPCC 2021).

California's Fourth Climate Change Assessment, published in 2018, finds that the potential impacts of global climate change on California include loss of snowpack; sea level rise; more extreme-heat days per year; more high-ozone days; more extreme forest fires; more severe droughts punctuated by extreme-precipitation events; increased erosion of California's coastlines and seawater intrusion into the Sacramento–San Joaquin Delta and associated levee systems; and increased pest infestation (OPR et al. 2018). Below is a summary of some of the impacts that could be experienced in California as a result of global warming and climate change.

Temperature and Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the impact and, therefore its indirect impacts, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which in turn would worsen air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (CalEPA 2013). However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. The South Coast region, a narrow band along the coast from Point Conception to the Mexican border, including the Los Angeles Basin and San Diego, has experienced the greatest warming among all the regions in California since 1895 (OEHHA 2018).

Heat events are projected to become more frequent and last longer. Since the 1980s, heat waves have become more humid, in part due to ocean warming, which prevents surfaces from cooling down at night, leading to higher nighttime temperatures. Southern California also has experienced the greatest nighttime extreme heat trends, at least two times greater than daytime trends, and it experiences the greatest increases in both daytime and nighttime heat extremes during late spring (April–June) (OEHHA 2018). Data suggest that the predicted future increase in temperatures resulting from climate change could potentially interfere with efforts to control and reduce ground-level ozone in the region.

According to the Cal-Adapt website’s “Local Climate Change Snapshot” database (Cal-Adapt 2023), Los Angeles County could see an average annual increase in maximum temperature to 76.7 to 77.6 degrees Fahrenheit (°F) in the mid-century (2035–2064) and 77.7 to 80.9°F at the end of the century (2070–2099) compared to 72.5°F for the baseline period (1961–1990). The average annual number of extreme heat days also could increase to 19–23 days in the mid-century (2035–2064) and 24–44 days at the end of the century (2070–2099) compared to 4 days for the baseline period (1961–1990).

Water Supply

California’s highly variable climate includes inconsistent precipitation with multi-year wet or dry periods, such as the unusually wet years of 2005, 2011, and 2017, as well as the droughts of 2001–2004, 2007–2010, 2012–2019, and 2021–present (NDMC 2023). More than other regions of the western United States, the presence or absence of these large storms within a given winter season determines California’s water resources because of their contribution to snowpack. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, a reduced snowpack coupled with increased rainfall during winters could lead to reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge (PISDES 2003).

In California, the spring snowpack runoff accounts for approximately 70 percent of the total water supply in the Colorado River Basin, which supplies approximately 55 percent of Southern California’s water. Since the 1950s, the snow water storage measurements on April 1 have declined by about 10 percent. Models predict that the mean snow water equivalent declines to less than two-thirds of its historical average by 2050, and by less than half by 2100. Unfortunately, the decline in the spring snowpack occurs even if precipitation amounts remains relatively stable; the snow loss results from a warmer climate (CNRA 2018). The loss of snowpack would reduce the amount of water available. According to the Cal-Adapt website’s “Local Climate Change Snapshot” database (Cal-Adapt 2023), Los Angeles County could see an average annual length of dry spells of 139–141 days in the mid-century (2035–2064) and 140–149 days at the end of the century (2070–2099), compared to 133 days for the baseline period (1961–1990). The average annual precipitation could decrease to 15.5 to 15.6 inches in the mid-century (2035–2064) and 15.6 to 15.9 inches at the end of the century (2070–2099), compared to 16.1 inches for the baseline period (1961–1990).

The California Department of Water Resources report on climate change and impacts on the State Water Project, Central Valley Project, and Sacramento–San Joaquin Delta concludes that “climate change will likely have a significant impact on California’s future water resources...[and] future water demand.” It also reports that “much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain” (PISDES 2003). It also reports that the relationship between climate change and its potential impact on water demand is not well understood, but “[i]t is unlikely that this level of uncertainty will

diminish significantly in the foreseeable future.” Recent measurements of the levees in the Sacramento–San Joaquin Delta found mean subsidence rates of about 0.4 to 0.8 inches per year. This subsidence compounds the risk that sea level rise and storms could cause overtopping or failure of the levees, which would expose natural gas pipelines and other infrastructure to damage or structural failure. At this rate of subsidence, the levees may fail to meet the federal levee height standard (1.5 feet freeboard above the 100-year food level) between 2050 and 2080, depending on the rate of sea level rise (CNRA 2018).

To enhance the long-term reliability of water supply, the Los Angeles Department of Water and Power’s 2015 Urban Water Management Plan (LADWP 2021) includes the following goals:

- Recycle 100 percent of wastewater by 2035.
- Source 70 percent of water locally by 2035.
- Reduce per capita potable water use by 25 percent by 2035.
- Reduce the Los Angeles Department of Water and Power’s purchase of imported water by 50 percent by 2025.

Hydrology and Sea Level Rise

The central and southern coast of California has experienced a sea level rise of more than 5.9 inches over the 20th century, and sea levels will continue to rise substantially over the 21st century. Sea level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm and melting of ice over land. Flooding from sea level rise and coastal wave events leads to bluff, cliff, and beach erosion, which could affect large geographic areas. Future modeling simulations estimate that 31–67 percent of Southern California beaches may become completely eroded to the landward limit of coastal infrastructure or cliffs by the end of the century, assuming sea level rise scenarios from 3 to 6.6 feet and limited human intervention (CNRA 2018). The rise in sea levels could jeopardize California’s water supply. Increased storm intensity and frequency could also affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has a \$50 billion agricultural industry that produces half the country’s fruits, vegetables, nuts, flowers, and nursery crops (California Department of Food and Agriculture 2020). Many of California’s important crops, including fruit and nut trees, are particularly vulnerable to climate change impacts like changing temperature regimes and water-induced stress. Under changing climate conditions, agriculture is projected to experience lower crop yields due to extreme heat waves, heat stress and increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats (CNRA 2018). Higher CO₂ levels can stimulate plant production and increase plant water use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop yield could be threatened by a less reliable water supply; and greater ozone pollution could render plants more susceptible to pest and disease outbreaks and interfere with plant growth. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thus affect their quality and quantity (California Climate Change Center 2006).

California historically has experienced multi-year droughts and has been able to support agricultural water demands through groundwater reserves, winter snowpack, reservoir storage, and conveyance of water throughout the state in canals. However, the higher temperatures that come with climate change will likely decrease snow storage and cause more frequent and severe droughts, and will require additional preparedness for more frequent surface water shortages and reliance on sustainable groundwater management (CNRA 2018).

Ecosystems

Changes in temperature, precipitation, food sources, competition for prey, and other physical or biological features of the habitat may force changes in the timing of key life-cycle events for plants and animals and shift the ranges where these plants and animals live (CNRA 2018). Range shifts have been observed in approximately 75 percent of small animal species and over 80 percent of bird species in the Sierra Nevada. High-elevation mammals moved upslope, while birds and low-elevation mammals moved downslope as frequently as upslope. The varied responses are a reflection of the species intrinsic sensitivity to temperature, precipitation, or other physical factors, such as changes in food sources, vegetation, and interactions with competitors. Additionally, range shifts have been noted in wintering bird species and time shifts of arriving species have been noted in butterflies and migratory birds. Furthermore, ocean acidification has affected many marine organisms and their food chain. Chinook salmon have been affected by climate change by both the number of adults returning to spawn and the increased mortality rate among juvenile salmon. Finally, during years of warmer sea temperature, California sea lions have had fewer birth rates, higher pup mortality, and increased numbers of pups having poor conditions (OEHHA 2018).

Wildfire

Wildfires in California over the past two decades are shown to be increasing in size, severity, and adverse impacts (CARB 2020). Warming temperature as a result of climate change influences the length of both the fire and growing seasons and consequently affects the amount of time and intensity fires burn at and the amount of available fuels. Higher temperatures lead to drought, which decreases the fuel moisture and increases the likelihood of ignitions (CARB 2020). According to the Cal-Adapt website's "Local Climate Change Snapshot" database (Cal-Adapt 2023), Los Angeles County could see an average annual area burned of approximately 13,993–14,133 acres in the mid-century (2035–2064) and 13,036–13,788 acres at the end of the century (2070–2099), compared to 12,159–12,235 acres for the baseline period (1961–1990). Increased wildfire activity leads to more GHG emissions from sources that would otherwise be carbon sinks (CARB 2020). Between 2000 and 2019, emissions from wildfires ranged from a low of 1.2 million metric tons of carbon dioxide equivalent (MMT_{CO₂e}) in 2010 to a high of 39 MMT_{CO₂e} in 2018, with an annual average of 14 MMT_{CO₂e}. Further, the California Air Resources Board (CARB) estimates that wildfire emissions increased dramatically in 2020, totaling 112 MMT_{CO₂e} (CARB 2020).

Humans

Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Temperature increases cause heat-

related deaths and illnesses. In 2006, reported heat-related deaths and illness were much higher than in any other year because of a prolonged heat wave (OEHHA 2018). Nineteen heat-related events that had significant impacts on human health occurred from 1999 to 2009, resulting in about 11,000 excess hospitalizations (CNRA 2018). Additionally, indicators of the impacts of climate change on human health show that warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California.

Global and National Emissions

Worldwide human-caused emissions of GHGs were approximately 37,990 MMTCO₂e in 2021, including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation) (Crippa et al. 2022). Emissions of CO₂ from fossil fuel use and industrial processes account for 65 percent of the total, while CO₂ emissions from all sources account for 76 percent of the total GHG emissions. In 2021, the United States was the world's second largest emitter of carbon dioxide, at 4,800 million metric tons (MMT) (China was the largest emitter of carbon dioxide, at 12,500 MMT) (Crippa et al. 2022).

Statewide Greenhouse Gas Emissions

CARB compiles GHG inventories for the State of California. Based on the year-2020 GHG inventory data (the latest year for which data are available), California emitted 369.2 MMTCO₂e, which includes emissions resulting from imported electrical power (CARB 2022a). In 2020, California emitted approximately 35.3 MMTCO₂e less GHG emissions than in 2019, and emissions have been on a declining trend since 2007.² The state's population and economic activities increased substantially between 1990 and 2020. Despite the population and economic growth, California's net GHG emissions fell by approximately 3.5 percent. According to CARB, in 2014, statewide GHG emissions dropped below the 2020 GHG limit and have remained below the limit since that time (CARB 2022b).

Table 3.9-1, *State of California Greenhouse Gas Emissions*, identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2020. As shown, the transportation sector is the largest contributor to statewide GHG emissions, at approximately 38 percent in 2020 (CARB 2022a). California GHG emissions for 2019 are also provided to show pre-COVID-19 pandemic emission levels, which were also below 1990 levels.

² The 2019 to 2020 decrease in emissions is likely attributable in large part to the impacts of the COVID-19 pandemic. Economic recovery from the pandemic may result in emissions increases over the next few years. Therefore, the total 2020 reported emissions are likely an anomaly, and any near-term increases in annual emissions should be considered in the context of the pandemic. Between 2018 and 2019, GHG emissions decreased by 6.9 MMTCO₂e, much less than the 35.3 MMTCO₂e decrease that occurred between 2019 and 2020.

**TABLE 3.9-1
 STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS**

| Category | Total 1990 Emissions using IPCC SAR (MMTCO ₂ e) | Percent of Total 1990 Emissions | Total 2019 Emissions using IPCC AR4 (MMTCO ₂ e)* | Percent of Total 2019 Emissions* | Total 2020 Emissions using IPCC AR4 (MMTCO ₂ e)* | Percent of Total 2020 Emissions* |
|---|--|---------------------------------|---|----------------------------------|---|----------------------------------|
| Transportation | 150.7 | 35 percent | 166.1 | 39.7 percent | 135.8 | 36.7 percent |
| Electric Power | 110.6 | 26 percent | 58.8 | 14.1 percent | 59.5 | 16.1 percent |
| Commercial | 14.4 | 3 percent | 15.9 | 3.8 percent | 13.4 | 3.6 percent |
| Residential | 29.7 | 7 percent | 28.0 | 6.7 percent | 25.3 | 6.8 percent |
| Industrial | 103.0 | 24 percent | 88.2 | 21.1 percent | 73.3 | 19.8 percent |
| Recycling and Waste ^a | -- | -- | 8.9 | 2.1 percent | 8.9 | 2.4 percent |
| High GWP/Non-Specified ^b | 1.3 | <1 percent | 20.6 | 4.9 percent | 21.3 | 5.8 percent |
| Agriculture/Forestry | 23.6 | 6 percent | 31.8 | 7.6 percent | 31.6 | 8.6 percent |
| Forestry Sinks | -6.7 | -- | -- ^c | -- | -- ^c | -- |
| Net Total (IPCC SAR) | 426.6 | 100 percent | -- | -- | -- | -- |
| Net Total (IPCC AR4)^d | 431 | 100 percent | 418.2 | 100 percent | 369.2 | 100 percent |

NOTES:

AR4 = Fourth Assessment Report; GWP = global warming potential; IPCC = Intergovernmental Panel on Climate Change; MMTCO₂e = million metric tons of carbon dioxide equivalent; SAR = Second Assessment Report

2019 data is more representative of state activity than 2020 due to the COVID-19 pandemic.

* Totals may not add up exactly due to rounding.

^a Included in other categories for the 1990 emissions inventory.

^b High-GWP gases are not specifically called out in the 1990 emissions inventory.

^c Revised methodology under development (not reported for 2018).

^d The California Air Resources Board revised the state's 1990 level greenhouse gas emissions under GWPs from the IPCC AR4.

SOURCE: CARB 2021a, 2022a.

Unincorporated County 2015 Baseline Emissions

The County utilized the 2015 baseline GHG inventory based on the data available when the inventory was prepared for *OurCounty: Los Angeles Countywide Sustainability Plan* (OurCounty Sustainability Plan). The use of a different baseline year would not alter the findings or impact analysis of the Draft 2045 CAP because the GHG reduction targets are based on a percent below some identified baseline year. For instance, the use of a baseline year of 2018 would result in a proportionately adjusted GHG reduction percentage target depending on the relative difference in the County's GHG emissions inventory in 2018 compared to 2015. Therefore, use of a 2015 baseline year is appropriate and technically sound, and constitutes a reasoned approach, as year 2015 data is readily available. As shown in **Table 3.9-2, Baseline County Greenhouse Gas Inventory**, the Draft 2045 CAP estimates the unincorporated County's baseline GHG emissions in the year 2015 to be approximately 5.5 MMTCO₂e. Of this, the largest contributing sector is transportation (51.3 percent); followed by stationary energy (34.5 percent); solid waste (8.5 percent); industrial processes and product use (4.6 percent); and agriculture, forestry, and other land uses (1.1 percent).

**TABLE 3.9-2
 BASELINE COUNTY GREENHOUSE GAS INVENTORY**

| Emissions Sector | Emissions (MTCO₂e) 2015 |
|-------------------------|---|
| Stationary Energy | 1,908,637 |
| Transportation | 2,838,133 |
| Waste | 469,997 |
| IPPU | 253,529 |
| AFOLU | 60,860 |
| Total | 5,531,155 |

NOTES:

AFOLU = agriculture, forestry, and other land use; BAU = business-as-usual; IPPU = industrial processes and product use; MTCO₂e = metric tons of carbon dioxide equivalent

SOURCE: Draft 2045 CAP, Appendix A

3.9.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

The federal government is extensively engaged in international climate change activities in areas such as science, mitigation, and environmental monitoring. The U.S. Environmental Protection Agency (USEPA) actively participates in multilateral and bilateral activities by establishing partnerships and providing leadership and technical expertise. Multilaterally, the United States has historically been a strong supporter of activities under the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change, or IPCC. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The IPCC’s most recent reports (<https://www.ipcc.ch/>) have emphasized the scientific consensus around the evidence that measurable changes to the climate are occurring because of human activity.³

USEPA is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public/private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG emissions reductions. USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the Energy Star labeling system for energy-efficient products) encourage voluntary reductions by large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

On September 15, 2009, USEPA and the National Highway Traffic Safety Administration (NHTSA) announced a proposed joint rule that would explicitly tie fuel economy to GHG emissions reductions requirements. In April 2020, USEPA and NHTSA amended the Corporate

³ Although many of these programs do not directly relate to California, they are nonetheless relevant as regulatory means of reducing the global impact of GHGs, which is by definition an issue of global, cumulative concern.

Average Fuel Economy (CAFE) and GHG emissions standards for passenger cars and light trucks and established new, more stringent standards covering model years 2021–2026 (Part Two of the Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). The CAFE and CO₂ emissions standards increase in stringency by 1.5 percent per year from model year 2020 levels over model years 2021–2026.

On May 27, 2020, California, 22 other states, and the District of Columbia filed a petition for review of the final rule. On April 22, 2021, NHTSA proposed to formally roll back portions of the SAFE Vehicles Rule, thereby restoring California’s right to set more stringent fuel efficiency standards. NHTSA is also planning to issue a new rule to increase the national fuel economy standard for light-duty vehicles beyond those in Part Two of the SAFE Vehicles Rule (NHTSA 2021).

Moreover, on August 5, 2021, President Joe Biden signed an executive order that targets making half of all new vehicles sold in 2030 zero-emission vehicles (ZEVs), including battery electric, plug-in hybrid electric, or fuel cell electric vehicles (White House Briefing Room 2021a). More recently proposed federal standards for motor vehicle tailpipe emissions include:

- *Revocation of the SAFE Vehicles Rule:* On March 14, 2022, USEPA published its Notice of Decision to restore California’s waiver, which allows California to set more stringent vehicle fuel efficiency standards, rescinding the SAFE Vehicles Rule (Federal Register Volume 87, Page 14332).
- *Issuance of the Revised 2023 and Later Model Year Light-Duty Vehicle GHG Emissions Standards:* The issuance of these standards revises the GHG emissions standards for vehicles from model years 2023–2026 and establishes the most stringent GHG emissions standards ever set for the light-duty-vehicle sector. These standards are expected to result in average fuel economy label values of 40 miles per gallon, while the standards they replace (the SAFE rule standards) would achieve only 32 miles per gallon in model year 2026 vehicles (USEPA 2021).

In September 2009, USEPA finalized a GHG reporting and monitoring system that began on January 1, 2010. In general, this national reporting requirement provides USEPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons (MT) or more of CO₂ per year. This new program covers approximately 85 percent of the nation's GHG emissions and applies to approximately 10,000 facilities.

At the Paris UNFCCC climate conference in December 2015 (“Paris Accord”), the United States set its intended nationally determined contribution to reduce its GHG emissions by 26–28 percent below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28 percent. These targets were set with the goal of limiting global temperature rise to below 2 degrees Celsius and getting to the 80 percent emissions reduction by 2050 (UNFCCC 2017). On June 1, 2017, President Donald Trump withdrew the United States from the Paris Accord. However, on January 20, 2021, President Biden accepted the Paris Agreement (December 12, 2015) on behalf of the United States (White House Briefing Room 2021b).

To further the aims of environmental protections that were reversed under President Trump, President Biden signed EO 13990 on January 20, 2021 (White House Briefing Room 2021c), stating the Administration’s intent to improve public health, limit exposure to dangerous chemicals, reduce pollution, prioritize environmental justice, and reduce GHG emissions.

During the Leaders Summit on Climate in April 2021, President Biden fulfilled his promise to rejoin the Paris Agreement and set a course for the United States to tackle the climate crisis at home and abroad, reaching net zero emissions economy-wide by no later than 2050. Additionally, as part of reentering the Paris Agreement, the United States established a new 2030 GHG emissions target, known as the “nationally determined contribution,” which is a formal submission to the UNFCCC. The United States’ nationally determined contribution target aims for a 50–52 percent reduction in GHG emissions from 2005 levels by 2030 (White House Briefing Room 2021d). To achieve these goals, the United States has committed to all of the following actions:

- Achieve 100 percent carbon pollution-free electricity by 2035.
- Support efficiency upgrades and electrification in buildings.
- Reduce carbon pollution from the transportation sector.
- Reduce emissions from forests and agriculture and enhance carbon sinks.
- Address carbon pollution from industrial process.
- Reduce non-CO₂ GHGs, including methane, hydrofluorocarbons, and other potent short-lived climate pollutants.
- Invest in innovation of affordable, reliable, and resilient clean technologies and infrastructure.

At the 26th Conference of Parties (COP26) held in Glasgow, the United States and 190 other countries reiterated their pledge to the Paris Agreement and formed a global pact to limit global warming to less than 1.5 degrees Celsius. As part of the pledge, the United States and China, the world’s two largest GHG emitters, committed to a joint declaration to collaborate on limiting global warming to the 1.5 degrees Celsius threshold through reducing methane emissions, phasing down coal as an energy source, increasing renewable energy generation, and decarbonization. COP26 also saw the United States and 100 other countries sign a Global Methane Pledge in an effort to reduce methane emissions domestically and worldwide. President Biden also announced the launch of the President’s Emergency Plan for Adaptation and Resilience (PREPARE), which serves as a guide for the United States’ response to global climate crises (White House Briefing Room 2021a).

Federal Clean Air Act

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that USEPA has statutory authority under Section 202 of the federal Clean Air Act to regulate GHGs. The court did not hold that USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section

202(a) of the Clean Air Act. USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Clean Air Act Section 202(a)(1) consistently with the U.S. Supreme Court decision. USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (Clean Air Act Section 211[c][4][B]) facilitates the reduction of national GHG emissions by requiring the following actions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- Require approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; and require approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020.
- While superseded by the USEPA and NHTSA actions described above, (i) establish miles-per-gallon targets for cars and light trucks and (ii) direct NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of the Energy Independence and Security Act address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.⁴

State Laws, Regulations, and Policies

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the state.

Executive Order S-1-07

EO S-1-07 proclaims that the transportation sector is California's main source of GHG emissions, generating more than 40 percent of statewide emissions. It established a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020. This order also

⁴ A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

directed CARB to determine whether the Low Carbon Fuel Standard could be adopted as a discrete early-action measure, as part of the effort to meet AB 32 mandates.

Executive Order S-3-05

EO S-3-05 set forth the following targets for progressively reducing statewide GHG emissions (Office of the Governor of California 2005):

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The executive order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is also mandating that biannual reports be submitted to the California Governor and Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in EO S-3-05. The most recent 2020 State Agency Greenhouse Gas Reduction Report Card documents the effectiveness of measures to reduce GHG emissions in California and GHG emissions from state agencies' operations (CalEPA 2020). This report card documents reductions of 76 MMTCO_{2e} that occurred in 2019. In 2016, GHG emissions were 429 MMTCO_{2e},⁵ showing that California reached its 2020 emissions target (431 MMTCO_{2e}) four years early, and emissions are continuing to decline.

Executive Order B-30-15

In 2015, EO B-30-15 promulgated the following targets and measures (Office of the Governor of California 2015):

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Executive Order B-55-18

EO B-55-18 was signed by Governor Edmund G. Brown Jr. on September 10, 2018 (Office of the Governor of California 2018). The order establishes an additional statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per EO B-55-18, CARB is directed to work with relevant state agencies to develop a framework for

⁵ According to the 2016 GHG Inventory. Available: https://ww3.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-18.pdf, accessed December 2021.

implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Assembly Bill 32

In 2006, the California Legislature adopted Assembly Bill (AB) 32 (Health and Safety Code Division 25.5), also known as the California Global Warming Solutions Act of 2006, with a focus on reducing GHG emissions in California to 1990 levels by 2020. This act defines GHGs as CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. The California Global Warming Solutions Act assigned CARB the primary responsibility for reducing GHG emissions, by adopting rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

As required by the California Global Warming Solutions Act, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020, originally set at 427 MMTCO₂e, using the GWP values from the IPCC Second Assessment Report. CARB established the GHG emissions reduction target based on GWP values from the IPCC Fourth Assessment Report (AR4) and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO₂e.

CARB approved the initial AB 32 Scoping Plan in 2008 (CARB 2008). It approved the *First Update to the Climate Change Scoping Plan* (2014 Scoping Plan) in May 2014 and built upon the 2008 Scoping Plan with new strategies and recommendations (CARB 2014a). In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO₂e. CARB also updated the state's 2020 business-as-usual (BAU) emissions estimate to account for the impact of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were adopted for motor vehicles and renewable energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 MMTCO₂e.

Therefore, under the 2014 Scoping Plan, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO₂e would be 78.4 MMTCO₂e, or a reduction of GHG emissions by approximately 15.4 percent.

Senate Bill 32 and Assembly Bill 197

In 2016, the California Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197. SB 32 and AB 197 amended Health and Safety Code Division 25.5, and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, with provisions included to ensure that the benefits of state climate policies reach into vulnerable communities. In response to the 2030 GHG reduction target, CARB adopted the 2017 Scoping Plan (CARB 2017). The 2017 Scoping Plan outlines the strategies the state will implement to achieve the 2030 GHG emissions reduction target, which build on the Cap-and-Trade Program; the Low Carbon

Fuel Standard; improved vehicle, truck, and freight movement emissions standards; increasing renewable energy; and strategies to reduce methane emissions from agricultural and other wastes by using it to meet California’s energy needs. CARB’s projected statewide 2030 emissions take into account 2020 GHG reduction policies and programs. The 2017 Scoping Plan also comprehensively addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The adopted 2017 Scoping Plan includes ongoing and statutorily required programs and the continuation of the Cap-and-Trade Program. This Scoping Plan Scenario was modified from the January 2017 Proposed Scoping Plan to reflect AB 398,⁶ including removal of the 20 percent refinery measure.

The 2017 Scoping Plan outlines the strategies the State of California will implement to achieve the 2030 GHG emissions reduction target. The 2017 Scoping Plan includes the Scoping Plan Scenario, which CARB stated “is the best choice to achieve the state’s climate and clean air goals” (CARB 2017). Under the Scoping Plan Scenario, continuation of the Cap-and-Trade regulation (or carbon tax) is expected to cover approximately 34–79 MMTCO₂ of the 2030 reduction obligation (CARB 2017). The short-lived GHG strategy is expected to cover approximately 17–35 MMTCO_{2e}. The Renewables Portfolio Standard with 50 percent renewable electricity by 2030 is expected to cover approximately 3 MMTCO₂. The mobile-source strategy and sustainable freight action plan includes maintaining the existing vehicle GHG emissions standards, increasing the number of ZEVs, and improving the efficiency of the freight system, and is expected to cover approximately 11–13 MMTCO₂. Under the Scoping Plan Scenario, CARB expects that the doubling of the energy efficiency savings by 2030 would cover approximately 7–9 MMTCO₂ of the 2030 reduction obligation. The other strategies would be expected to cover the remaining 2030 reduction obligations.

The 2017 Scoping Plan also discusses the role of local governments in meeting the state’s GHG reductions goals because local governments have jurisdiction and land use authority related to community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations. Furthermore, local governments may have the ability to incentivize renewable energy, energy efficiency, and water efficiency measures (CARB 2017). The 2017 Scoping Plan encourages local governments to adopt climate action plans (CAPs) to address local GHG emissions sources. A summary of the GHG emissions reductions required under SB 32 is provided in **Table 3.9-3, *Estimated Greenhouse Gas Emissions Reductions Required by SB 32***.

⁶ AB 398 was enacted in 2017 to extend and clarify the role of the State’s Cap-and-Trade Program through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

**TABLE 3.9-3
 ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTIONS REQUIRED BY SB 32^a**

| Emissions Category | GHG Emissions (MMTCO ₂ e) |
|---|--------------------------------------|
| 2017 Scoping Plan Update | |
| 2030 No Action Taken Forecast (“Reference Scenario,” which includes 2020 GHG emissions reduction policies and programs) | 389 |
| 2030 Emissions Target Set by SB 32 (i.e., 40 percent below 1990 level) | 260 |
| Reduction below No Action Taken Forecast Necessary to Achieve 40 Percent below 1990 Level by 2030 | 129 (33.2 percent) ^a |

NOTES: GHG = greenhouse gas; MMTCO₂e = million metric tons of carbon dioxide equivalent; SB = Senate Bill

^a 389 – 260 = 129 / 389 = 33.2%

SOURCE: CARB 2017

Assembly Bill 1279 and 2022 Scoping Plan

The Legislature enacted AB 1279, The California Climate Crisis Act, on September 16, 2022. AB 1279 establishes the policy of the State of California to achieve net zero GHG emissions as soon as possible but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels. SB 1279 also requires CARB to ensure that the Scoping Plan identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for CO₂ removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report on progress in achieving the Scoping Plan’s goals.

The *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), adopted by CARB in December 2022, expands on prior scoping plans. This plan responds to more recent legislation, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state’s climate target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045 and achieving carbon neutrality⁷ by 2045 or earlier (CARB 2022c). The 2022 Scoping Plan outlines the strategies the state will implement to achieve carbon neutrality by reducing GHG emissions to meet the anthropogenic target, and by expanding actions to capture and store carbon through the state’s natural and working lands and using a variety of mechanical approaches.

The major element of the 2022 Scoping Plan is the decarbonization of every sector of the economy. This effort requires the following key actions:

- Rapidly move to zero-emissions transportation for cars, buses, trains, and trucks.
- Phase out the use of fossil-fuel gas for heating.

⁷ *Carbon neutrality* means “net zero” emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of CO₂ that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology “net zero” and the 2022 Scoping Plan uses the terminology “carbon neutrality” or “carbon neutral.” For purposes of the Draft 2045 CAP and this EIR, these terms mean the same thing and are used interchangeably.

- Clamp down on chemicals and refrigerants.
- Provide communities with sustainable options such as walking, biking, and public transit to reduce reliance on cars.
- Continue to build out solar arrays, wind turbine capacity, and other resources to provide clean, renewable energy to displace fossil-fuel–fired electrical generation.
- Scale up new options such as renewable hydrogen for hard-to-electrify end uses and biomethane where needed.

Despite these efforts, some amount of residual emissions will remain from hard-to-abate industries such as cement, internal combustion vehicles still on the road, and other GHG emissions sources, including high-GWP chemicals used as refrigerants (CARB 2022c). The 2022 Scoping Plan addresses the remaining emissions by re-envisioning natural and working lands (such as forests, shrublands/chaparral, croplands, and wetlands) to ensure that they incorporate and store as much carbon as possible. However, the modeling for the 2022 Scoping Plan indicates that natural and working lands, on their own, will not provide enough sequestration and storage to address all residual emissions. Therefore, it will be necessary to research, develop, and deploy additional methods of capturing CO₂ that include pulling it from smokestacks of facilities, or drawing it out of the atmosphere itself and then safely and permanently utilizing and storing it (CARB 2022c).

The 2022 Scoping Plan shows that the state must take unprecedented and substantial action to achieve its climate goals, far beyond anything CARB has considered in prior scoping plans. In CARB’s own words, the 2022 Scoping Plan “is the most comprehensive and far-reaching Scoping Plan developed to date” and “[m]odeling for this Scoping Plan shows that this decade must be one of transformation on a scale never seen before to set us up for success in 2045” (CARB 2022a).

The 2022 Scoping Plan includes the Scoping Plan Scenario, which “builds on and integrates efforts already underway to reduce the state’s GHG, criteria pollutant, and toxic air contaminant emissions by identifying the clean technologies and fuels that should be phased in as the state transitions away from combustion of fossil fuels” (CARB 2022c). The 2022 Scoping Plan approaches decarbonization from two perspectives: (1) managing a phasedown of existing energy sources and technology and (2) ramping up, developing, and deploying alternative clean energy sources and technology over time (CARB 2022c). Under the Scoping Plan Scenario, the demand for liquid petroleum will decrease by 94 percent and total fossil fuels by 86 percent in 2045 relative to 2022 (CARB 2022c).

Additionally, carbon removal will be necessary to achieve net negative emissions to address historical GHGs already in the atmosphere (CARB 2022c). The 2022 Scoping Plan does not specify how the residual emissions will be removed, as this will require the development of new CCS and DAC technologies, which will require governmental or other incentive support to overcome technology and market barriers (CARB 2022c).

The 2022 Scoping Plan also discusses the role of local governments in meeting the state’s GHG emissions reduction goals because local governments have jurisdiction and land use authority related to community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations. The efforts of local governments to reduce GHG emissions within their jurisdictions are critical to achieving the state’s long-term climate goals. Furthermore, local governments make critical decisions on how and when to deploy transportation infrastructure and can choose to support transit, walking, bicycling, and neighborhoods that allow people to transition away from cars; they can adopt building ordinances that exceed statewide building code requirements; and they play a critical role in facilitating the rollout of ZEV infrastructure (CARB 2022d). The 2022 Scoping Plan encourages local governments to take ambitious, coordinated climate actions at the community scale—actions that are consistent with and supportive of the state’s climate goals (CARB 2022d). These actions could include:

- Develop local CAPs and strategies consistent with the state’s GHG emissions reduction goals.
- Incorporate state-level GHG emissions priorities into local governments’ processes for approving land use and individual plans and individual projects.
- Implement CEQA mitigation, as needed, to reduce GHG emissions associated with new land use development projects.
- Leverage opportunities for regional collaboration.

The Draft 2045 CAP is consistent with CARB’s recommendation for local governments contained in the 2022 Scoping Plan, as demonstrated in Table H-1 of Appendix H of the Draft 2045 CAP.

Senate Bill 97 (Dutton)

SB 97, enacted in 2007, directed the Governor’s Office of Planning and Research (OPR) to develop CEQA guidelines “for the mitigation of GHG emissions or the effects of GHG emissions.” In December 2009, OPR adopted amendments to the CEQA Guidelines Appendix G Environmental Checklist. These amendments created a new resource section for GHG emissions and suggested criteria that may be used to establish significance of GHG emissions (California Code of Regulations Title 14, Section 15064.4 [14 CCR Section 15064.4]). However, neither a quantitative threshold of significance nor any specific mitigation measures is included. As amended, the CEQA Guidelines require a lead agency to make a good-faith effort, based on scientific and factual data to the extent possible, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The CEQA Guidelines give discretion to the lead agency to choose whether to: (1) quantify GHG emissions resulting from a project; and/or (2) rely on a qualitative analysis or performance-based standards. Furthermore, the CEQA Guidelines identify three factors to be considered in the evaluation of the significance of GHG emissions:

- (1) The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting.

- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The administrative record for the CEQA Guidelines amendments also clarifies “that the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of California Environmental Quality Act’s requirements for cumulative impact analysis” (OPR 2008).

Senate Bill 375

The Legislature enacted SB 375 in 2008. SB 375 provides for a planning process to coordinate land use planning and regional transportation plans (RTPs) to help California meet the GHG emissions reductions established in AB 32. SB 375 requires RTPs prepared by metropolitan planning organizations (MPOs) to incorporate a sustainable communities strategy (SCS) in their RTPs that demonstrates how the region would achieve GHG emission reduction targets set by CARB. Under SB 375, CARB is required, in consultation with the state’s MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. The proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and Low Carbon Fuel Standard regulations.

In 2011, CARB adopted GHG emissions reduction targets for SCAG, the MPO that includes Los Angeles County. In 2018, CARB updated the SB 375 targets to require an 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per-capita passenger vehicle GHG emissions.

Senate Bill 905, Carbon Capture Removal, Utilization, and Storage Program

The Legislature enacted SB 905 on September 16, 2022. SB 905 requires CARB to establish the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, and sequestration (CCUS) and CDR projects and technology. On or before January 1, 2025, CARB must adopt regulations that create a unified permitting application to expedite the permitting process and other authorizations for the construction and operation of CCUS and CDR projects. SB 905 authorizes CARB to develop a centralized database to track the deployment of CCUS and CDR technologies and projects. Additionally, SB 905 requires the Secretary of the CNRA to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project.

Senate Bill 1137, Oil and Gas Operations; Location Restrictions; Notice of Intention; Health Protection Zone; Sensitive Receptors

SB 1137 of 2022 prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. The law requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake specified monitoring, public notice, and nuisance requirements. Additionally, SB 1137 requires CARB to consult and concur with the California Geologic Energy Management Division on leak detection and repair plans for these facilities; adopt regulations as

necessary to implement standards for emissions detection systems; and collaborate with the California Geologic Energy Management Division on public access to emissions detection data.

Assembly Bill 1757, California Global Solutions Act of 2006; Climate Goal; Natural and Working Lands

AB 1757 of 2022 requires the CNRA, by January 1, 2024—acting in collaboration with CARB, CalEPA, the California Department of Food and Agriculture, and an expert advisory committee—to set targets for natural carbon sequestration and nature-based climate solutions for 2030, 2038, and 2045. The targets must be integrated into the Scoping Plan and other state policies. CARB must ensure that double-counting of emissions reductions is avoided. Emissions reduction projects and actions that receive state funding will not be eligible to generate credits under any market-based compliance mechanism. CARB, by January 1, 2025, must develop standard methods for state agencies to track GHG emissions and reductions, carbon sequestration, and, where feasible, additional benefits from natural and working lands over time. The CNRA, by January 1, 2025—acting in collaboration with CARB, CalEPA, and the California Department of Food and Agriculture—must review and update the Climate Smart Strategy to achieve the targets, and must post data on its website on progress made toward targets, including on state expenditures made to implement the targets.

Senate Bill 1206, Hydrofluorocarbon Gases; Sale or Distribution

SB 1206 of 2022 prohibits the sale or distribution of bulk HFC gases or bulk blends containing HFCs that exceed 2,200 GWP in 2025, 1,400 GWP in 2030, and 750 GWP in 2033, unless the HFCs are reclaimed or for use in medical metered-dose inhalers. SB 1206 also requires the state to use reclaimed refrigerant with a GWP greater than 750 to service existing equipment owned/operated by the state, starting in 2025. Additionally, SB 1206 requires CARB to initiate a rulemaking requiring low- and ultra-low-GWP alternatives to HFCs in all sectors where it is practicable for entities in the sector to comply with the requirement.

Senate Bill 27, Carbon Sequestration; State Goals; Natural and Working Lands; Registry of Projects

SB 27 of 2021 requires the CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. SB 27 also requires CARB to establish specified CO₂ removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, the CNRA must establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding. The CNRA also must track carbon removal and GHG emissions reduction benefits derived from projects funded through the registry. This law is reflected in the 2022 Scoping Plan as CO₂ removal and carbon capture targets of 20 MMTCO₂e by 2030 and 100 MMTCO₂e by 2045 in support of carbon neutrality.

Senate Bill 596, Greenhouse Gases; Cement Sector; Net-zero Emissions Strategy

SB 596 of 2022 requires CARB to develop a comprehensive strategy for the state's cement sector by July 1, 2023, to achieve net zero GHG emissions associated with the use of cement in the state as soon as possible, but no later than December 31, 2045. The law establishes an interim target of

40 percent below the 2019 average GHG intensity of cement by December 31, 2035. Under SB 596, CARB must take all of the following actions:

- Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions.
- Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028.
- Coordinate and consult with other state agencies.
- Prioritize actions that leverage state and federal incentives.
- Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity.

Transportation Sector

In response to the transportation sector accounting for a large percentage of California’s CO₂ emissions, AB 1493 (Health and Safety Code Sections 42823 and 43018.5) (also referred to as the *Pavley standards*), was enacted on July 22, 2002, and requires CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles whose primary use is noncommercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers.

The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emissions standards; however, California is allowed to set its own standards with a federal Clean Air Act waiver from USEPA. In August 2012, USEPA and the U.S. Department of Transportation adopted GHG emissions standards for model year 2017–2025 vehicles, which corresponds to the state’s Pavley standards; however, these standards were rescinded and replaced under the federal SAFE Vehicles Rule. As mentioned above, California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020. Also, on January 20, 2021, President Biden signed EO 13990, directing the government to revise fuel economy standards with the goal of further reducing emissions. On April 22, 2021, NHTSA proposed to formally roll back portions of the SAFE Vehicles Rule, thereby restoring California’s right to set more stringent fuel efficiency standards. On August 5, 2021, President Joe Biden signed an executive order that establishes a goal that half of all new vehicles sold in 2030 be ZEVs, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles. Additionally, on March 14, 2022, USEPA published its Notice of Decision to restore California’s waiver, which allows California to set more stringent vehicle fuel efficiency standards, rescinding the SAFE Vehicles Rule (Federal Register Volume 87, page 14332). On December 30, 2021, USEPA issued the Revised 2023 and Later Model Year Light Duty Vehicle GHG Emissions Standards, which revises the GHG emissions standards for model years 2023–2026 and establishes the most stringent GHG standards to date for the light-duty vehicle sector. See Section 3.7, *Energy*, of this Recirculated Draft EIR for additional details.

In January 2007, Governor Brown signed EO S-01-07, which mandates the following actions: (1) establish a statewide goal to reduce the carbon intensity of California’s transportation fuels by

at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard for transportation fuels in California. CARB identified the Low Carbon Fuel Standard as one of the nine discrete early actions in the Climate Change Scoping Plan. In 2018, CARB amended the Low Carbon Fuel Standard to strengthen and smooth the carbon intensity benchmarks through 2030 in line with California’s 2030 GHG emissions reduction target enacted through SB 32.

CARB is responsible for the coordination and administration of both federal and state air pollution control programs in California. Some of the regulations and measures that CARB has adopted to reduce particulate matter, nitrogen oxides, and other emissions have the co-benefits of reducing GHG emissions. Regulations and measures include:

- In 2012, CARB approved the Advanced Clean Cars Program (CARB 2021), which includes low-emission-vehicle regulations that reduce criteria pollutant and GHG emissions from light- and medium-duty vehicles, and the zero-emission vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018–2025 model years. The program aims to reduce smog-forming pollution from passenger vehicles by 75 percent by 2025, with the ultimate goal of total fleet electrification and elimination of tailpipe emissions. CARB is in the process of establishing the next set of low-emission-vehicle and ZEV requirements to contribute to meeting federal ambient air quality ozone standards and California’s carbon neutrality targets (CARB 2021).
- In 2022, CARB approved the Advanced Clean Cars II Program (CARB 2023), for model years 2026–2035, which requires that all new passenger cars, trucks, and SUVs sold in California be zero emissions by 2035. The regulation amends the ZEV Regulation to require an increasing number of ZEVs, and relies on advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric, and plug-in hybrid electric-vehicles, to meet air quality and climate change emissions standards, in support of EO N-79-20 (CARB 2023). This program also amended the Low-Emission Vehicle Regulations to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions.
- In 2004, CARB adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling, to reduce public exposure to diesel particulate matter and other toxic air contaminants (13 CCR Section 2485). This measure generally prohibits diesel-fueled commercial vehicle idling for more than five minutes at any given location, with certain exemptions for equipment in which idling is a necessary function, such as concrete trucks.
- In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR Section 2025[h]).
- In 2007, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models.

While these regulations primarily target reductions in criteria air pollutant emission, they have the co-benefits of minimizing GHG emissions due to improved engine and fuel efficiencies and reduction of idling times.

Energy Sector

Title 24 of the California Code of Regulations is the California Building Code. It governs all aspects of building construction. Part 6 of the California Building Code includes standards mandating energy efficiency measures in new construction. The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CCR Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2022 update to the Title 24 standards became effective January 1, 2023.

The Energy Efficiency Standards for Residential and Nonresidential Buildings focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include the introduction of photovoltaic (PV) into the prescriptive package, the establishment of electric-ready requirements for new homes, and improvements for attics, walls, water heating, ventilation, and lighting. The most significant efficiency improvements to the nonresidential standards include alignment with the ASHRAE 90.1 2017 national standards, establishment of battery storage standards, and strengthening of ventilation standards. The 2022 updates to the Title 24 standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. Furthermore, the standards require that enforcement agencies determine compliance with state regulations (24 CCR Part 6) before issuing building permits for any construction (CEC 2022).

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the *California Green Building Standards Code* (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and nonresidential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality (California Building Standards Commission 2022).

The State of California has adopted regulations that establish the Renewables Portfolio Standard (RPS) to increase the proportion of electricity from renewable sources. On September 10, 2018, Governor Brown signed SB 100, which increased the RPS to require 50 percent renewable resources by December 31, 2026, and 60 percent by December 31, 2030, while requiring retail sellers and local publicly owned electric utilities to meet interim targets of 44 percent of retail sales by December 31, 2024, and 52 percent by December 31, 2027. SB 100 also states that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

SB 1020, signed on September 16, 2022, revises SB 100 to require that renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to end-use customers by December 31, 2035; 95 percent of all retail sales to end users by December 31, 2040; 100 percent of all retail sales to end users by December 31, 2045; and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

Cap-and-Trade Program

The Climate Change Scoping Plan identifies a cap-and-trade program as a key strategy CARB will employ to help California meet its GHG emissions reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32’s emissions reduction mandate of returning to 1990 levels of emissions by 2020 (17 CCR Sections 95800–96023).

The Cap-and-Trade Program establishes an overall limit for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MTCO₂e per year) and declines over time, and facilities subject to the cap may trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emissions reductions throughout the program’s duration (17 CCR Sections 95811 and 9512). On July 17, 2017, the California Legislature enacted AB 398, extending the Cap-and-Trade Program through 2030.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emissions limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. In other words, because climate change is a global occurrence and the impacts of GHG emissions are considered cumulative, a focus on aggregate GHG emissions reductions, rather than source-specific reductions, is warranted.

Regional and Local Laws, Regulations, and Policies

South Coast Air Quality Management District

Much of the County is located in the South Coast Air Basin, which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Geronio Pass area in

Riverside County. The South Coast Air Quality Management District (SCAQMD) is responsible for air quality planning in the South Coast Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards.

On December 5, 2008, the SCAQMD Governing Board adopted an interim GHG significance threshold of 10,000 MTCO₂e for stationary-source/industrial projects where SCAQMD is the lead agency for purposes of CEQA; however, SCAQMD has not adopted a GHG significance threshold applicable to the Project.

Antelope Valley Air Quality Management District

The Antelope Valley Air Quality Management District (AVAQMD) covers the western portion of the Mojave Desert Air Basin and has jurisdiction over the northern, desert portion of Los Angeles County, including the incorporated cities of Lancaster and Palmdale, Air Force Plant 42, and the southern portion of Edwards Air Force Base (AVAQMD 2016). AVAQMD operates monitoring stations in the Antelope Valley, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections.

AVAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Antelope Valley region of the Mojave Desert Air Basin. AVAQMD has not adopted a GHG significance threshold applicable to the Project.

Southern California Association of Governments

On September 3, 2020, SCAG's Regional Council formally adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, also known as Connect SoCal, which is an update to the previous 2016–2040 RTP/SCS (SCAG 2020b). Using growth forecasts and economic trends, both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS provide a vision for transportation throughout the region for the next several decades by considering the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The 2020–2045 RTP/SCS describes how the region can attain the GHG emissions reduction targets set by CARB by achieving reductions in per-capita transportation GHG emissions of 8 percent by 2020 and 19 percent by 2035, compared to the 2005 level (SCAG 2020b). Compliance with and implementation of the 2020–2045 RTP/SCS policies and strategies would have the co-benefits of reducing per-capita criteria air pollutant emissions (e.g., nitrogen dioxide, carbon monoxide) associated with reduced per-capita vehicle miles traveled.

The 2020–2045 RTP/SCS states that the SCAG region was home to approximately 18.8 million people in 2016 and included approximately 6.0 million homes and 8.4 million jobs (SCAG 2020b). By 2045, the integrated growth forecast projects that these figures will increase by 3.7 million people, with approximately 1.6 million more homes and 1.7 million more jobs. *High quality transit areas* (HQTAs), defined by the 2020–2045 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours, will account for 2.4 percent of regional total land, but are projected to accommodate 51 percent and 60 percent of

future household growth, respectively, between 2016 and 2045 (SCAG 2020b). As in the 2016–2040 RTP/SCS, the 2020–2045 RTP/SCS’s overall land use pattern reinforces the trend of focusing new housing and employment in the region’s HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life-cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

SCAG’s 2020–2045 RTP/SCS provides specific strategies for implementation. These strategies include supporting projects that encourage a diverse job opportunities for a variety of skills and education, recreation, and cultures and a full range of shopping, entertainment, and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a “Complete Streets” policy that meets the needs of all users of the streets, roads, and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative-fueled vehicles (SCAG 2020b).

In addition, the 2020–2045 RTP/SCS includes strategies to promote active transportation, support local planning and projects that serve short trips, and promote transportation investments, investments in active transportation, and more walkable and bikeable communities, that will result in improved air quality and public health and reduced greenhouse gas emissions, and that supports building physical infrastructure, regional greenways, and first-last mile connections to transit, including to light rail and bus stations. The 2020–2045 RTP/SCS aligns active transportation investments with land use and transportation strategies, to increase the competitiveness of local agencies for federal and state funding, and to expand the potential for all people to use active transportation. CARB has accepted SCAG’s GHG emissions quantification determinations as presented in the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS, and both demonstrate achievement of the GHG emissions reduction targets established by CARB (CARB 2016b; SCAG 2020b).

Although no GHG emissions reduction targets for passenger vehicles have been set by CARB for 2045, the 2020–2045 RTP/SCS GHG emissions reduction trajectory shows that more aggressive GHG emissions reductions are projected for 2045. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an additional 4.1 percent reduction in GHG emissions from transportation-related sources in the 10 years between 2035 and 2045, the 2020–2045 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state’s GHG emissions reduction goals (SCAG 2020b).

Los Angeles County Green Building Standards

In April 2016, the County amended the County Code to include Title 31, Green Building Standards Code. The Green Building Standards Code incorporates by reference standards from the 2022 CALGreen Code described above and supersedes the green building ordinance and the drought-tolerant landscaping ordinance in Title 22 of the County Code. The 2022 Green Building Standards Code includes mandatory residential and nonresidential measures related to low impact

development, electric vehicle charging infrastructure, cool roof installations, and construction waste management practices (County Code Title 31, Chapters 4 and 5).

Los Angeles County General Plan 2035

Adopted on October 6, 2015, the General Plan's Air Quality Element outlines goals and policies that would reduce GHG emissions and address the impacts of climate change. Approval of the Draft 2045 CAP would result in updates to the General Plan as shown in Table 2-1, *Updates to the Los Angeles County General Plan 2035 Air Quality Element*, and Table 2-2, *Updates to the Los Angeles County General Plan 2035 Implementation Program*, in Chapter 2, *Project Description*. In addition, the General Plan contains policies that encourage water conservation and protection, traffic reduction, sustainable development, and waste minimization that would further reduce GHG emissions (County of Los Angeles 2015).

Unincorporated Los Angeles County Community Climate Action Plan 2020

The *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP), adopted in 2015, was a component of the General Plan's Air Quality Element with a horizon year of 2020. To reduce impacts of climate change, the 2020 CCAP set a target to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11 percent below 2010 levels by 2020 (County Planning 2015). The 2020 CCAP contained 26 local actions related to green buildings and energy; land use and transportation; water conservation and wastewater; waste reduction, reuse, and recycling; and land conservation and tree planting. The following actions inform the measures and actions outlined within the Draft 2045 CAP:

BE-1: Green Building Development. Encouraged energy reductions in new development.

BE-6: Energy Efficient Retrofits of Wastewater Equipment. Promoted efficient treatment equipment.

LUT-6: Land Use Design and Density. Promoted sustainability in land use design.

LUT-9: Idling Reduction Goal. Limited idling time for heavy-duty construction equipment.

LUT-12: Electrify Construction and Landscaping Equipment. Established electrification goals for equipment.

WAW-1: Per Capita Water Use Reduction Goal. Reduced per capita water consumption; goals range from 5 to 20 percent below baseline values.

WAW-2: Recycled Water, Water Supply Improvement Programs, and Stormwater Runoff. Encouraged use of recycled and grey water.

The 2020 CCAP included 17 reduction strategies from the following areas: transportation; stationary energy; waste; industrial process and product use; and agriculture, forestry, and other land use.

OurCounty: Los Angeles Countywide Sustainability Plan

In August 2019, the County adopted the OurCounty Sustainability Plan, which contains 12 cross-cutting goals and identifies entities and partners that will work to bring to achieve the goals. To

achieve the goals, the County has identified 37 strategies and 159 actions (LACSO 2019). The following goals and actions may apply to the Draft 2045 CAP:

Goal 1: Resilient and healthy community environments where residents thrive in place.

Action 12: Complete development and start implementation of the Green Zones Program.

Goal 2: Buildings and infrastructure that support human health and resilience.

Action 28A: Conduct a Countywide climate vulnerability assessment that addresses social vulnerability and use it to guide priorities for investments in public health preparedness, emergency preparedness and response planning, and community resiliency.

Action 28B: Conduct a Countywide climate vulnerability assessment that addresses physical infrastructure vulnerability and use it to guide priorities for investments in building upgrades, infrastructure improvements, and zoning and code changes.

Action 31: Adopt CALGreen Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments.

Action 34: Invest in multi-benefit water management solutions that diversify and increase reliability of the water supply, reduce dependency on imported water, prioritize solutions that mimic natural systems, and maximize benefits to Native and disadvantaged communities.

Action 35: Develop a local water supply plan.

Action 37: Support efforts to maximize sustainable yield from local groundwater basins.

Action 38: Support efforts to clean up contaminated aquifers.

Action 40: Reduce barriers and increase accessibility to alternative water sources (rainwater, greywater, stormwater, and recycled water), including incentives for residential and commercial/small business greywater systems and streamlining permitting pathways.

Action 41: Advocate for a collaborative approach to partnering with the region's various groundwater managers to sustainably manage regional groundwater basins.

Goal 7: A fossil fuel-free LA County.

Action 85: Collaborate with the City of Los Angeles, Santa Monica, and other members of the Building Decarbonization Coalition to develop building energy and emissions performance standards that put the County on a path towards building decarbonization.

Goal 9: Sustainable production and consumption of resources.

Action 113: Develop a County-specific implementation plan for state water conservation targets that balances water supply goals with other critical OurCounty goals such as supporting conservation and expanding the urban forest.

Action 115: Adapt building code changes that improve water efficiency and reduce indoor and outdoor water use above current CALGreen standards.

Action 123: Increase the diversion requirements of the County's Construction and Demolition debris ordinance, encourage the use of recycled content materials in

construction projects, and incentivize use of recycled materials in public arts projects funded or commissioned by the County.

The plan is intended to help guide decision-making in unincorporated County areas and to provide a model for decision-making in the 88 incorporated cities in the County. As a strategic plan, the OurCounty Sustainability Plan does not supersede land use plans that have been adopted by the Board of Supervisors, including the Los Angeles County General Plan.

3.9.2 Impact Analysis

3.9.2.1 Significance Criteria

Consistent with the CEQA Guidelines Appendix G Environmental Checklist and County practice, a project would have a significant adverse environmental impact if it would:

- a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

CEQA Guidelines Section 15064.4 assists lead agencies in determining the significance of the impacts of GHG emissions, and gives them discretion to determine whether to assess emissions quantitatively or qualitatively. If a qualitative and quantification-based approach is used, then Section 15064.4 recommends qualitative factors that may be used in the determination of significance. These factors include the extent to which the project may increase or reduce GHG emissions compared to the existing environment, whether the project exceeds an applicable significance threshold, and the extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs. CEQA Guidelines Section 15064.4 does not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including by looking to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association, so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7[c]). The California Natural Resources Agency also has clarified that the CEQA Guidelines focus on the impacts of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (CNRA 2009; see also CEQA Guidelines Section 15064[h]).

Although GHG emissions can be quantified, CARB, SCAQMD, and the County have not adopted quantitative project-level significance thresholds for GHG emissions that apply to the Project. In 2008, OPR released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that “lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice,” and that while “climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment” (OPR 2008). Furthermore, the technical advisory states that “CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately

analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project” (OPR 2008).

Appendix D of the 2022 Scoping Plan provides guidance to local governments on setting appropriate GHG emissions targets for CEQA-qualified CAPs. For a CAP’s emission reductions targets to represent a level of significance below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable, as required by CEQA Guidelines Section 15183.5(b)(1)(B), such targets must be consistent with state climate goals: “GHG reduction targets should typically be estimated for specific years aligned with the State’s long-term climate targets established through existing laws or policy guidance” and “When establishing GHG reduction targets, jurisdictions should consider their respective share of the statewide reductions necessary to achieve the State’s long-term climate target for each target year, and how they can best support those overall goals” (CARB 2022c).

CARB also recommends that CAPs focus on emissions sources and sectors under the local government’s influence and control: “Local governments should focus on sources and actions within their control, and set targets that support overall state goals.” CARB further states that CAPs can align local GHG emissions reductions strategies with state strategies to ensure consistency with state policies: “One approach to setting targets is to align local GHG-reducing strategies and actions with the respective State policies that will deliver GHG emission reductions, if successfully implemented and supported at the local level” (CARB 2022c).

Consistency with the CARB 2022 Scoping Plan and the state’s statutory GHG emissions reduction targets is an appropriate metric by which to determine the significance of the Draft 2045 CAP’s GHG emissions. CEQA Guidelines Section 15064.4(b)(3) states that a lead agency “may consider a project’s consistency with the state’s long-term climate goals or strategies” when determining the significance of a project’s impacts.” Additionally, in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204, the California Supreme Court sanctioned the use of Scoping Plan consistency as a threshold: the court stated that assessing a project’s GHG impacts based on a “consistency with a GHG emission reduction plan” threshold of significance is legally permissible under CEQA.

3.9.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by the County (see Section 3.9.2.1, *Significance Criteria*) to determine whether the Draft 2045 CAP, including future projects facilitated by the Draft 2045 CAP’s measures and actions, would result in GHG emissions that would have a significant impact on the environment or conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The latter evaluation of GHG emissions impacts was based on a review of plans, policies, and regulations and a determination of their applicability to the Project. Impacts related to GHG emissions are analyzed both quantitatively and qualitatively.

Greenhouse Gas Emissions

The Draft 2045 CAP is a planning-level policy document and does not include quantification of GHG emissions from any specific projects that may be facilitated by the Draft 2045 CAP.

However, the analysis does include a 2015 baseline GHG inventory, a 2018 GHG inventory update, and projections of 2030, 2035, and 2045 emissions. The County utilized the 2015 baseline GHG inventory based on the data available as the inventory was prepared for the OurCounty Sustainability Plan.

The analysis considers both a business-as-usual (BAU) scenario and an adjusted BAU scenario. The BAU scenario is an emissions forecast out to the year 2045 that indicates how community emissions would increase in the absence of state regulations (e.g., renewable energy and vehicle fuel efficiency standards) and without any additional actions by the County to reduce emissions. This accounts for the growth in population, housing, and employment expected for the County through the year 2045. The “adjusted BAU” scenario accounts for the expected impacts of foreseeable federal, state, and regional actions, based on the latest information from CARB and the 2022 Scoping Plan. State measures include the Pavley vehicle standards, the Mobile Source Strategy, Advanced Clean Cars, and Title 24 Building Energy Standards updates, among others. See Section 3.9.1.3, *Regulatory Setting*, for details.

As shown in **Table 3.9-4, *Unincorporated County Greenhouse Gas Inventory and Forecasts***, the Draft 2045 CAP estimates the unincorporated County’s baseline GHG emissions in the year 2015 to be approximately 5.5 MMTCO_{2e}. In 2018, emissions declined to 5.17 MMTCO_{2e}. The Draft 2045 CAP estimates that the unincorporated County’s unmitigated (i.e., BAU) emissions would reach 5.24 MMTCO_{2e} by 2030, 5.32 MMTCO_{2e} by 2035, and 5.52 MMTCO_{2e} by 2045.

Quantified emissions resulting from implementation of state actions designed to reduce emissions from energy use are referred to as the adjusted BAU scenario and include: California’s RPS pursuant to SB 100, which establishes the goal to procure 44 percent of statewide electricity from renewable sources by 2024, 52 percent from renewable sources by 2027, 60 percent from renewable sources by 2030, and 100 percent from zero-carbon resources by 2045; utility energy efficiency programs directed by the California Public Utilities Commission; AB 1103 (which established the Commercial Energy Use Disclosure Requirement); and solar programs offered by the state. State actions that reduce emissions from transportation include California’s Pavley I and CAFE standards, the Low Carbon Fuel Standard, electric vehicle policies and programs, and CARB’s Tire Pressure Program and Heavy Duty Vehicle Aerodynamics Program. The Draft 2045 CAP also includes reductions from improved transportation and land use planning that result from SCAG’s RTP/SCS, as required by SB 375. Table 3.9-4 summarizes the backcast,⁸ inventory, BAU, and adjusted BAU emissions.

⁸ To monitor emissions reductions between 2010 and 2015/2018 and to ensure consistency with previous County commitments (dating back to 1990), the Global Protocol for Community-scale GHG Emission Inventories was used to develop a backcasting model for unincorporated County emissions. GHG emissions from each sector and subsector were scaled from 2015 to 1990 by using County and state parameters and datasets.

**TABLE 3.9-4
 UNINCORPORATED COUNTY GREENHOUSE GAS INVENTORY AND FORECASTS**

| Emissions Sector | Emissions (MTCO ₂ e) | | | | | | | | | | |
|-------------------|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------------|------------------|------------------|
| | Backcast | | Inventory | | | BAU Forecasts | | | Adjusted BAU Forecasts | | |
| | 1990 | 2005 | 2010 | 2015 | 2018 | 2030 | 2035 | 2045 | 2030 | 2035 | 2045 |
| Stationary Energy | 2,226,141 | 2,281,680 | 2,146,743 | 1,908,637 | 1,698,809 | 1,681,160 | 1,721,212 | 1,820,612 | 1,502,306 | 1,341,401 | 1,018,793 |
| Transportation | 3,450,566 | 3,066,417 | 3,015,442 | 2,838,133 | 2,704,685 | 2,784,518 | 2,815,094 | 2,876,247 | 2,205,885 | 2,080,234 | 1,993,281 |
| Waste | 511,965 | 542,292 | 564,503 | 469,997 | 469,382 | 451,919 | 454,097 | 482,489 | 451,919 | 454,097 | 482,489 |
| IPPU | 173,534 | 183,832 | 243,456 | 253,529 | 239,505 | 259,605 | 267,981 | 284,731 | 259,605 | 267,981 | 284,731 |
| AFOLU | 25,048 | 25,048 | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 | 60,860 |
| Total | 6,387,254 | 6,099,269 | 6,031,003 | 5,531,155 | 5,173,240 | 5,238,062 | 5,319,243 | 5,524,939 | 4,480,574 | 4,204,572 | 3,840,154 |

NOTES:

AFOLU = agriculture, forestry, and other land use; BAU = business-as-usual; IPPU = industrial processes and product use; MTCO₂e = metric tons of carbon dioxide equivalent
 To monitor emissions reduction between 2010 and 2015/2018 and to ensure consistency with previous County commitments (dating back to 1990), the Global Protocol for Community-scale GHG Emission Inventories was used to develop a backcasting model for unincorporated County emissions. Greenhouse gas emissions from each sector and subsector were scaled from 2015 to 1990 by using County and state parameters and data sets.

SOURCE: Draft 2045 CAP Appendices A and B.

The analysis then considers the reductions and actions implemented under the Draft 2045 CAP and subtracts the emissions reductions from the unincorporated County's adjusted BAU emissions to show the estimated level of emissions with implementation of the Draft 2045 CAP measures and actions. The unincorporated County's emissions with Draft 2045 CAP implementation are compared to the following future targets:

- The Draft 2045 CAP's target of 40 percent below 2015 levels by 2030, which aligns with the statewide 2030 target of 40 percent below 1990 levels as codified in SB 32 and included in the 2017 Scoping Plan.
- The Draft 2045 CAP's target of 50 percent below 2015 levels by 2035, which places the County on a path to achieve the Draft 2045 CAP's 2045 target.
- The Draft 2045 CAP's target of 83 percent below 2015 levels by 2045, which aligns with the statewide 2045 target of 85 percent below 1990 levels as codified in AB 1279 and included in the 2022 Scoping Plan.

In addition, as codified in AB 1279 and included in the 2022 Scoping Plan, statewide carbon neutrality shall be achieved by 2045 or sooner. The Draft 2045 CAP's 2045 reduction target and aspirational goal to achieve Countywide carbon neutrality by 2045 align with this statewide target and sets the unincorporated County on the pathway to achieving carbon neutrality by 2045.

The Draft 2045 CAP's 2030 target will be achieved through local land use developments contributing their "fair share" of emissions reductions to the statewide GHG emissions target for 2030. This is also consistent with the recommendation in the Association of Environmental Professionals' 2016 white paper for "Substantial Progress" thresholds for land use development to show consistency with statewide targets (AEP 2016). Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2030 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2030.

The Draft 2045 CAP's 2045 target of 83 percent below 2015 levels aligns with the statewide 2045 target, as codified in AB 1279 and the 2022 Scoping Plan. This is because the County's 2045 target of 85 percent below 2015 levels is equivalent to an 85 percent reduction below 1990 levels, which aligns with the State of California's target of 85 percent below 1990 levels. Consequently, the Draft 2045 CAP is equivalent to the state target. The Draft 2045 CAP's 2045 target also sets the County on a trend to help achieve California's 2045 GHG carbon neutrality target. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2045 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2045.

Calculation details, assumptions, and tables related to the 2015 baseline GHG inventory, 2018 GHG inventory update, projections of 2030, 2035, and 2045 emissions, and Draft 2045 CAP measures and actions are provided in Appendix A, *GHG Accounting and Projections*, and Appendix B, *GHG Quantification Methods*, of the Draft 2045 CAP. For ease in reference, this information is also provided in Revised Draft PEIR Appendix D, *Greenhouse Gas Emissions*.

Plans, Policies, and Regulations

GHG impacts are evaluated by assessing whether the Draft 2045 CAP conflicts with applicable GHG emissions reduction strategies and local actions approved or adopted by CARB, SCAG, and the County. The 2022 Scoping Plan, SCAG’s 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, and General Plan policies and goals all apply to the Project and all are intended to reduce GHG emissions to meet the statewide targets set forth in AB 32, as amended by SB 32, and AB 1279. Thus, the significance of the Draft 2045 CAP’s GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Draft 2045 CAP would conflict with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions, including CARB’s 2022 Climate Change Scoping Plan, SB 37, AB 1279, SCAG’s 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, and the CALGreen Code and County Green Building Codes.

3.9.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and many implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emission reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Revised Draft PEIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Revised Draft PEIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar PV projects and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emissions reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan’s land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts that could result from implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of GHG emissions–related impacts. Additional implementation detail on the measures and actions, including timing-related

performance objectives and tracking metrics, is contained in Draft 2045 CAP Appendix E, Table E-1. These and other relevant measures and actions include:

- **Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations.** This measure would develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal.
- **Measure ES2: Procure Zero-Carbon Electricity.** This measure would supply the County’s power demand with zero-carbon electricity.
- **Measure ES3: Increase Renewable Energy Production.** This measure would expand local solar power generation on existing and new development and for County projects by requiring the installation of rooftop solar PV on existing residential and commercial buildings. It also calls for the installation of 20,000 kilowatts of solar PV at County facilities, of solar PV for community use, and of rooftop solar PV at all affordable housing developments.
- **Measure ES4: Increase Energy Resilience.** This measure would expand energy storage and microgrids throughout the community and for the County.
- **Measure ES5: Establish GHG Requirements for New Development.** This measure would develop and implement requirements to ensure that new development is consistent with the 2045 CAP goals as well as its milestone targets for 2030, 2035, and 2045.
- **Measure T1: Increase Density Near High-Quality Transit Areas (HQTAs).** This measure would increase housing opportunities that are affordable and near transit to reduce VMT.
- **Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use.** This measure would increase density and the mix of land uses, which can help reduce single-occupancy trips, the number of trips, and trip lengths.
- **Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips.** This measure would expand travel options that serve a variety of land uses and trip purposes to help shift some trips away from single-occupancy vehicles.
- **Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation.** This measure would increase transit service, micro mobility services, and access to these transportation options to help reduce VMT.
- **Measure T5: Limit and Remove Parking Minimums.** This measure would address parking strategies, such as parking maximums, unbundling of parking, or market-price parking, that can help reduce VMT.
- **Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales.** This measure would increase the County’s ZEV market share and vehicle penetration to the maximum extent feasible to replace internal combustion engine vehicles and set targets for reducing total gasoline and diesel vehicle fuel sales.
- **Measure T7: Electrify County Fleet Vehicles.** This measure would electrify the County bus, shuttle, and light-duty vehicle fleet and shuttles.
- **Measure T8: Accelerate Freight Decarbonization.** This measure would incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure.

- **Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment.** This measure would prohibit the use of gas- and diesel-powered small (≤ 25 horsepower) off-road equipment and encourage the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.
- **Measure E1: Transition Existing Buildings to All-Electric.** This measure aims to electrify applicable existing buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.
- **Measure E2: Standardize All-Electric New Development.** This measure aims to electrify all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.
- **Measure E3: Other Decarbonization Actions.** This measure would reduce the life-cycle carbon intensity of building materials and phase out the use of high-GWP refrigerants.
- **Measure E4: Improve Energy Efficiency of Existing Buildings.** This measure would retrofit existing building stock to reduce overall County energy use.
- **Measure E5: Increase Use of Recycled Water and Gray Water Systems.** This measure would increase the use of alternative water sources and reduce the demand for water sources with higher energy and carbon intensities.
- **Measure E6: Reduce Indoor and Outdoor Water Consumption.** This measure would reduce indoor and outdoor water consumption, which would also reduce GHG emissions by reducing energy consumption required for the processing, treatment, and conveyance of water and wastewater.
- **Measure W1: Institutionalize Sustainable Waste Systems and Practices.** This measure would result in sustainable waste systems and increase the total waste diversion rate to avoid waste disposed in landfills.
- **Measure W2: Increase Organic Waste Diversion.** This measure would provide services for diverting yard waste, food scraps, and compostable paper from landfills to beneficial uses, including compost, food rescue, and energy production.
- **Measure A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and Other Carbon-Sequestering Wildlands and Working Lands.** This measure would preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County.
- **Measure A2: Support Regenerative Agriculture.** This measure would promote agricultural practices that sequester carbon and restore soil quality, biodiversity, ecosystems health, and water quality.
- **Measure A3: Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces.** This measure would create an Urban Forest Management Plan to plant trees, increase the unincorporated County's tree canopy cover, add green space, and convert impervious surfaces.

The time frame during which the implementation of these actions and measures would generate (or reduce) GHG emissions and potentially conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would depend on the specific implementation timing, as shown in Table 2-11 in Chapter 2, *Project Description*. The impact would occur immediately and continue through 2045 at the CAP's ultimate horizon year. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific GHG emissions-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an off-site GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the off-site GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If off-site GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact 3.9-1: The Draft 2045 CAP would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (*Less-than-Significant Impact*)

Pursuant to the criteria established by CEQA Guidelines Section 15183.5, the Draft 2045 CAP includes a 2015 baseline GHG emissions inventory, a 2018 GHG emissions inventory update, and projections of 2030, 2035, and 2045 emissions. GHG emissions for these years include emissions associated with all activities occurring within the boundaries of the unincorporated County. The inventories and forecasts were prepared pursuant to the Global Protocol for Community-scale GHG Emission Inventories. This information is contained in Appendix D, *Greenhouse Gas Emissions*. Further, the Draft 2045 CAP identifies a GHG emissions reductions target for the year 2030 that is equivalent to 40 percent below baseline 2015 levels, a 2035 target that is equivalent to 50 percent below baseline 2015 levels, and a 2045 target that is equivalent to 83 percent below baseline 2015 levels. The 2030 target is equivalent to 48 percent below 1990 levels, the 2035 target is equivalent to 57 percent below 1990 levels, and the 2045 target is equivalent to 85 percent below 1990 levels within the unincorporated County. Compared to the statewide target of

40 percent below 1990 levels by 2030 pursuant to SB 32, the Draft 2045 CAP's 2030 target is more stringent than the statewide target for 2030; compared to the statewide target of 85 percent below 1990 levels by 2045 pursuant to AB 1279, the Draft 2045 CAP's 2045 matches the statewide target for 2045.

Implementation of several of the Draft 2045 CAP measures and actions that relate to new or remodeled construction of projects facilitated by the Draft 2045 CAP measures and actions in the unincorporated County could result in short-term, construction-related GHG emissions. Several Draft 2045 CAP measures and actions could facilitate projects that generate short-term construction GHG emissions, but would not result in increased emissions associated with operation authorized by the Draft 2045 CAP measure or action. Several other Draft 2045 CAP measures and actions could facilitate projects that involve minor construction activities, such as energy and water efficiency upgrades to existing buildings that are not expected to result in substantial construction-related GHG emissions. The Draft 2045 CAP measures that are likely to result in construction-related GHG emissions include Measures ES2, ES3, ES4, T1, T2, T3, T4, T6, T8, E1, E2, E5, W1, and W2. These measures may result in relatively small-scale, localized, and short-duration construction activities.

Construction activities typically emit GHGs from combustion of fossil fuels in diesel and gasoline-powered equipment and vehicles and from the use of electricity that is generated partially from sources that emit GHGs. Because projects facilitated by these Draft 2045 CAP measures and actions would be limited in extent and duration, they would emit relatively small amounts of GHGs. In addition, the Draft 2045 CAP quantifies GHG emissions from off-road construction activity at the County level; these emissions are considered in the 2045 CAP's ability to achieve the 2030, 2035, and 2045 targets. The 2045 CAP Checklist (CAP Appendix F) also requires electric and zero-emission construction equipment during project construction to the maximum extent feasible to align with Measure T9. Furthermore, each of these proposed measures and actions is expected to result in long-term, substantial reductions in GHG emissions by (for example) reducing energy use and water use, facilitating use of nonpolluting modes of transportation, reducing vehicle trips, and converting municipal vehicles to low-emission or zero-emission models. Therefore, these Draft 2045 CAP measures and actions would reduce GHG emissions overall, and therefore would not make a considerable contribution to the cumulative impact of GHG emissions.

Implementation of projects facilitated by Draft 2045 CAP actions could result in both construction-related and operational GHG emissions. These include Measures ES2, ES3, T1, E5, W1, and W2. Projects facilitated by several of these measures could result in relatively large construction projects, such as development of large utility-scale solar energy facilities in the Antelope Valley and elsewhere in the County or state under Measures ES2 and ES3; infill development and redevelopment within HQTAs facilitated by Measure T1; and new or expanded wastewater and solid waste processing facilities under Measures W1 and W2. However, as indicated in the discussion of expected GHG emissions reductions from implementation of the Draft 2045 CAP, these measures would also result in substantial long-term reductions in GHG emissions. Therefore, they would not make a considerable contribution to cumulative GHG emissions.

The Draft 2045 CAP’s 2030 GHG emission reduction target was developed to demonstrate consistency with the statewide 2030 target pursuant to SB 32. The Draft 2045 CAP’s 2030 target is established based on a reduction from 2015 baseline levels and is equal to 40 percent below 2015 emissions (3.3 MMTCO₂e). This compares to the unincorporated County’s 2030 BAU forecast of 5.2 MMTCO₂e and adjusted BAU forecast of 4.5 MMTCO₂e. **Table 3.9-5, 2030 Greenhouse Gas Emissions Targets for the State and the Draft 2045 Climate Action Plan**, compares the Draft 2045 CAP’s 2030 emissions and 2030 target with the state’s 2030 target on a total emissions, emissions per capita, and emissions per service population basis.⁹

**TABLE 3.9-5
 2030 GREENHOUSE GAS EMISSIONS TARGETS FOR THE STATE AND THE DRAFT 2045 CLIMATE ACTION PLAN**

| Category | Total Emissions | Socioeconomic Data | | | GHG Emissions (MTCO ₂ e) | |
|---|-----------------|--------------------|------------|--------------------|-------------------------------------|----------------------------------|
| | | Population | Employment | Service Population | Emissions per Capita | Emissions per Service Population |
| 1990 Emissions (Backcast) | 6,387,254 | 970,194 | N/A | N/A | 6.6 | - |
| 2015 Baseline Emissions | 5,531,155 | 1,058,871 | 255,287 | 1,314,158 | 5.2 | 4.2 |
| 2030 BAU Forecast | 5,238,062 | 1,173,204 | 286,913 | 1,460,117 | 4.5 | 3.6 |
| 2030 Adjusted BAU Forecast | 4,480,574 | 1,173,204 | 286,913 | 1,460,117 | 3.8 | 3.1 |
| Draft 2045 CAP 2030 Target (40% below 2015 baseline = 48% below 1990 emissions) | 3,318,693 | 1,173,204 | 286,913 | 1,460,117 | 2.8 | 2.3 |
| State 2030 Target | 258,600,000 | 41,860,549 | 18,986,000 | 60,846,549 | 6.2 | 4.3 |
| Equivalent State 2030 Target for County (40% below County's 1990 emissions) | 3,832,352 | 1,173,204 | 286,913 | 1,460,117 | 3.3 | 2.6 |
| Draft 2045 CAP Implementation in 2030 | 2,899,852 | 1,173,204 | 286,913 | 1,460,117 | 2.5 | 2.0 |

NOTES:

BAU = business as usual; Draft 2045 CAP = *Los Angeles County Draft 2045 Climate Action Plan*; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent; N/A = not applicable

SOURCE: Recirculated Draft EIR Appendix D, *Greenhouse Gas Emissions*; LA County Draft 2045 CAP, 2023

The Draft 2045 CAP’s 2030 GHG emission reduction target of 40 percent below 2015 levels aligns with the statewide 2030 target as codified in SB 32. This is because the County’s 2030 target of 40 percent below 2015 levels is equivalent to a 48 percent reduction below 1990 levels, which exceeds the state’s target of 40 percent below 1990 levels. The County’s emissions in 2015 are estimated to be 13 percent lower than 1990 emissions; this compares to statewide emissions, which were 2.3 percent higher in 2015 than in 1990 (CARB 2014b, 2021a). Consequently, the Draft 2045 CAP is more stringent than the state target when compared to 1990 levels and also when compared to per-capita or per-service-population emissions levels.

The Draft 2045 CAP’s 2035 GHG emission reduction target of 50 percent below 2015 levels is consistent with the OurCounty Sustainability Plan’s target, and it puts the County on the

⁹ *Service population* is the sum of population and employment.

trajectory to achieve the Draft 2045 CAP’s 2045 target and to achieve the long-term aspirational goal of carbon neutrality by 2045, consistent with state targets. The Draft 2045 CAP’s 2035 target is based on a reduction from 2015 baseline levels and is equal to 50 percent below 2015 emissions (2.8 million MTCO₂e). This compares to the County’s 2035 BAU forecast of 5.3 million MTCO₂e. A 50 percent reduction below 2015 levels is also equivalent to a 57 percent reduction below the County’s 1990 GHG emissions levels.

The Draft 2045 CAP’s 2045 GHG emission reduction target was selected based on AB 1279 and guidance provided in the 2022 Scoping Plan and was developed to demonstrate consistency with the statewide 2045 target. The Draft 2045 CAP’s 2045 target is 83 percent below 2015 levels (958,000 MTCO₂e). This compares to the County’s 2045 BAU forecast of 5.5 million MTCO₂e. An 83 percent reduction below 2015 levels is also equivalent to an 85 percent reduction below the County’s 1990 GHG emissions levels, which in turn is equivalent to the state target of an 85 percent reduction below 1990 levels by 2045 pursuant to AB 1279 and the 2022 Scoping Plan.

Implementation of the Draft 2045 CAP also would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts. **Table 3.9-6, Greenhouse Gas Emissions from Climate Action Plan Implementation and Comparison to Existing and Future Baselines**, compares the baseline 2015 emissions and 2030, 2035, and 2045 BAU emissions to the emissions estimated with implementation of the Draft 2045 CAP. Strategies, measures, and actions in the Draft 2045 CAP would be implemented in addition to state legislation. As shown in Table 3.9-6, the Draft 2045 CAP would meet or exceed the 2030, 2035, and 2045 targets of 40 percent, 50 percent, and 83 percent below 2015 baseline emissions, respectively. This shows the aggregate impact of implementing Draft 2045 CAP measures and actions over time for each of the Draft 2045 CAP’s future horizon years. As the Draft 2045 CAP is implemented over time, GHG emissions would be reduced by greater amounts, aligning the County with the state’s climate goals, and reducing GHG emissions to less-than-significant levels for each future target year.

**TABLE 3.9-6
 GREENHOUSE GAS EMISSIONS FROM CLIMATE ACTION PLAN IMPLEMENTATION
 AND COMPARISON TO EXISTING AND FUTURE EMISSIONS**

| Emissions Sector | Emissions (MTCO ₂ e) | | | |
|--|---------------------------------|------------|------------|------------|
| | 2015 | 2030 | 2035 | 2045 |
| BAU Emissions | 5,531,155 | 5,238,062 | 5,319,243 | 5,524,939 |
| Draft 2045 CAP Implementation Emissions | - | 2,899,852 | 2,171,152 | 851,199 |
| <i>Total Emission Reductions from the Draft 2045 CAP</i> | - | -1,580,723 | -2,033,420 | -2,988,956 |
| <i>Percent Reduction below 2015 Levels with Implementation of the Draft 2045 CAP</i> | | 48% | 64% | 88% |
| <i>Target Percent Reduction below 2015 Levels</i> | | 40% | 50% | 83% |

NOTES:

BAU = business-as-usual; Draft 2045 CAP = Los Angeles County Draft 2045 Climate Action Plan; MTCO₂e = metric tons of carbon dioxide equivalent

SOURCE: Recirculated Draft EIR Appendix D, *Greenhouse Gas Emissions*

The Draft 2045 CAP is not sufficient to reduce the unincorporated County’s emissions to net zero by 2045; residual emissions with implementation of the Draft 2045 CAP are estimated to be 850,000 MTCO_{2e} in 2045. However, this EIR focuses on the ability of the 2045 CAP to achieve the 2030, 2035, and 2045 targets, and not on the 2045 carbon-neutral aspirational goal to directly align with AB 1279’s statewide net-zero target. This is because the 2045 CAP demonstrates a quantitative pathway for the County to be able to achieve the 2045 target but not the aspirational carbon-neutral goal, and because the 2045 target aligns with the statewide 2045 target as codified in AB 1279 and the 2022 Scoping Plan as discussed above. Further, the 2022 Scoping Plan states that local governments do not need to adopt carbon neutrality targets to align with the state’s goals,¹⁰ but should instead adopt targets and strategies that *support* the state’s climate goals that align with the *trajectory* to statewide carbon neutrality: “CARB recommends that jurisdictions focus on developing locally appropriate, plan-level targets that align with the trajectory to carbon neutrality” (CARB 2022c).

As described above, construction and operations associated with projects facilitated by Draft 2045 CAP measures and actions, such as large-scale solar energy facilities in the Antelope Valley or elsewhere in the County or state, would result in GHG emissions, but these emissions would be more than offset by the long-term reductions in GHG emissions that the Draft 2045 CAP measures and actions would enable throughout the unincorporated County. Under the Draft 2045 CAP, mass GHG emissions would be lower than the 2015 baseline and also lower than the BAU forecasts for 2030, 2035, and 2045 (i.e., forecasts). Further, the emissions reductions achieved by the Draft 2045 CAP would be less than the state’s target emissions of 40 percent below 1990 levels by 2030 on a total-emissions, emissions-per-capita, and emissions-per-service-population basis. The Draft 2045 CAP would also meet the 2045 target of 83 percent below 2015 levels, which aligns with the statewide 2045 target codified by AB 1279 (see discussion above). Therefore, GHG emissions associated with implementation of projects facilitated by Draft 2045 CAP measures and actions would not make a considerable contribution to cumulative GHG emissions, and the impact would be less than significant.

Mitigation: None required.

¹⁰ CARB states, “Jurisdictions should also avoid creating targets that are impossible to meet as a basis to determine significance. For example, a net-zero target may imply that the GHG emissions of any project that are not reduced or offset to zero would be considered potentially significant. This may lead to undue burdens and frustrate project approval processes, which may be particularly problematic for residential development in climate-smart, infill areas. In addition, some jurisdictions have more land capacity to remove and store carbon, while others host GHG-emitting facilities that serve necessary functions and will take time to transition to new technology (e.g., municipal wastewater treatment plants, landfills, energy generation facilities). In those cases, jurisdictions that work together on a regional framework to rapidly decarbonize together may have better success in maximizing both emission reductions and other co-benefits. Ultimately, a net-zero target that makes it more difficult to achieve statewide goals by prohibiting or complicating projects that are needed to support the State’s climate goals, like infill development or solar arrays, is not consistent with the State’s goals” (CARB 2022c).

Criterion b) Whether the Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Impact 3.9-2: The Draft 2045 CAP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. (*Less-than-Significant Impact*)

CARB 2022 Scoping Plan, SB 32, and AB 1279

The CARB 2022 Scoping Plan For Achieving Carbon Neutrality was approved in December 2022 and expands on prior scoping plans and recent legislation, such as AB 1279, by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state’s climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or sooner (CARB 2022c). To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG emissions reductions, technology, and clean energy mandated by statutes; reduction of short-lived climate pollutants; and mechanical CO₂ capture and sequestration actions.

As mentioned above, consistency with the CARB 2022 Scoping Plan and the state’s statutory GHG emissions reduction targets is an appropriate metric by which to determine the significance of the Draft 2045 CAP’s GHG emissions. As shown in **Table 3.9-7**, the Draft 2045 CAP’s measures and actions are consistent with the reduction measures and recommendations contained in CARB’s 2022 Scoping Plan.

**TABLE 3.9-7
 CONSISTENCY OF THE DRAFT 2045 CAP WITH THE 2022 SCOPING PLAN**

| 2022 Scoping Plan Action | Draft 2045 CAP Measures |
|--|--|
| Increase in Renewable Energy and Decrease in Oil and Gas Use Actions | ES1: Actions ES 1.1, ES1.2, and ES1.3. ES2: Actions ES2.1 and ES2.2. ES3: Actions ES3.1, ES3.2, ES3.3, ES3.4, and ES3.5. T8: Actions T8.1, T8.2, T8.3, and T8.4. T9: Actions T9.1, T9.2, and T9.3. E3: Action E3.1. |
| Low Carbon Fuels Actions | T6: Actions T6.1, T6.2, T6.3, T6.4, T6.5, T6.6, and T6.7. T7: Actions T7.1 and T7.2. T8: Actions T8.1, T8.2, T8.3, T8.4, and T8.5. T9: Actions T9.1, T9.2, and T9.3. |
| Expansion of Electrical Infrastructure Actions | ES2: Actions ES2.1 and ES2.2. ES3: Actions ES3.1, ES3.2, ES3.3, ES3.4, and ES3.5. ES4: Actions ES4.1, ES4.2, ES4.3, ES4.4, and ES4.5. T6: Actions T6.2, T6.3, T6.4, and T6.5. T8: Action T8.4. |

**TABLE 3.9-7 (CONTINUED)
 CONSISTENCY OF THE DRAFT 2045 CAP WITH THE 2022 SCOPING PLAN**

| 2022 Scoping Plan Action | Draft 2045 CAP Measures |
|---|---|
| Climate Ready and Climate-Friendly Buildings | ES3: Actions ES3.1, ES3.2, ES3.3, ES3.4, and ES3.5. ES5: Actions ES5.1, ES5.2, ES5.3, and ES5.4. T8: Action T8.3. E1: Actions E1.1, E1.2, E1.3, E1.4, E1.5, and E1.6. E2: Actions E2.1, E2.2, and E2.3. E3: Actions E3.2 and E3.3. E4: Actions E4.1, E4.2, and E4.3. E5: Actions E5.1, E5.2, and E5.3. |
| Expanded Use of Zero-Emission Mobile Source Technology Actions | T6: Actions T6.1, T6.2, T6.3, T6.4, T6.5, T6.6, and T6.7. T7: Actions T7.1 and T7.2. T8: Action T8.4. T9: Actions T9.1, T9.2, and T9.3. |
| Mechanical Carbon Dioxide Removal and Carbon Capture and Sequestration Actions | ES1: Action ES1.3. A2: Actions A2.1 and A2.2. |
| Improvements to Oil and Gas Facilities Actions | ES1: Actions ES 1.1, ES1.2, and ES1.3. |
| Reduced High-GWP Fluorinated Gases Actions | E3: Action E3.4. |
| Forest, Shrubland, and Grassland Management Actions | A1: Actions A1.1 and A1.2. |
| Agricultural Actions | A1: Actions A1.1 and A1.2. A2: Actions A2.1 and A2.2. |
| Organic Waste Diversion and Composting Actions | T6: Action T6.7. W1: Actions W1.1, W1.2, and W1.3. W2: Actions W2.1, W2.2, W2.3, W2.4, and W2.5. |
| Afforestation, Urban Forestry Expansion, Urban Greening, Avoided Natural and Working Land Use Conversion, and Wetland Restoration Actions | E4: Action E4.3. A1: Actions A1.1 and A1.2. A3: Actions A3.1, A3.2, and A3.3. |
| Reduced VMT Actions | T1: Actions T1.1 and T1.2. T2: Action T2.1. T3: Actions T3.1, T3.2, and T3.3. T4: Actions T4.1, T4.2, T4.3, T4.4, T4.5, T4.6, T4.7, T4.8, and T4.9. T5: Action T5.1. T6: Action T6.6. |

NOTES: 2022 Scoping Plan = 2022 Scoping Plan for Achieving Carbon Neutrality; 2045 CAP = 2045 Los Angeles County Climate Action Plan; GWP = global warming potential VMT = vehicle miles traveled
 SOURCES: CARB 2022c; Draft LA County 2045 CAP 2023

As discussed above under Impact 3.9-1, the Draft 2045 CAP 2030 target aligns with the statewide 2030 target as codified in SB 32. The Draft 2045 CAP’s 2035 target aligns with the OurCounty Sustainability Plan’s target, and the Draft 2045 CAP’s 2045 target aligns with the statewide 2045 target as codified in AB 1279. The Draft 2045 CAP would result in reduction of GHG emissions over time from 1.6 MMTCO₂e in 2030 to 3.0 MMTCO₂e in 2045. This is equivalent to an 85 percent reduction below Countywide 1990 emissions and sets the County on a path to be carbon

neutral by 2045, consistent with AB 1279 and the 2022 Scoping Plan. The Draft 2045 CAP’s 2045 target also sets the County on a trend to achieve California’s 2045 carbon neutrality target.

As shown in **Table 3.9-8, *Estimated Greenhouse Gas Emissions Reductions of Draft 2045 Climate Action Plan Strategies***, implementation of the Draft 2045 CAP would enable the unincorporated County to exceed its reduction target by more than 415,000 MTCO_{2e} in 2030, more than 590,000 MTCO_{2e} in 2035, and more than 105,000 MTCO_{2e} in 2045. Consequently, the Draft 2045 CAP’s GHG emissions exceed the corresponding state targets.

**TABLE 3.9-8
 ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTIONS OF DRAFT 2045 CLIMATE ACTION PLAN STRATEGIES**

| Category | GHG Reductions (MTCO _{2e}) | | |
|---|--------------------------------------|------------|------------|
| | 2030 | 2035 | 2045 |
| 2015 Baseline Emissions | 5,531,155 | 5,531,155 | 5,531,155 |
| BAU Emissions | 5,238,062 | 5,319,243 | 5,524,939 |
| Adjusted BAU Emissions | 4,480,574 | 4,204,572 | 3,840,154 |
| Total Emission Reductions from the Draft 2045 CAP | -1,580,723 | -2,033,420 | -2,988,956 |
| Total Emissions with Implementation of the Draft 2045 CAP | 2,899,852 | 2,171,152 | 851,199 |
| Target Emissions Level | 3,318,693 | 2,765,578 | 958,088 |
| Gap to Target | -418,841 | -594,425 | -106,890 |
| Emission Reductions Needed | None | None | None |

NOTES:

BAU = business-as-usual; Draft 2045 CAP = *Los Angeles County Draft 2045 Climate Action Plan*; GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent

SOURCE: Recirculated Draft EIR Appendix D, *Greenhouse Gas Emissions*

The County may reach its aspirational goal of carbon neutrality by 2045, but not through implementation of the Draft 2045 CAP alone. To achieve carbon neutrality, substantial state and regional action must be taken to balance residual emissions with carbon removals, via CCS, CDR, and natural sequestration in natural and working lands: “Carbon removal and sequestration will be an essential tool to achieve carbon neutrality, and the modeling clearly shows there is no path to carbon neutrality without carbon removal and sequestration” (CARB 2022c). Such actions are still in development at the state level and will require years or decades to come to full fruition.

CARB’s goals for statewide GHG removals are 20 MMTCO_{2e} by 2030 and 100 MMTCO_{2e} by 2045, illustrating the massive ramp-up of carbon removal actions and technologies that is needed in the years between 2030 and 2045. CARB also acknowledges that not all jurisdictions will be able to achieve carbon neutrality independently, given that “some jurisdictions have more land capacity to remove and store carbon, while others host GHG-emitting facilities that serve necessary functions and will take time to transition to new technology” (CARB 2022c). The County is no exception and will likely be unable to achieve local carbon neutrality without the implementation of state and regional GHG removal programs.

The Draft 2045 CAP would meet the GHG emissions reduction targets for 2030, 2035, and 2045, which align with or exceed the state’s adopted targets for 2030 pursuant to SB 32 and 2045 pursuant to AB 1279 and the 2022 Scoping Plan. Thus, the Draft 2045 CAP does not conflict with achieving the SB 32 and AB 1279 targets or the 2022 Scoping Plan, or with making progress toward achieving statewide carbon neutrality. The Draft 2045 CAP makes progress toward carbon neutrality to align with AB 1279 and the 2022 Scoping Plan; however, its inability to achieve carbon neutrality by 2045 does not conflict with the 2022 Scoping Plan or AB 1279. CARB states that local governments do not need to adopt carbon neutrality targets to align with the state’s goals, but should instead adopt targets and strategies that *support* the state’s climate goals that align with the *trajectory* to statewide carbon neutrality (CARB 2022d).

As outlined in Draft EIR Chapter 2, *Project Description*, and in Draft 2045 CAP Chapter 4, *Implementation*, the County would implement a monitoring plan to ensure that the strategies in the Draft 2045 CAP achieve the anticipated GHG reductions. Further, the County has developed the Draft 2045 CAP Consistency Checklist to assist with determining project consistency with the Draft 2045 CAP. The Draft 2045 CAP Consistency Checklist provides individual projects the opportunity to demonstrate that they are reducing GHG emissions; it also helps ensure that projects facilitated by the Draft 2045 CAP would achieve their proportion of emissions reductions consistent with the assumptions of the Draft 2045 CAP.

Southern California Association of Governments 2020–2045 RTP/SCS

The Draft 2045 CAP incorporates several key strategies, including increasing density near HQTAs in Los Angeles County, to align with the goals of SCAG’s 2020–2045 RTP/SCS. The Draft 2045 CAP includes measures that incentivize development near high-quality transit or similar mechanisms for land uses near transit. Part of the Draft 2045 CAP’s effort to incentivize development near transit includes requiring the development of a specific number of units in HQTAs, increasing housing density, and developing pedestrian and bike networks connecting HQTAs and thus reducing vehicle miles traveled. In addition, the County’s transportation demand management (TDM) policies include strategies that encourage changes in travel behavior and discourage single-occupant vehicles. TDM policies include congestion management pricing, employer-based transit passes, or increased transit availability; regional carpooling programs; and parking management. The Draft 2045 CAP would implement similar measures, including Measure T4, which would include a TDM ordinance, bus-only lanes, and signal prioritization; offer free transit passes for students, youth, seniors, disabled, and low-income populations; and establish car-free areas.

The 2020–2045 RTP/SCS includes targets that comply with emissions reduction targets established by CARB and meet the requirements of SB 375. The 2035 reduction target is 19 percent below 2005 per-capita passenger vehicle emissions levels by 2035 (SCAG 2020b). **Table 3.9-8, *Unincorporated County per Capita Passenger Vehicle Emissions Comparison***, shows the unincorporated County’s population and backcast passenger vehicle emissions in 2005 compared to the estimated 2035 population and passenger vehicle emissions with implementation of the Draft 2045 CAP.

**TABLE 3.9-8
 UNINCORPORATED COUNTY PER CAPITA PASSENGER VEHICLE EMISSIONS COMPARISON**

| Year | 2005 | 2035 |
|---|-------------|-------------|
| Population | 1,055,539 | 1,211,053 |
| Passenger Vehicle Emissions (MTCO ₂ e) | 2,779,817 | 916,218 |
| Per Capita Emissions (MTCO ₂ e/person) | 2.6 | 0.8 |
| Percent Reduction from 2005 Levels | - | 69% |
| 2035 Target Percent Reduction | - | 19% |

NOTES: MTCO₂e = metric tons of carbon dioxide equivalent

The emissions comparison is between backcast 2005 BAU emissions and 2035 emissions with Draft 2045 CAP strategies and measures implemented, namely Measure T6.

Percent reduction from 2005 levels was calculated by taking per capita emissions for 2005 – per capita emissions for 2035/per capita emissions for 2005 (2.6-0.8/2.6 = 0.69).

SOURCE: Recirculated Draft PEIR Appendix D, *Greenhouse Gas Emissions*; SCAG 2020b

As shown in Table 3.9-8, the passenger vehicle per-capita emissions under the Draft 2045 CAP would decrease by 69 percent from 2005 levels and would exceed the 19 percent reduction target set by the 2020–2045 RTP/SCS. Based on the above analysis, the Draft 2045 CAP is consistent with the 2020–2045 RTP/SCS.

OurCounty Sustainability Plan

The Draft 2045 CAP would further the vision and goals of the OurCounty Sustainability Plan and implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, once adopted, the Draft 2045 CAP would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP would serve as the overarching implementation plan through the 2045 horizon year and is expected to be updated regularly to reflect new advances and technologies in GHG emissions reduction strategies. One of the primary objectives of the Draft 2045 CAP is to align its GHG emissions reduction goals with the OurCounty Sustainability Plan. The Draft 2045 CAP would implement reduction measures directly related to the OurCounty goals such as measures and actions to increase building electrification and decarbonization, increase the use of recycled and gray water, and reduce reliance on fossil fuels. Further, the Draft 2045 CAP sets a new target of 40 percent below 2015 levels by 2030 and matches the OurCounty Sustainability Plan’s targets of 50 percent below 2015 levels by 2035. The Draft 2045 CAP’s aspirational goal of carbon neutrality by 2045 is also consistent with the OurCounty Sustainability Plan, which aims to achieve carbon neutrality by 2045 for LA County operations and by 2050 Countywide (including all incorporated cities). Therefore, the Draft 2045 CAP as a whole is consistent with the OurCounty Sustainability Plan.

CALGreen Code and Los Angeles County Green Building Ordinance

The Draft 2045 CAP would be consistent with the requirements of the CALGreen Code and County Green Building Ordinance, which include building energy and water efficiency improvements. The Draft 2045 CAP would implement both new and existing building energy efficiency improvements through various Draft 2045 CAP measures, including: electrifying new and existing buildings, increasing production of renewable energy, improving the energy efficiency of existing buildings, reducing indoor and outdoor water consumption, and increasing

the use of gray and recycled water. Through implementation of these Draft 2045 CAP measures, the Project would be consistent with—and in some instances, go beyond—the code requirements of the CALGreen Code and County’s Green Building Ordinance.

Summary

As described above, the Draft 2045 CAP would not conflict with the GHG emissions reduction targets established by SB 32 and AB 1279; the reduction measures identified in CARB’s 2022 Scoping Plan; SCAG’s 2020–2045 RTP/SCS; the OurCounty Sustainability Plan; or the measures in the CALGreen Code and the County Green Building Ordinance. For each of the Draft 2045 CAP’s horizon years (2030, 2035, and 2045), the Draft 2045 CAP does not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. As the Draft 2045 CAP is implemented over time, GHG emissions are reduced by greater amounts, aligning the County with such plans, policies, and regulations. This impact would therefore be less than significant.

Mitigation: None required.

3.9.2.4 Cumulative Impacts

Criterion a) and b)

Impact 3.9-3: Projects facilitated by the Draft 2045 CAP could result in a significant cumulative impact by generating GHG emissions, either directly or indirectly, during their construction or operation, or by conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. (*Less-than-Significant Impact*)

The Draft 2045 CAP would reduce County GHG emissions; the Project would be consistent with applicable GHG reduction plans, policies, and regulations; and GHG emissions impacts are inherently cumulative. For these reasons, the Project’s incremental contribution to significant cumulative GHG emissions would be less than significant and not cumulatively considerable. Therefore, the Draft 2045 CAP’s cumulative GHG emissions impact would be less than significant.

Mitigation: None required.

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3.10 Hazards and Hazardous Materials

This section identifies and evaluates issues related to hazards and hazardous materials to determine whether the Project would result in a significant impact related to hazards to the public or the environment associated with hazardous materials, wastes, or emissions; airport-related safety hazards or excessive noise; or adopted emergency response or evacuation plans. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used to evaluate these impacts, and the results of the impact assessment. For an analysis related to wildfire, see Section 3.18, *Wildfire*.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to hazards and hazardous materials include support for the reliability of energy resources and protection of the environment and public health and safety; concerns that electrification could destabilize energy reliability and affect health and safety; and concerns that alternative technology facilities could release hazardous materials and/or result in hazards-related impacts.

3.10.1 Setting

3.10.1.1 Study Area

The study area for this analysis of impacts related to hazards and hazardous materials consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that composes the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.10.1.2 Environmental Setting

This section is divided into discussions of potential hazards related to hazardous materials, airports, and emergency response and evacuation plans. This section also presents information on potential impacts caused by exposure to several potential hazards associated with renewable energy facilities, including electric and magnetic fields (EMFs) and materials used in solar photovoltaic (PV) panels and battery storage facilities, because projects like these could be facilitated by Draft 2045 CAP measures and actions.

Hazardous Materials

Hazardous materials are commonly encountered during construction activities. Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment. California Health and Safety Code Section 25501 defines a *hazardous material* as:

A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous

substance, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Sites with Known Hazardous Materials Issues

The California Environmental Protection Agency (CalEPA) is required by Government Code Section 65962.5 to compile, maintain, and update lists of hazardous materials release sites, and the CEQA Guidelines require lead agencies to consult the lists to determine whether a project site is on a listed hazardous materials release site. The required lists are as follows:

- **U.S. Environmental Protection Agency (USEPA) National Priorities List:** Lists sites identified by USEPA’s Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (aka Superfund) program, which was created to fund the cleanup of contaminated sites.
- **USEPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and Archived Sites:** The USEPA CERCLIS contains a list of 15,000 hazardous sites around the country. Archived sites are those that have been removed from the list due to a “No Further Remedial Action Planned” status.
- **USEPA Resource Conservation and Recovery Act Information System (RCRIS):** The RCRIS contains information about hazardous waste handlers around the country. All generators, handlers, transporters, and disposers of hazardous waste are required to post information in this system.
- **California Department of Toxic Substances Control (DTSC) Cortese List:** DTSC is a department of CalEPA. Among other responsibilities, DTSC maintains the Cortese List, aka the Hazardous Waste and Substances Sites List. The Cortese List is used by state and local agencies to comply with the CEQA Guidelines by providing information about the locations of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database (known as CalSites).
- **DTSC HazNet:** DTSC uses this database to monitor shipments of hazardous waste.
- **State Water Resources Control Board Leaking Underground Storage Tank Information System:** The State Water Resources Control Board maintains this system, which consists of an inventory of underground storage tanks and leaking underground storage tanks and tracks unauthorized releases.

These lists of hazardous materials release sites and other relevant sites are now contained on internet databases maintained by government boards or departments. The databases include EnviroStor (maintained by DTSC) and GeoTracker (maintained by the State Water Resources Control Board). As part of the 2019 Draft Program EIR for Connect SoCal (SCAG 2020), these two databases were searched to identify sites in Los Angeles County where hazardous materials may have been released. These two databases and the results they yielded are further characterized below.

EnviroStor

The EnviroStor database (DTSC 2021) includes sites that have known contamination or sites that need further investigation. This database includes the National Priorities List, state response sites, voluntary cleanup sites, school investigation and cleanup sites, corrective action sites, tiered California permit sites, and sites that are being investigated for suspected contamination. Numerous sites in Los Angeles County are listed on EnviroStor, including 149 school investigation and school cleanup sites; 165 state response sites; 18 federal Superfund sites; and 370 voluntary cleanup sites (SCAG 2020: Table 3.9-1).

GeoTracker

The GeoTracker database (SWRCB 2021) includes hazardous materials sites that have the potential to affect groundwater quality, including leaking underground storage tanks. Numerous sites in Los Angeles County are listed on GeoTracker, including 7,528 leaking underground storage tank sites (SCAG 2020: Table 3.9-2).

Sites with Potential Hazardous Materials Issues

A variety of historical land uses and conditions that occur in the unincorporated areas could result in site contamination, representing potential hazards to humans and the environment when new land uses are proposed on those lands. Examples of historical land uses that have the potential to result in current site contamination include burn sites, landfills, composting, formerly used defense sites, agriculture, and petroleum storage.

Landfills

Active, abandoned, and closed landfills present potential issues related to the exposure of humans to hazards, such as landfill gas migration, when a project is proposed on or near a landfill site.

Active Landfills. Seven landfills are sited in the County's unincorporated areas:

- The Calabasas Landfill in the Santa Monica Mountains Planning Area is owned by the County and operated by County Sanitation District No. 2.
- The Chiquita Canyon Landfill in the Santa Clarita Valley Planning Area is owned and operated by a private waste service company, Waste Connections Inc.
- The Sunshine Canyon Landfill and Recycling Center is partially located within an unincorporated area in the San Fernando Valley Planning Area.
- The Puente Hills Landfill in the East San Gabriel Valley Planning Area is owned by County Sanitation District No. 18 and was operated by County Sanitation District No. 2 (this landfill recently closed).
- The Pebbly Beach Landfill, located on Santa Catalina Island in the Coastal Islands Planning Area, is owned by the City of Avalon and operated by Seagull Sanitation Systems (Republic Services Inc.).
- The San Clemente Landfill is located on San Clemente Island in the Coastal Islands Planning Area and is owned and operated by the U.S. Department of the Navy.
- The Lancaster Landfill and Recycling Center is in the unincorporated area of Antelope Valley.

Additionally, six other landfills are located in incorporated cities within Los Angeles County (not including those listed above, which are partially within unincorporated areas) (County Planning 2015a).

Transfer and Processing Stations. Solid waste not placed directly in the landfills is deposited temporarily in large-volume transfer/processing and direct transfer facilities. Approximately 55 of these facilities are located in Los Angeles County, seven of which are located within unincorporated areas (Los Angeles County 2017). The transfer stations and bin sites play a vital role in accommodating throughput to landfills and serving as collection and separation points for solid waste and recyclables.

Closed Landfills

There are more than 300 closed landfills in Los Angeles County, the majority of which are in incorporated cities. (Although closed landfill sites no longer accept solid waste, some require a great deal of maintenance required to keep them environmentally safe.) Within the County's unincorporated areas, there are two closed landfills: the Puente Hills Landfill (2800 South Workman Mill Road) and the Azusa Refuse Disposal Land Reclamation (325 North Azusa Avenue).

At inactive landfills, the County and others monitor landfill gas and maintain active landfill gas control systems, maintain the soil cover system, monitor groundwater and surface water quality, and maintain stormwater best management practices (BMPs) to ensure that closed landfills do not pollute surface water or groundwater or pose an explosion or health hazard.

Petroleum Storage

Petroleum hydrocarbons are the most commonly used group of chemicals. Petroleum hydrocarbons encompass a wide range of compounds, including but not limited to fuels, oils, paints, dry-cleaning solvents, and nonchlorinated solvents. These compounds are used in all facets of modern life and can cause soil and groundwater contamination if not handled properly.

Underground storage tanks and aboveground storage tanks that store petroleum are common sources of contamination into soils and groundwater in the County. Property owners with underground storage tanks and aboveground storage tanks on their land often include marketers who sell gasoline to the public, such as service stations and convenience stores, or non-marketers who use tanks solely for their own needs, such as fleet service operators or agricultural users. Leaking underground storage tanks can result in vapor intrusion from volatile organic compounds and benzene into homes when chemicals seep into the soil and groundwater and travel through soil as vapor. These vapors may then move up through the soil and into nearby buildings through cracks in the foundation, causing contamination of indoor air. While vapor intrusion is uncommon, it should be considered when there is a known source of soil or groundwater contamination nearby.

Hazardous Waste Transportation

In California, unless specially exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. DTSC maintains a list of

active registered hazardous waste transporters throughout the state. There are approximately 210 registered hazardous waste transporters in the County (DTSC 2022).

The process of transporting hazardous waste often involves transfer facilities. A *transfer facility* is any waste transportation–related facility that is not an on-site facility. These facilities include but are not limited to loading docks, parking areas, storage areas, and other similar areas. Although not all transfer facilities hold hazardous waste, an operator of a facility that accepts hazardous waste for storage, repackaging, or bulking must obtain formal authorization for those activities through the hazardous waste permit process. Hazardous waste transporters are exempt from storage facility permit requirements if they observe the limits on storage time and handling.

Hazardous waste transfer facilities fall into three main categories:

- An exempt transfer facility operated by a registered transporter.
- A transfer facility operating under the authority of a Resource Conservation and Recovery Act (RCRA) permit.
- A transfer facility operation under the authority of a Standardized Permit.

A transfer facility may be either permitted or exempt. The permit authorizes the activities and establishes the conditions that must be followed by the operator of a permitted transfer facility. Exempt facilities are owned and operated by the transporter of the waste.

Hazardous Materials Release Threats

When unexpectedly released into the environment, hazardous materials may create a significant hazard to the public or environment. Hazardous materials are commonly stored and used by a variety of businesses in the County and could be released into the environment through improper handling or during incident or accident conditions. The business plans and response systems discussed in the following sections are in place to help prevent threats of hazardous material releases.

Hazardous Materials Business Plans

The Los Angeles County Fire Department’s Health Hazardous Materials Division serves as the Certified Unified Program Agency (CUPA) for the unincorporated areas and for most of the County’s incorporated cities. A CUPA is an agency certified by DTSC to conduct the Unified Program, a collection of state-mandated programs formulated to protect people and the environment from the effects of hazardous materials handling, storage, and release. As part of the Unified Program, businesses that handle, store, or dispose of a hazardous substance at a given threshold quantity must prepare, submit, and implement hazardous business plans for emergency response to releases or threatened releases of hazardous materials. These business plans must include the facility’s inventory of hazardous materials handled, an emergency response plan for actual or threatened releases, an employee training program, and a facility map displaying the locations of reportable hazardous materials. The chemical inventories are updated and submitted annually, and the overall business plans are reviewed and submitted every three years or when significant changes in business operation occur (LACoFD 2009).

Risk Management Plans

One of the programs administered by the Los Angeles County Fire Department’s Health Hazardous Materials Division and its participating agencies is the California Accidental Release Prevention (CalARP) program (LACoFD 2009). The CalARP program requires the owner or operator of a stationary source with more than a threshold quantity of a regulated substance to prepare a risk management plan (RMP). The CalARP program combines federal and state program requirements for the prevention of accidental releases of listed substances into the atmosphere. Under the CalARP program, an RMP must include a hazard assessment program, an accidental release prevention program, and an emergency response plan. The RMP must be revised every five years or as necessary.

Airport Hazards

The main areas of concern related to airport hazards are overflight safety, airspace protection, flight patterns, and land use compatibility. Hazards associated with airports can have serious impacts on human safety and quality of life. In Los Angeles County, the Airport Land Use Commission (ALUC) coordinates airport land use compatibility and prepares airport land use plans for public-use airports. As listed below, there are 15 airports within the the County ALUC’s jurisdiction: five owned by the County, nine owned by other public agencies, and one that is privately owned (ALUC 2022). Most airports in the County are located within incorporated cities, but two airports are located in unincorporated areas: the Agua Dulce Airport in the Santa Clarita Valley Planning Area and the Catalina Airport in the Coastal Islands Planning Area.

- Agua Dulce Airport
- Compton/Woodley Airport
- Catalina Airport in the Sky
- Hawthorne Municipal Airport
- Hollywood Burbank Airport
- El Monte Airport
- Long Beach Airport
- Los Angeles International Airport
- Palmdale Regional Airport
- Santa Monica Municipal Airport
- Van Nuys Airport
- Whiteman Airport
- Brackett Field Airport
- Torrance Airport–Zamperini Field
- General William J. Fox Airfield

Los Angeles County also has 11 private-use airstrips, one private-use seaplane base, and 138 heliports registered with the Federal Aviation Administration (FAA) (County Planning 2015a).

Public Airport Hazard Prevention

Airport land use compatibility plans (ALUCPs) guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate near airports. They are intended to protect the safety of people, property, and aircraft on the ground and in the air near the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. ALUCPs are based on a defined area around an airport known as the *Airport Influence Area*, which is established by factors including airport size, operations, and configuration, as well as safety, airspace protection, noise, and overflight impacts on the land surrounding an airport. Although most major airports in Los Angeles County are situated in

incorporated areas, the Airport Influence Areas for the following airports are in or extend into unincorporated areas: Los Angeles International Airport, Agua Dulce Airport, Palmdale Regional Airport, and General William J. Fox Airfield in Lancaster (Los Angeles County 2022). ALUCPs do not affect existing land uses. Structure replacement and infill development are generally permitted under ALUCPs.

Military Airport Hazard Prevention

Guidelines set forth by the U.S. Department of Defense as part of its Air Installation Compatible Use Zone (AICUZ) program address land use compatibility and safety policies for military airport runways. The AICUZ was initiated in the 1970s to recommend land uses that may be compatible with noise levels, accident potential, and flight clearance requirements associated with military airfield operations. The Department of Defense prepared individual AICUZ plans for all major military airports. The objective of this program is to encourage compatible uses of public and private lands in the vicinity of military airfields through the local communities' comprehensive planning process. Edwards Air Force Base, which is partially located in the northern portions of the Antelope Valley Planning Area and partially located in Kern County, is subject to these regulations, as is Air Force Plant 42, located at the Palmdale Regional Airport.

Hazard Prevention at Private Airports

Safety-related hazards at private and special-use airports affect less land because of these airports' lower activity levels compared to public-use airports. In addition, the public has very limited access to or ability to use these facilities, given their ownership by private citizens or public agencies (such as the U.S. Bureau of Land Management or the U.S. Forest Service). Land use controls differ substantially between public airports and private airports. First, no Airport Influence Areas are identified around these airports and land use restrictions are much less defined than with public airports. Second, the California Department of Transportation's Division of Aeronautics controls private and special-use airports through a permitting process and is responsible for regulating operational activities at these airports.

Emergency Response and Evacuation Plans

Emergency response plans include elements to maintain the continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, state, and local levels for all types of disasters, including human-made and natural. It is the responsibility of government to undertake an ongoing comprehensive approach to emergency management to avoid or minimize the effects of hazardous events. Local governments have primary responsibility for preparedness and response activities.

The Safety Element of the General Plan addresses the protection of the community from risks associated with natural disasters such as earthquakes, slope instability, soils hazards, and fires (County Planning 2015b). The County's Integrated Waste Management Plan addresses hazardous materials management (LA County DPW 2020). Hazardous materials also are regulated by the business plans and risk management plans discussed above. The County All-Hazards Mitigation Plan prepared by the Los Angeles County Chief Executive Office, Office of Emergency Management (CEO OEM), sets strategies for both natural and human-caused hazards in the

County (Los Angeles County Chief Executive Office 2019) and is described below. The All-Hazards Mitigation Plan, which has been approved by the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency (CalEMA), includes a compilation of known and projected hazards in the County and describes historical disasters in the County. The CEO OEM also prepares the Operational Area Emergency Response Plan (OAERP), described below (Los Angeles County Chief Executive Office 2012). The Topanga Community Wildland Fire Evacuation Plan identifies the County's approach to ensure, in cooperation with public agencies, a safe and effective community response to a wildland fire evacuation (Los Angeles County Chief Executive Office 2009).

Los Angeles County General Plan 2035, Safety Element

The General Plan's Safety Element contains goals and policies to shape development so that risk of death, injuries, property damage, economic loss, and social dislocation resulting from natural and human-made hazards are reduced (Los Angeles County Planning 2022). The policy framework set forth in the Safety Element discourages new development from occurring in areas that have been designated as areas of high fire, flood, or seismic hazard.

All-Hazard Mitigation Plan

The Safety Element works in conjunction with the All-Hazards Mitigation Plan, which is prepared by the CEO OEM, which sets strategies for natural and human-caused hazards in the County. The All-Hazards Mitigation Plan was updated and adopted by the County Board of Supervisors in 2019 and profiles a wide variety of human-induced and natural hazards, including earthquakes, fires, climate change, dam failure, flood, tsunami, landslides, and wildfire. The plan is the second Countywide compilation of future mitigation strategies and programs and addresses all major natural and human-caused disasters within Los Angeles County that fall within the responsibility of County departments. The plan addresses the unincorporated areas of the County. Although the plan does not provide specific mitigation planning for each of the 88 cities within the County, many of the strategies and mitigation goals cross political boundaries and also apply to and cover the incorporated areas (Los Angeles County Chief Executive Office 2019).

Operational Area Emergency Response Plan

The OAERP establishes the County's emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts among the various emergency departments, agencies, special districts, and jurisdictions that compose the Los Angeles County Operational Area. The purpose of the OAERP is to incorporate and coordinate all County facilities and personnel, along with the jurisdictional resources of the cities and special districts within the County, into an efficient operational area organization capable of responding to any emergency using the California Standardized Emergency Management System, mutual aid, and other appropriate response procedures. The OAERP is an extension of the California Emergency Plan. The operational concepts covered in the plan focus on large-scale disasters that have the potential to generate unique situations (Los Angeles County Chief Executive Office 2012).

Renewable Energy Facilities

A variety of potential hazards are associated with renewable energy facilities. Some types of PV solar panels contain potentially hazardous materials, and battery storage facilities can catch fire. Both solar energy generation and battery storage systems, as well as electrical transmission facilities, produce EMFs.

Solar Photovoltaic Technology

Some types of solar PV technology involve crystalline silicon or thin-film cadmium telluride type panels. Potential environmental health and safety concerns are associated with the use of cadmium-containing PV panels. Elemental cadmium (Cd), which forms cadmium telluride (CdTe) when reacted with tellurium (Te), is a lung carcinogen and can cause detrimental effects on the kidneys and bone with long-term exposure (Fthenakis and Zweibel 2003).

According to a report from the National Renewable Energy Laboratory, the only pathways for human exposure to CdTe are via ingesting flakes or dust particles, or inhaling dust and fumes. In PV panels, the CdTe layers are encapsulated between layers of glass and are therefore stable. Unless the PV module is purposely ground to a fine dust, dust particles will not be generated. Studies have indicated that CdTe releases are unlikely to occur during accidental breakage of panels (Fthenakis and Zweibel 2003). In the case of fire, CdTe may pose an increased health risk. The melting point of CdTe is 1,041 degrees Celsius (°C) (1,906 degrees Fahrenheit [°F]), and evaporation starts at 1,050°C (1,922°F). The thin layers of CdTe are encapsulated between glass plates, which would be molten at these temperatures, making vapor emissions unlikely (Fthenakis and Zweibel 2003).

Battery Storage Facilities

Battery storage facilities that charge themselves from the existing electrical grid or other renewable power facilities (e.g., solar PV) during periods of the day when overall energy capacity is high and energy consumption is low, and then put the stored energy back onto the electrical grid when daily demand is at its peak, may include the use of lithium-ion batteries. If the battery storage facility is not properly designed, lithium-ion batteries could heat to the point of thermal runaway (i.e., failure of a single cell within the system cascading into a fire and explosion). This technology requires cooling of the battery components (cells/modules). To cool the battery components, the battery enclosure must be maintained at room temperature within a specific temperature range (approximately 68°F) using traditional air conditioner units (compressor-based refrigerant systems).

Electric and Magnetic Fields

EMFs are distinct phenomena that occur both naturally and as a result of human activity across a broad spectrum. Naturally occurring EMFs are caused by atmospheric conditions and Earth's geomagnetic field. The fields caused by human activity result from technological application of the electromagnetic spectrum for uses such as communications, appliances, and the generation, transmission, and local distribution of electricity. EMFs are vector quantities that have the properties of direction and amplitude (field strength). Solar power systems create EMFs from the PV arrays and the associated infrastructure, such as power lines and substation transformers.

Electric Fields

Electric fields from power facilities are created whenever the facilities are energized, with the strength of the field dependent directly on the voltage of the line or facility creating it. Electric field strength is typically described in units of kilovolts per meter. Electric field strength attenuates (gets weaker) rapidly as the distance from the source increases. Electric fields are reduced at many receptors because they are effectively shielded by most objects or materials such as trees or houses.

Unlike magnetic fields, which penetrate almost everything and are unaffected by buildings, trees, and other obstacles, electric fields are distorted by any object that is within the electric field, including the human body. Even trying to measure an electric field with electronic instruments is difficult because the devices themselves would alter the levels recorded. Determining an individual's exposure to electric fields requires the understanding of many variables, including the electric field itself, how effectively a person is grounded, and a person's body surface area within the electric field.

Electric fields in the vicinity of power lines or facilities can cause phenomena like the static electricity experienced on a dry winter day, or with clothing just removed from a clothes dryer, and may result in nuisance electric discharges when touching long metal fences, pipelines, or large vehicles.

Magnetic Fields

Magnetic fields from power lines or facilities are created whenever current flows through the power line or facility at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is typically measured in milligauss. Like electric field strength, magnetic field strength attenuates rapidly with distance from the source. Unlike electric fields, magnetic fields are not shielded by most objects or materials.

Comparison of Electric and Magnetic Fields

The nature of electric and magnetic fields can be illustrated by considering a household appliance. When the appliance is energized by being plugged into an outlet, but is not turned on so no current would be flowing through it, an electric field would be generated around the cord and appliance, but no magnetic field would be present. If the appliance is switched on, the electric field would still be present and a magnetic field would be created. The electric field strength is directly related to the magnitude of the voltage from the outlet, and the magnetic field strength is directly related to the magnitude of the current flowing in the cord and appliance.

This EIR impacts analysis (Section 3.10.2) does not consider EMFs in the context of CEQA for determination of environmental impact, because there is no agreement among scientists that EMFs create a health risk and there are no defined or adopted CEQA standards for defining health risks from EMFs. As a result, the EMF information is presented for informational purposes; see Section 3.10.2.5.

3.10.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act (Code of Federal Regulations Title 29, Parts 70–2400 [29 CFR 70–2400]) is implemented by the federal Occupational Safety and Health Administration (OSHA) and contains provisions with respect to hazardous materials handling. Federal OSHA requirements set forth in 29 CFR 1910 et seq. are designed to promote worker safety, worker training, and a worker’s right to know (OSHA 2022). In California, OSHA has delegated the authority to administer OSHA regulations to the State of California.

Hazardous Materials Transportation Act

Enacted in 1975, the Hazardous Materials Transportation Act (United States Code Title 49, Section 5101 et seq. [49 U.S.C. 5101 et seq.]) is the principal federal law regulating the transportation of hazardous materials. Its purpose is to “protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material in intrastate, interstate, and foreign commerce” under the authority of the U.S. Secretary of Transportation.

Resource Conservation and Recovery Act

The RCRA (42 U.S.C. Part 2) was the first major federal act regulating the potential health and environmental problems associated with hazardous and nonhazardous solid waste. RCRA and implementing regulations promulgated by USEPA provide the general framework for the national hazardous and nonhazardous waste management systems. This framework includes the determination of whether hazardous wastes are being generated, techniques for tracking wastes to eventual disposal, and the design and permitting of hazardous waste management facilities (USEPA 2021a).

RCRA amendments enacted in 1984 and 1986 began the process of eliminating land disposal as the principal method of hazardous waste disposal. Hazardous waste regulations promulgated in 1991 address site selection, design, construction, operation, monitoring, corrective action, and closure of disposal facilities. Additional regulations addressing solid waste issues are contained in 40 CFR Part 258.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (1986; 42 U.S.C. 9601 et seq.) was created to help communities plan for emergencies involving hazardous substances. This law requires hazardous chemical emergency planning by federal, state, and local governments; Native American tribes; and industry. It also requires industry to report on the storage, use, and releases of hazardous chemicals to federal, state, and local governments (USEPA 2021c).

Comprehensive Environmental Response, Compensation, and Liability Act

CERCLA (1980; 42 U.S.C. 1906 et seq.), also known as the Superfund Act, outlines the potential liability related to the cleanup of hazardous substances; available defenses to such liability; appropriate inquiry into site status under Superfund, the federal government’s program to clean up the nation’s uncontrolled hazardous waste sites; statutory definitions of hazardous substances

and petroleum products; and the petroleum product exclusion under CERCLA. CERCLA provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also establishes the National Contingency Plan, which provides guidelines and procedures necessary to respond to releases and threatened releases of hazardous substances (USEPA 2021b). Los Angeles County lies within USEPA Region 9, which has the responsibility for designation and oversight of Superfund sites on the National Priorities List.

Superfund Amendment and Reauthorization Act, Title III

Under the Superfund Amendment and Reauthorization Act, Title III (1986; 40 CFR 350–372), facilities are required to report the following items on USEPA Form R, the Toxic Chemical Release Inventory Reporting Form: facility identification, off-site locations where toxic chemicals are transferred in wastes, chemical-specific information, and supplemental information. Form R requires a facility to list the hazardous substances that are handled on-site and to account for the total aggregate releases of listed toxic chemicals for the calendar year. Releases to the environment include emissions to the air, discharges to surface water, and on-site releases to land and underground injection wells (USEPA 1987).

Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, and Related Authorities

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707), signed into law on November 23, 1988, amended the Disaster Relief Act of 1974 (Public Law 93-288). The Stafford Act constitutes the statutory authority for most federal disaster response activities, especially as they pertain to FEMA and FEMA programs (FEMA 2021).

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 (Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian tribal governments as a condition of mitigation grant assistance. This law amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need for state, local, and Indian tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. The Disaster Mitigation Act of 2000 also established a new requirement for local mitigation plans and authorized up to 7 percent of Hazardous Mitigation Grant Program funds available to a state for development of state, local, and Indian tribal mitigation plans (FEMA 2000).

Code of Federal Regulations, Title 14, Part 77

The FAA’s primary role is to promote aviation safety and control the use of airspace. Public-use airports that are subject to the FAA’s grant assurances must comply with specific FAA design

criteria, standards, and regulations. Land use safety compatibility guidance from the FAA is limited to the immediate vicinity of the runway, the runway protection zones at each end of the runway, and the protection of navigable airspace. The FAA enforces safety standards and investigates and corrects violations, as appropriate. 14 CFR Part 77, Safe Efficient Use and Preservation of the Navigable Airspace, establishes the federal review process for determining whether proposed development activities in the vicinity of an airport have the potential to result in a hazard to air navigation. 14 CFR Part 77 identifies criteria that govern which projects require notice to be filed with the FAA, as well as standards for determining whether a proposed project would represent an obstruction “that may affect safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities.” Objects that are identified as obstructions based on these standards are presumed to be hazards until an aeronautical study conducted by the FAA determines otherwise.

14 CFR Part 77.9, Construction or Alteration Requiring Notice, indicates that notice must be filed with the FAA for any construction or alteration of objects within 20,000 feet of a public-use airport runway when the height of the objects exceeds (i.e., is taller than) an imaginary surface with a 100:1 (1 foot upward per 100 feet horizontally) slope from the nearest point of the nearest runway. This requirement applies when the airport has at least one runway that exceeds 3,200 feet in length; for shorter runways, the notification surface has a 50:1 slope and extends 10,000 feet from the runway. For heliports, the notification surface has a 25:1 slope and extends 5,000 feet from the helicopter takeoff and landing area, commonly referred to as the *final approach and takeoff area*. The notification requirements apply to all public-use airports, military airports, and heliports. When FAA notification is required, it must be provided using FAA Form 7460-1, Notice of Proposed Construction or Alteration (ECFR 2022).

Title 40—Protection of Environment, Chapter I—Environmental Protection Agency (Continued) CFR Part 68—Chemical Accident Prevention Provisions

This part of the Code of Federal Regulations sets forth the list of regulated substances and thresholds, the petition process for adding or removing substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the state accidental release prevention programs approved under Section 112(r) (U.S. Government Information 2016).

State Laws, Regulations, and Policies

Hazardous Waste Control Law of 1972

The Hazardous Waste Control Act (Health and Safety Code Section 25100 et seq.) created the state hazardous waste management program, which is similar to but more stringent than the federal RCRA program. The act is implemented by regulations contained in California Code of Regulations (CCR) Title 26, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste

from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Hazardous Materials Release Response Plans and Inventory Law of 1985

The Hazardous Materials Release Response Plans and Inventory Law of 1985, aka the Business Plan Act (Health and Safety Code Sections 25500–25547.8), governs hazardous materials handling, reporting requirements, and local agency surveillance programs.

California Emergency Services Act (Assembly Bill 38, Chapter 372)

Assembly Bill (AB) 38 combined the Office of Homeland Security and the Office of Emergency Services into CalEMA. Under AB 38, CalEMA was responsible for overseeing and coordinating emergency preparedness, response, recovery, and homeland security activities in the state. In 2013, under the Governor’s reorganization plan #2, CalEMA was eliminated and restored to the Governor’s Office, renaming it the California Governor’s Office of Emergency Services (Cal OES 2022).

Hazardous Materials Release Cleanup (Assembly Bill 440, Chapter 588)

AB 440 (Chapter 588, 2013) authorizes a local agency to take cleanup action similar to that under the Polanco Redevelopment Act that the local agency determines is necessary, consistent with other state and federal laws, to remedy or remove a release of hazardous substances within the boundaries of the local agency. AB 440 allows the local agency to designate another agency, in lieu of the department or the regional board, to review and approve a cleanup plan and to oversee the cleanup of hazardous material from a hazardous material release site, under certain conditions. It also provides immunity to the local agency as long as the action is in accordance with a cleanup plan prepared by a qualified independent contractor, and approved by the department, a regional board, or the designated agency, and the cleanup is undertaken and properly completed. Finally, AB 440 authorizes the local agency to recover cleanup costs from the responsible party.

State Aeronautics Act

The State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires the preparation of an airport land use compatibility plan, or ALUCP, for each county in the state that has one or more public-use airports (Public Utilities Code Section 21675). An ALUCP is a planning document that contains policies for promoting safety and compatibility between public-use airports and the communities that surround them. The County has established an airport land use commission, or ALUC, in accordance with state law, to prepare land use compatibility plans for all public-use airports in the County and to review general plans, proposed changes to zoning codes and ordinances, land use actions and development projects, and airport development plans for consistency with compatibility policies. The ALUC retains land use development review of applicable projects until the affected local agencies’ general and specific plans have been deemed consistent with the ALUCP. See below for details about ALUCPs that govern activities in the County.

Asbestos Regulations

In 1990, the California Air Resources Board (CARB) issued an airborne toxic control measure (ATCM), which prohibited the use of serpentine aggregate for surfacing if the asbestos content

was 5 percent or more. In July 2000, CARB adopted amendments to the existing ATCM prohibiting the use or application of serpentine, serpentine-bearing materials, and asbestos-containing ultramafic rock for covering unpaved surfaces unless it has been tested using an approved asbestos bulk test method and determined to have an asbestos content that is less than 0.25 percent. In July 2001, CARB adopted a new ATCM for construction, grading, quarrying, and surface mining operations in areas with serpentine or ultramafic rocks. These regulations are codified in 17 CCR Section 93105. The regulations require preparation and implementation of an asbestos dust mitigation plan for construction or grading activities on sites greater than 1 acre in size with soils known to contain naturally occurring asbestos. The air districts enforce this regulation. In addition, Health and Safety Code Section 19827.5 prohibits the issuance of demolition permits by local and state agencies for any building or structure that has not submitted all required asbestos notifications to USEPA pursuant to 40 CFR Part 61.

California Occupational Safety and Health Administration (Cal/OSHA) Regulations.

Cal/OSHA sets forth regulations for the disturbance of asbestos-containing construction materials (ACCMs), including removal operations for all types of ACCMs. Cal/OSHA requires contractors and employers that remove ACCMs to be registered and consultants and technicians who conduct sampling and/or removal to be certified. In addition, the agency has developed standards for general industry and the construction industry hazardous waste operations and emergency response. Cal/OSHA ensures that employers must have controls to reduce and monitor exposure levels of hazardous materials, an informational program describing any exposure during operations and the inspection of drums and containers prior to removal or opening. Decontamination procedures and emergency response plans must be in place before employees begin working in hazardous waste operations (DIR 2022).

8 CCR Section 1529. This section of the regulations governs asbestos exposure for work identified in Section 1502, including demolition or salvage of structures where asbestos is present; removal or encapsulation of materials containing asbestos; construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos, installation of products containing asbestos; asbestos spill/emergency cleanup; transportation, disposal, storage, containment of, and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed; and excavation potentially involving exposure to asbestos as a natural constituent that is not related to asbestos mining and milling activities.

South Coast Air Quality Management District Rule 1403. The Clean Air Act regulates asbestos as a hazardous air pollutant, which subjects it to regulation by the South Coast Air Quality Management District under its Rule 1403. OSHA also regulates asbestos as a potential worker safety hazard. These rules and regulations prohibit emissions of asbestos from demolition or construction activities, require medical examinations and monitoring of employees engaged in activities that could disturb asbestos fibers, and require notice to federal and local government agencies prior to renovation or demolition activities that could disturb asbestos (SCAQMD 2007).

Lead Regulations

Because of its toxic properties, lead is regulated as a hazardous material. Lead is also regulated as a toxic air contaminant. State-certified contractors must perform inspection, testing, and removal (abatement) of lead-containing building materials in compliance with applicable health and safety and hazardous materials regulations, including those outlined in CCR Title 17.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CalARP) (19 CCR Division 2, Chapter 4.5) replaced the California Risk Management and Prevention Program as of January 1, 1997. The CalARP program encompasses both the federal “Risk Management Program” established in the Code of Federal Regulations (40 CFR Part 68) and the State of California program (19 CCR Division 2, Chapter 4.5).

The main objective of the CalARP program is to prevent accidental releases of those substances determined to potentially pose the greatest risk of immediate harm to the public and the environment, and to minimize the consequences if releases do occur. These substances, called *regulated substances*, include both flammable and toxic hazardous materials listed on the Federal Regulated Substances for Accidental Release Prevention and State of California Regulated Substances lists. Businesses that handle regulated substances in industrial processes above threshold quantity levels are subject to CalARP program requirements.

The CalARP program requires businesses to have planning activities intended to minimize the possibility of an accidental release by encouraging engineering and administrative controls. It is further intended to mitigate the consequences of an accidental release, by requiring owners or operators of facilities to develop and implement an accident prevention program.

California Emergency Plan

The California Emergency Plan describes how response to natural or human-caused emergencies occurs within the state (Cal OES 2017). The plan describes methods for conducting emergency operations; emergency services of government agencies; how resources are mobilized; how the public is informed; how continuity of government is maintained during an emergency; hazard mitigation (actions to reduce risk); and preparedness and recovery from disaster. Hazards and vulnerabilities considered in the plan include earthquake, flood, fire, landslide, tsunami, hazardous materials emergencies, energy disruption, and others.

Prospective School Siting

Section 17210 et seq. of the Education Code and Sections 21151.2, 21151.4, and 21151.8 of the Public Resources Code require that prospective school sites be reviewed to determine that such sites are not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of hazardous substance pipelines. These laws also require consultation with local hazardous materials agencies and air quality districts to ensure that sites within 0.25 mile of a school that handle or emit hazardous substances would not potentially endanger sensitive receptors. See Section 3.4, *Air Quality*, for details about potential sensitive receptors in unincorporated areas of the County.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035 and 2019 All-Hazards Mitigation Plan

The Safety Element of the General Plan, in conjunction with the All-Hazard Mitigation Plan prepared by the CEO OEM, sets strategies for natural and man-made hazards in the County. The All-Hazard Mitigation Plan, which has been approved by FEMA and CalEMA, includes a compilation of known and projected hazards in the County, including earthquakes, landslides, floods, wildfires, tsunamis, and other hazards (County Planning 2015b; Los Angeles County Chief Executive Office 2019).

Airport Land Use Plans

The County ALUC has adopted the comprehensive *Los Angeles County Airport Land Use Compatibility Plan*, which covers all airports within its jurisdiction (ALUC 2004a). The ALUC also has adopted separate ALUCPs for Fox Airfield and Brackett Field Airport (ALUC 2004a, 2015). An ALUCP for an individual airport supersedes the Countywide ALUCP.

The General William J. Fox ALUCP sets forth land use compatibility policies applicable to future development in the vicinity of the airport (ALUC 2004b). The policies are designed to ensure that future land uses in the surrounding area will be compatible with potential long-range aircraft activity at the airport. Specific land use compatibility criteria address noise, safety, airspace protection, and overflight. The General William J. Fox ALUCP area of influence (i.e., its planning boundary) includes portions of the County and the city of Lancaster where land uses could be negatively affected by noise or safety impacts from present or future aircraft operations at the airfield, and where land uses could negatively affect the operation of aircraft at the airport.

The Brackett Field ALUCP contains land use compatibility policies “that are intended to ensure that future land uses in the surrounding area will be compatible with potential long-range aircraft activities at the airport, and that the public’s exposure to airport safety hazards and noise impacts are minimized” (ALUC 2015). Specific land use compatibility policies address noise, safety, airspace protection, overflight compatibility, and special circumstances. The Brackett Field Airport area of influence (i.e., its planning boundary) extends approximately 2.7 miles from the airport runways. Within this area, the ALUCP establishes the maximum height that objects on the ground can reach without potentially creating constraints or hazards to the use of the airspace by aircraft and identifies locations exposed to potentially disruptive levels of aircraft noise and/or areas where the risk of an aircraft accident poses heightened safety concerns for people and property on the ground. The specific local agencies with land use responsibilities within the airport influence area include the County (in the unincorporated areas) as well as the Cities of Claremont, Glendora, La Verne, Pomona, and San Dimas.

3.10.2 Impact Analysis

3.10.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact related to hazards and hazardous materials if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials;
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment;
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses;
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area; or
- f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

3.10.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by the County, which are set forth in Section 3.10.2.1, *Significance Criteria*, to determine whether the Draft 2045 CAP, including future projects facilitated by Draft 2045 CAP measures and actions, would result in significant impacts on the environment related to hazards and hazardous materials. Impacts related to hazards and hazardous materials are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.10.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar PV projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG

emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of hazards and hazardous materials–related impacts. These and other relevant measures and actions include: (1) Measure ES3, Increase Renewable Energy Production (because it could facilitate the installation of microgrids combined with solar energy generation and batteries to support grid and building resilience); Measure ES4, Increase Energy Resilience (because it could facilitate deployment of distributed energy resources and microgrids); and Measure W1, Institutionalize Sustainable Waste Systems and Practices (because it could affect existing or future solid waste facilities).

Renewable energy generation and infrastructure projects could also be facilitated by measures and actions associated with Strategy 1, Decarbonize the Energy Supply; Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; Measures T7, T8, and T9, regarding the electrification of vehicles; and Strategy 5, regarding the electrification of buildings. The development of such projects could cause impacts related to hazards or hazardous materials.

The timeframe during which the implementation of these actions and measures would cause impacts related to hazards or hazardous materials would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually creates a significant hazard to the public or the environment for one or more of the specified reasons. If an impact occurs, it would occur immediately and could be short term (e.g., a spill that is remediated promptly) or continue in effect for the long term (e.g., hazardous waste event releasing pollutants that remain in the air, water, or soils permanently). Impacts of projects facilitated by the Draft 2045 CAP that result in a safety hazard or excessive noise for people residing or working in the project area would begin upon initiation of the condition, last for as long as the safety hazard or noise source remains, and conclude when the hazard or noise source is removed. Impacts of projects facilitated by the Draft 2045 CAP that result in impairment of the implementation of, or physical interfere with, an adopted emergency response plan or emergency evacuation plan technically would begin as soon as either the project generates an obstruction or delay or such a plan is adopted. Impacts would remain until the obstruction or delay is remediated, or until the adopted plan is amended to alleviate the interference with the success of its implementation. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG

reduction targets. Specific hazards and hazardous materials-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials.

Impact 3.10-1: Projects facilitated by the Draft 2045 CAP would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. Construction activities in furtherance of projects facilitated by Draft 2045 CAP measures and actions could involve the use of standard construction equipment and materials, which would include the following commonly used materials and substances: fuel, oils, and lubricants; hydraulic fluid; paints and thinners; and cleaning solvents to maintain vehicles and motorized equipment. Routine use of any of these substances could pose a hazard to people or the environment and, unless handled in accordance with regulatory requirements, could cause a potentially significant impact.

Numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials. See Section 3.10.1.3, *Regulatory Setting*, for details. For example, the Health and Safety Code and the California Code of Regulations require preparation of a hazardous materials business plan/spill prevention control and countermeasures plan (HMBP/SPCC plan) when conditions have been determined to warrant regulation; when required, such plans must be prepared before construction. HMBPs include BMPs for the transport, storage, use, and disposal of hazardous materials and waste. HMBPs also include information regarding construction activities, worker training procedures, and hazardous materials inventory procedures.

Any fuel tanks required for a project facilitated by the Draft 2045 CAP measures and actions would be maintained and operated according to all federal, state, and local regulations during construction and operation, and hazardous materials storage would be detailed in an SPCC plan. Refueling and general maintenance for construction equipment, such as changing fluids and lubricating parts, also would be subject to sufficient containment capabilities and according to measures outlined in an SPCC plan.

During construction of projects facilitated by Draft 2045 CAP measures and actions, waste disposal and collection receptacles would be located on-site to ensure the proper disposal of hazardous materials in accordance with regulatory requirements. Additionally, construction activity would be subject to the California Construction Stormwater Permit (Construction General Permit) and its required storm water pollution prevention plan (SWPPP), which include BMPs to control potentially contaminated runoff from construction sites. See Section 3.11, *Hydrology and Water Quality*, for information about the Construction General Permit and SWPPPs.

Compliance with applicable federal, state, and local laws and regulations and oversight would effectively reduce the inherent hazard associated with routine transport, use, storage, and disposal activities. Therefore, impacts resulting from projects facilitated by Draft 2045 CAP measures and actions would be less than significant.

Mitigation: None required.

Criterion b) Whether the Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.

Impact 3.10-2: The Project, as a result of solar PV and other projects facilitated by the Draft 2045 CAP measures and actions, could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. (*Less than Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. During the construction of projects facilitated by Draft 2045 CAP measures and actions, including solar PV projects, construction activities may involve the transportation, storage, use, or disposal of a variety of hazardous materials, including batteries, hydraulic fluid, diesel fuel, gasoline, grease, lubricants, paints, solvents, and adhesives. Additionally, should future developments be affected by the presence of known hazardous materials sites, the removal and handling of hazardous wastes could lead to an accidental release. If, during the course of development, hazardous materials were accidentally released into the environment, a significant impact would result.

As noted previously, numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials. The required HMBP and SPCC plan discussed above would include procedures that would help prevent the accidental release of hazardous

materials into the environment. A standard HMBP and SPCC plan would include BMPs as well as spill control and spill response measures to ensure any release would be handled appropriately. The SPCC plan would include appropriate measures to ensure that work activities cease in the event of a spill, so that the construction contractor could contain any release and enact cleanup protocols, which would include notifying appropriate agencies and using materials stored on-site (e.g., absorbent pads) to minimize the spread or exposure.

Accidents or mechanical failure involving heavy equipment could result in the accidental release of fuel, lubricants, hydraulic fluid, or other hazardous substances. These types of spills on construction sites are typically small, localized, and cleaned up in a timely manner. Construction contractors are contractually responsible for their hazardous materials; the contracts require them to store and dispose of these materials properly in compliance with state and federal laws, including implementing a HMBP/SPCC plan. As discussed previously, projects facilitated by Draft 2045 CAP measures and actions would require coverage under the Construction General Permit (or related stormwater permit). Thus, they would be subject to the protections included in a SWPPP, which would outline BMPs to contain a potential release and prevent any such release from reaching an adjacent waterway or stormwater collection system (e.g., erosion control, sediment control, and waste management).

Because the locations of future projects facilitated by Draft 2045 CAP measures and actions are not known at the time of this analysis, it is not known whether new projects would be proposed on or near known hazardous materials sites. However, if a future project were to be planned or near a known hazardous materials site, then previously or currently contaminated soil or groundwater may be encountered during construction activities (e.g., grading, excavation, utility installation, soil remediation). Compliance with applicable laws and regulations would assure that any resulting impact would be less than significant.

Projects facilitated by Draft 2045 CAP measures and actions may include small-scale distributed solar facilities on buildings and/or ground-mounted, utility-scale solar energy generation facilities and supporting infrastructure. These projects may include the use of cadmium telluride (CdTe) solar technology modules. CdTe cells are made by using semiconductors that optimize the efficiency of transforming solar radiation into electricity and are made by using p-n heterojunctions containing a p-doped cadmium telluride layer and an n-doped cadmium sulfide layer, which may also be made of magnesium zinc oxide. These materials can be toxic and can pollute the environment if disposed of improperly (Solarbuy.com 2021). Should CdTe solar modules used for projects facilitated by Draft 2045 CAP measures and actions become damaged or broken during installation to the level of creating CdTe dust particles, these modules could result in a release of cadmium, which is a toxic metal.

The amount of cadmium that could be released would be much less than the estimated average of 7 grams that would be contained in each cubic-meter panel (Fthenakis and Zweibel 2003). Only the CdTe located along the fracture lines would have the potential to be released from the solid CdTe and cadmium sulfide film of the modules. However, solar module design includes a strong laminate material that would result in cracking instead of shattering and would not produce finely

ground material (Solarbuy.com 2021). Contact with natural rainwater is not anticipated to result in cadmium contamination of the underlying soil.

Broken CdTe modules are hazardous waste and require proper disposal if not recycled; this impact would be significant. Mitigation Measure 3.10-2 would be implemented for solar PV projects facilitated by the Draft 2045 CAP to ensure that CdTe modules are disposed of or recycled to avoid significant impacts related to human exposure or environmental contamination.

Projects facilitated by Draft 2045 CAP measures and actions may also include utility-grade lithium-ion battery storage facilities. If the battery storage facility is not designed properly, lithium-ion batteries could heat to the point of thermal runaway (i.e., failure of a single cell within the system cascading into a fire and explosion). This technology requires cooling of the battery components (cells/modules). The battery components would require cooling, by maintaining the battery enclosure at room temperature within a specific temperature range (approximately 68°F) using traditional air conditioner units (compressor-based refrigerant systems). The battery enclosures would provide an additional level of protection by providing containment in the event of a fire. Features such as electronic monitoring systems, alarms, and circuit breakers would likely be incorporated in the design to lower the possibility of a thermal runaway chain reaction and an associated significant hazard to the public or the environment through due to a reasonably foreseeable upset.

Given compliance with applicable federal, state, and local laws and regulations and the applicable BMPs and HMBP/SPCC plan, hazards and hazardous materials impacts resulting from projects facilitated by Draft 2045 CAP measures and actions would be less than significant, except that impacts from solar PV installation projects that include the use of CdTe modules would be significant if the panels are ground to the level of dust particles or experience fire that reaches the CdTe melting point of 1,906 degrees Fahrenheit. The following mitigation measure would reduce this impact. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.10-2: The County shall require applicants of solar PV installation projects that include the use of CdTe modules to dispose of panels or recycle panels in accordance with current local, state, and federal regulations. Broken and end-of-project-life PV modules, materials, and components shall be:

- Stored on-site in a manner that complies with federal and state laws until recycling or disposal actions can be taken.
- Stored on-site no longer than allowed by federal and state laws.
- Recycled in accordance with federal and state laws applicable at that time.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste from broken CdTe modules is disposed of properly if not recycled. Implementing this measure would reduce the impact to a less-than-significant level.

Criterion c) Whether the Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses.

Impact 3.10-3: Projects facilitated by the Draft 2045 CAP would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. (*Less than Significant with Mitigation Incorporated*)

Some populations (e.g., children, elderly, sick, or disabled persons) are more susceptible to health impacts from hazardous materials than the general population. Hazardous materials used near facilities such as schools, daycare centers, senior living communities, and hospitals must consider potential health impacts on these populations, often referred to as *sensitive receptors*.

Construction or redevelopment on contaminated properties that could generate vapors or fugitive dust—containing contaminants may pose a health risk to these populations. In addition, commercial businesses near sensitive receptors may have hazardous emissions or handle hazardous or acutely hazardous materials or wastes that could pose a health risk to these sensitive receptors.

As discussed in Section 3.4, *Air Quality*, several sensitive receptors and receptor locations are situated within the unincorporated County areas, and it is not known at the time of EIR preparation whether projects facilitated by Draft 2045 CAP measures and actions would be constructed near one or more of them. Typically, developments that would handle hazardous materials or discharge hazardous emissions within 0.25 mile of a sensitive receptor are at risk of exposing sensitive receptors to hazardous materials and emissions. Projects facilitating Draft 2045 CAP measures and actions could create hazardous emissions. Impacts generated by the release of hazardous emissions near sensitive receptors would temporarily occur during construction phases of such projects.

With compliance with Section 17210 et seq. of the Education Code and with Sections 21151.2 and 21151.4 and 21151.8 of the Public Resources Code, any prospective school site would be reviewed to determine that it is not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of a hazardous substance pipeline. Compliance with these laws requires consultation with local hazardous materials agencies and air quality districts, to assure that sites located within 0.25 mile of a school that handle or emit hazardous substances would not endanger sensitive receptors, including students.

Projects that would be facilitated by Draft 2045 CAP measures and actions may include small-scale distributed solar facilities on buildings and/or ground-mounted, utility-scale solar energy generation facilities. These projects may include the use of CdTe solar technology modules. Although elemental cadmium is an acutely toxic substance, human exposure from CdTe PV modules would likely occur only if CdTe fine particles are inhaled. Fine particles would not be generated unless the modules were ground up or vaporized in a fire (Fthenakis and Zweibel 2003). This impact would be significant. Implementation of Mitigation Measure 3.10-2 would assure that future PV solar projects facilitated by the Draft 2045 CAP would properly dispose of or recycle CdTe modules to avoid significant impacts related to human exposure and/or environmental contamination.

The other federal, state, and local laws and regulations that regulate hazardous materials, discussed in Impacts 3.10-1 and 3.10-2 above and Impact 3.10-4 below, would also be applicable to any activities involving handling hazardous materials or releasing hazardous emissions within 0.25 mile of a sensitive receptor. Compliance with applicable federal, state, and local laws and regulations would assure that impacts on sensitive receptors would be less than significant, except for impacts from solar PV installation projects that include the use of CdTe modules if the panels are ground to the level of dust particles or experience fire that reaches the CdTe melting point of 1,906 degrees Fahrenheit, which would be significant.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste from broken CdTe modules is disposed of properly if not recycled. Implementing this measure would reduce the impact to a less-than-significant level.

Criterion d) Whether the Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

Impact 3.10-4: Projects facilitated by the Draft 2045 CAP may be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. (Less-than-Significant Impact)

The provisions in Government Code Section 65962.5, commonly referred to as the Cortese List, require DTSC to compile and maintain a list of hazardous waste and substances sites, including State Water Resources Control Board leaking underground storage tank sites, active cease-and-desist orders and cleanup and abatement orders, and certain solid waste disposal sites and hazardous waste facilities. As discussed in the context of criterion a), there are several hazardous materials sites within the County's unincorporated areas, many of which are included on the Cortese List. If projects facilitated by Draft 2045 CAP measures and actions are proposed on or near hazardous materials sites that have been included on the Cortese List, then the risk of creating a significant hazard to the public or environment would increase, as contaminated soil and/or groundwater could be exposed during ground-disturbing activities. A significant impact would occur if projects facilitated by the Draft 2045 CAP measures and actions on or near a site listed on the Cortese List would expose hazardous materials to people or the environment.

The previously discussed laws governing the use, transportation, storage, and disposal of hazardous materials would apply to all development proposed on or near Cortese List sites. In addition, sites listed on the Cortese List are under the jurisdiction of a regulatory agency (e.g., DTSC, the Los Angeles Regional Water Quality Control Board, or a local agency). As such, the overseeing regulatory agency is in the process of requiring the owners/operators of listed sites to bring their sites into compliance. This includes requiring sites with spills or releases to soil and/or groundwater to investigate and clean up their sites to levels that no longer pose risks to people or the environment. The listings on the Cortese List are public records. At the time when a specific project facilitated by the Draft 2045 CAP measures and actions is implemented, the current status

of nearby sites on the Cortese List would be checked and the project planned accordingly to comply with the overseeing regulatory agency requirements, if any. Compliance with applicable federal, state, and local laws and regulations would ensure that any impacts would be less than significant.

Mitigation: None required.

Criterion e) Whether the Project would, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area.

Impact 3.10-5: Projects facilitated by the Draft 2045 CAP would not, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. Because the Draft 2045 CAP could facilitate projects proposed to be located within a delineated safety or noise hazard zone, it could, due to those projects, result in a safety hazard or excessive noise for people residing or working in the area.

The FAA identifies and regulates impacts related to air traffic and related safety hazards. The FAA's Federal Aviation Regulation at 14 CFR Part 77 establishes standards and notification requirements for objects affecting navigable airspace. Such objects could be power line poles that may be required to connect utility-scale renewable energy projects facilitated by Draft 2045 CAP measures and actions to the regional power grid. Without proper standards and noticing, tall new power line poles and similar structures could pose a safety hazard to aircraft navigating airspace in the area where such structures previously did not exist. These impacts are regulated at the federal level; as such, all new developments that may be proposed within any airport safety or noise hazard zones, or that would include components that may cause a safety hazard, would be obligated to comply with FAA regulations. Additionally, any development proposed in a delineated safety or noise hazard zone (as provided by the County ALUP) would be required to comply with any requirements included in the County ALUP, such as land use compatibility criteria designed to address land uses that could be negatively affected by aviation noise or safety impacts associated with existing or future aircraft operations in the vicinity of airports in the County. The land use compatibility criteria reduce the potential for proposed projects near the airports to be negatively affected by aircraft noise and aviation hazards. Through compliance with FAA regulations and County ALUC requirements, impacts resulting from projects facilitated by Draft 2045 CAP measures and actions would be less than significant.

Mitigation: None required.

Criterion f) Whether the Project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact 3.10-6: Projects facilitated by the Draft 2045 CAP would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County’s GHG emissions, and it would support development already allowed under the General Plan’s land use assumptions in the 2021–2029 Housing Element. The 2019 County All-Hazards Mitigation Plan does not include specific evacuation routes to be used in the event of an emergency (Los Angeles County Chief Executive Office 2019). However, the General Plan includes a map of freeway and highway disaster routes, many of which cross through portions of the unincorporated County (County Planning 2015b). Depending on their nature, projects that would be facilitated by the Draft 2045 CAP measures and actions may require construction on major roadways or the closure of major roadways to facilitate construction activities. Should construction activities within major roadways or road closures be required to facilitate projects implementing Draft 2045 CAP measures and actions, such activities could obstruct major roadways and could hinder evacuation procedures.

Although the locations and details of projects that would be facilitated by Draft 2045 CAP measures and actions are not known at the time of this analysis, construction activities associated with such projects could obstruct major roadways and conflict with an emergency response or evacuation plan, which would be a significant impact. To reduce this impact, the County would implement Mitigation Measure 3.15-1, which would require project applicants and construction contractors to coordinate with relevant County departments and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area. Because any impacts on the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact would occur pursuant to implementation of Mitigation Measure 3.15-1, the impacts associated with implementation of the Draft 2045 CAP measures and actions would be reduced to a less-than-significant level.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Implementing Mitigation Measure 3.15-1 would reduce the impact to a less-than-significant level because the traffic control plan would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions.

3.10.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts associated with hazards and hazardous materials, the geographic area of consideration (i.e., the cumulative impacts study area) consists of the unincorporated areas of Los Angeles County. Impacts could result at various locations within this area from the time when on-the-ground work in furtherance of a project facilitated by

Draft 2045 CAP measures and actions is initiated and could last until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.10-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. (*Less-than-Significant Cumulative Impact*)

The 16 Superfund sites located in Los Angeles County are located primarily inland, between the San Fernando and Norwalk areas, and generally include landfills, manufacturing facilities, processing plants, and mining sites (Bredehoft 2021). As discussed above, several other hazardous materials sites are known to exist in the unincorporated areas. Construction and operational activities for past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015b; Los Angeles County 2021) and projects facilitated by the Draft 2045 CAP, would use standard construction equipment and materials, including fuel, oils, and lubricants, hydraulic fluid, paints and thinners, and cleaning solvents to maintain vehicles and motorized equipment. Such activities could pose a hazard to people or the environment unless handled in accordance with regulatory requirements. Similarly, the operation of landfills and manufacturing facilities could contribute to such hazards.

However, numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials that lessen cumulative impacts. For example, the Health and Safety Code and the California Code of Regulations require preparation of a hazardous materials business plan/spill prevention control and countermeasures plan, or HMBP/SPCC plan, when conditions have been determined to warrant regulation. When required, such plans must be prepared prior to construction and/or operation. HMBPs include BMPs for the transport, storage, use, and disposal of hazardous materials and waste. HMBPs also include information regarding construction activities, worker training procedures, and hazardous materials inventory procedures. Refueling and general maintenance for construction equipment, such as changing fluids and lubricating parts, also would require sufficient containment capabilities and must follow measures outlined in an SPCC plan. Compliance with these independently enforceable obligations would ensure that hazardous materials cumulative impacts would not be significant, and that projects facilitated by the Draft 2045 CAP would not result in a cumulatively considerable contribution to cumulative impacts. Accordingly, the Project would have a less-than-significant cumulative impact regarding the routine use of hazardous materials.

Mitigation: None required.

Criterion b)

Impact 3.10-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The construction and operation of past, present, and reasonably foreseeable future projects would involve the transportation, storage, use, or disposal of a variety of hazardous materials, including PV panels, hydraulic fluid, diesel fuel, gasoline, grease, lubricants, paints, solvents, and adhesives. If, during past, present, and reasonably foreseeable future projects, hazardous materials were accidentally released into the environment, a potentially significant impact on the environment and/or public could result. As noted previously, numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials. Nonetheless, given the broad use and storage of hazardous materials, including CdTe cells at solar facilities in the Antelope Valley and other unincorporated areas of Los Angeles County, and the potential for their accidental release, the cumulative impact of past, present, and reasonably foreseeable future projects added to the Project's impacts would be significant.

The Draft 2045 CAP would make a cumulatively considerable incremental contribution to this significant cumulative impact. The Draft 2045 CAP's contribution would be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) with the implementation of Mitigation Measure 3.10-2. With the implementation of this measure, the Project-specific, incremental contribution to impacts associated with reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment over the span of the Draft 2045 CAP, would not be cumulatively considerable because any Project-specific hazardous waste from broken CdTe modules would be properly disposed of if not recycled. Thus, cumulative impacts would be less than significant.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: The Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) because implementing Mitigation Measure 3.10-2 would ensure that hazardous waste from broken CdTe modules from projects facilitated by the Draft 2045 CAP would be disposed of properly if not recycled and would not result in an incremental contribution to a significant cumulative impact.

Criterion c)

Impact 3.10-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Past, present, and reasonably foreseeable future projects that would handle hazardous materials or discharge hazardous emissions within 0.25 mile of a sensitive receptor are at risk of exposing sensitive receptors to hazardous materials and emissions. Cumulative projects that include solar

facilities may include the use of CdTe solar technology modules, which can be toxic if released to the environment. Given the broad use and storage of hazardous materials, including CdTe cells at solar facilities in Antelope Valley and other unincorporated areas of Los Angeles County, and for the potential for their accidental release in the vicinity of sensitive land uses, when the Project's impacts are added, the cumulative impact would be significant.

The Draft 2045 CAP would make a cumulatively considerable contribution to this significant cumulative impact. The Draft 2045 CAP's contribution would be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) with the implementation of Mitigation Measure 3.10-2. With the implementation of this measure, the Project-specific, incremental contribution to impacts associated with a release of hazardous emissions, materials, substances, or waste within 0.25 mile of sensitive land uses over the span of the Draft 2045 CAP, would not be cumulatively considerable, because any Project-specific hazardous waste from broken CdTe modules would be disposed of properly if not recycled. Cumulative impacts would be less than significant.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: The Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) because implementation of Mitigation Measure 3.10-2 would ensure that any hazardous waste from broken CdTe modules from projects facilitated by the Draft 2045 CAP would be disposed of properly if not recycled, and would not result in an incremental contribution to a significant cumulative impact.

Criterion d)

Impact 3.10-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impacts related to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. (*Less-than-Significant Cumulative Impact*)

As discussed in Section 3.10.1.2, there are hazardous materials and waste sites in the unincorporated areas of the County, many of which are included on the Cortese List. If past, present, and reasonably foreseeable future projects are sited near hazardous materials and waste sites that have been included on the Cortese List, then the risk of creating a significant hazard to the public or environment would increase, as potentially contaminated soil and/or groundwater could be exposed during ground-disturbing activities. However, for all cumulative projects as well as projects facilitated by the Draft 2045 CAP measures and actions, the status of nearby sites on the Cortese List would be checked and would be planned accordingly to comply with the overseeing regulatory agency rules that require investigations and cleanup of hazardous materials sites to levels that no longer pose risks to people or the environment. Thus, cumulative impacts related to hazardous materials and hazardous waste sites would not be significant.

The Draft 2045 CAP would make a less-than-cumulatively- considerable and therefore less-than-significant incremental contribution to this cumulative impact, because the status of nearby sites on the Cortese List would be checked and projects facilitated by the Draft 2045 CAP would be planned

accordingly to comply with the overseeing regulatory agency rules that require investigations and cleanup of hazardous materials sites to levels that no longer pose risks to people or the environment. Impacts would not be cumulatively considerable, and impacts would be less than significant.

Mitigation: None required.

Criterion e)

Impact 3.10-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative safety hazards or excessive noise for people residing or working in the project area. (*Less-than-Significant Cumulative Impact*)

There are 15 airports in Los Angeles County (ALUC 2004a), all located within 2 miles of at least a portion of the unincorporated County. Past, present, and reasonably foreseeable future projects proposed to be located within a delineated safety or noise hazard zone could result in a safety hazard or excessive noise for people residing or working in the area. However, all cumulative projects as well as projects facilitated by the Draft 2045 CAP measures and actions would comply with federal airport safety regulations and incorporate land use compatibility criteria that reduce the potential for them to be negatively affected by aircraft noise and aviation hazards. Thus, cumulative impacts related to airport safety and noise hazards would not be significant.

The Draft 2045 CAP would contribute a less-than-significant and less-than-significant incremental contribution to this cumulative impact because the projects that would be facilitated by the Draft 2045 CAP would comply with federal airport safety regulations and incorporate land use compatibility criteria that reduce the potential for them to be negatively affected by aircraft noise and aviation hazards. Impacts would not be cumulatively considerable and impacts would be less than significant.

Mitigation: None required.

Criterion f)

Impact 3.10-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The General Plan includes a map of freeway and highway disaster routes, many of which cross through portions of the unincorporated County (County Planning 2015b). Past, present, and reasonably foreseeable future projects may require construction in major roadways that could hinder evacuation procedures. Thus, when the Project's impacts are added, a significant cumulative impact would exist related to impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

The Draft 2045 CAP would make a cumulatively considerable incremental contribution to this significant cumulative impact on emergency response and/or evacuation plans because projects facilitated by the Draft 2045 CAP could obstruct major roadways. This incremental contribution would be reduced to less than cumulatively considerable with implementation of Mitigation

Measure 3.15-1, which would require project applicants and construction contractors to coordinate with relevant County departments and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area. Cumulative impacts would be reduced to a less-than-significant level.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: The Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) because the traffic control plan would avoid or substantially reduce any Project-specific potential impairment of an emergency response or evacuation plan that may result during construction activities associated projects facilitated by the Draft 2045 CAP measures and actions.

3.10.2.5 Non-CEQA Public Concerns or Hazards

Recognizing there is a great deal of public interest and concern regarding potential health effects and hazards from exposure to EMFs, the following discussion provides information regarding EMFs as they relate to public health and safety. This discussion does not consider EMFs in the context of CEQA for determination of environmental impacts because there is no agreement among scientists that EMFs create a health risk and because there are no defined or adopted CEQA standards for defining health risks from EMFs. As a result, the EMF information provided below is for informational purposes.

Electric and Magnetic Fields

Solar panels and associated electrical transmission facilities, such as power lines and substations, create EMFs. EMFs attenuate rapidly with distance from the source. Given the setbacks and rights-of-way that future projects facilitated by the Draft 2045 CAP measures and actions would be required to follow, these measures and actions are not anticipated to result in levels of EMFs at nearby residences or other sensitive locations, such as schools or daycare facilities, that would result in adverse effects on public health or safety.

On January 15, 1991, the California Public Utilities Commission (CPUC) initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields from utility facilities and power lines. CPUC created a working group of interested parties, the California EMF Consensus Group, to advise on this issue. The California EMF Consensus Group's fact-finding process was open to the public, and its report incorporated public concerns. Its recommendations were filed with CPUC in March 1992. Based on the work of the California EMF Consensus Group, written testimony, and evidentiary hearings, CPUC's decision (93-11-013) was issued on November 2, 1993, to address public concern about possible EMF health effects from electric utility facilities. In August 2004, CPUC opened an Order Instituting Rulemaking to update CPUC's policies and procedures related to EMFs emanating from regulated utility facilities. The final decision was issued in D.06-01-042. The decision's conclusions and findings included a statement that a direct link between exposure to EMF and human health effects has yet to be proven despite numerous studies, including a study ordered by CPUC and conducted by the California Department of Health Services.

This continues to be CPUC's position regarding standards for EMF exposure. The State of California has not determined that any risk would merit adoption of any specific limits or regulations regarding EMF levels from electric power facilities. Presently, there are no applicable federal, state, or local regulations related to EMF levels from power facilities. The County agrees with the state's position in this regard.

Induced Current

In addition, stray voltage could occur if electrical equipment or solar panels were not maintained properly. Induced current or stray voltage has the potential for adverse health effects if not properly grounded. As part of the regular operations and maintenance measures of future utility-scale renewable energy projects, maintenance staff would examine solar panels during annual maintenance inspections throughout the operational life of the project to confirm proper grounding and ensure no stray voltage issues. Therefore, no health effects would be anticipated to occur from stray voltage.

Communication Signals

Future utility-grade solar and electrical transmission infrastructure projects that could be facilitated by the Draft 2045 CAP measures and actions may also affect communication signals due to EMF in two ways: (1) solar panels and their associated transmission lines may generate electromagnetic noise, which could interfere with telecommunications services such as radar, microwave, television, and radio transmissions; or, more commonly, (2) solar panels would create physical obstructions that distort communications signals. The types of communications systems that may be affected include microwave systems, off-air television broadcast signals, land mobile radio operations, and mobile telephone services. Future solar power and electrical transmission facility projects would comply with Federal Communications Commission requirements.

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3.11 Hydrology and Water Quality

This section identifies and evaluates issues related to hydrology and water quality to determine whether the Project would result in a significant impact relating to surface water and groundwater quality, groundwater supplies, existing drainage patterns, flood hazard, the County's Low Impact Development (LID) Ordinance, or inundation. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to hydrology and water quality suggest that future renewable energy projects facilitated by the Draft 2045 CAP would cause impacts related to the demand for groundwater to wash solar panels and control dust, as well as grading-related changes to existing drainage patterns.

3.11.1 Setting

3.11.1.1 Study Area

The study area for this analysis of impacts on hydrology and water quality consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2. The study area includes areas within the watersheds, groundwater recharge areas, and water quality control plan planning areas that could be affected by activities occurring in the unincorporated areas of the County.

3.11.1.2 Environmental Setting

Natural hydrologic areas within the County include marshes, lakes, ponds, streams, sloughs, and seasonal wetlands. Artificially created/developed areas within the County may include stormwater detention basins and other facilities or structures, flood control channels, street drains and gutters, roadside ditches, and road ruts. The overall geographic setting of the County results in a number of physiographic and environmental characteristics. A discussion of water features, resources, and hydrologic hazards and concerns is provided as follows.

Hydrologic Regions

A *hydrologic region* is an area drained by a river system, a closed basin, or a group of streams that form a coastal drainage area. Los Angeles County is split between two hydrologic regions: the South Coast Region and the Lahontan Region, with a small portion in the northwest corner of the County located in the Tulare Lake Hydrologic Region. The portion of the Lahontan Region that is in the County is the Antelope Valley Planning Area. The portion of the South Coast Region that is in Los Angeles County comprises all other areas of the County.

In the County, the water quality of each of these hydrologic regions is regulated by a different regulatory agency, called a *regional water quality control board* (RWQCB). RWQCBs implement both state- and federally mandated water quality regulations. The South Coast Region is regulated by the Los Angeles RWQCB, the Lahontan Region is regulated by the Lahontan RWQCB, and the Tulare Lake Region is regulated by the Central Valley RWQCB. The boundaries of the state's nine RWQCBs do not always correspond directly with the boundaries of its 10 hydrologic regions; however, in the County, the boundaries roughly coincide.

Watersheds

Watersheds are defined as areas of land where the water that is under it, or that drains off it, flows to the same place. There are eight major watersheds in Los Angeles County, some located solely within the County and some extending beyond the County: the Antelope Valley watershed, the Ballona Creek watershed, the Santa Clara River watershed, the Los Angeles River watershed, Sun Valley watershed, the Santa Monica Bay watershed, the Dominguez Channel, and the San Gabriel River watershed (LA County DPW 2022a).

Stormwater

Stormwater is created when a precipitation event leads to collection of water in pools and rivulets on either pervious or impervious surfaces. When sufficient water collects, it flows over the land, creating stormwater runoff. In natural areas, stormwater runoff generally flows toward streams, rivers, lakes, or coastal waters and infiltrates through the soil into groundwater. In developed areas, stormwater is generally either retained on-site, infiltrated through pervious areas such as bioswales and gardens, or directed into stormwater drainage systems. Stormwater collection is more difficult in developed areas and runoff is exacerbated, as pavement and structures generally do not allow for stormwater infiltration into the soil. In undeveloped or pervious areas, runoff occurs when the soil approaches saturation and no longer absorbs the precipitation. Stormwater runoff often becomes polluted by sediment and toxic contaminants, particularly in developed areas, where it flows over streets and sidewalks. Urban runoff conveyed through municipal storm drain systems is one of the causes of poor water quality at discharge locations in urban areas.

Stormwater Drainage

The sanitary sewers and the stormwater/flood control facilities in Los Angeles County are separate. Stormwater is either retained on parcels, infiltrated into the ground, or directed into a storm drain system. Stormwater runoff in unincorporated areas of the County is regulated by the National Pollutant Discharge Elimination System (NPDES) permit, the Standard Urban Stormwater Mitigation Plan (Los Angeles RWQCB 2020), and the County's stormwater LID Ordinance, each described below in Section 3.11.1.3. These permits and plans regulate how stormwater runoff emanating from a particular plot of land or development is to be handled and whether it will be retained on-site, infiltrated, or directed into an existing or planned storm drain system. The Los Angeles County Department of Public Works (LA County DPW) determines the remaining capacity of existing or planned storm drain systems and informs project applicants of the capacity (Los Angeles County 2015a).

Storm Drain System

Discharges and runoff in each of the County's watersheds flow toward a variety of natural and engineered drainage channels. Principal drainages throughout the County are as follows (Los Angeles County 2015b):

- **Los Angeles River:** A drainage channel that flows from the San Fernando Valley Planning Area to Long Beach, which is in the Gateway Planning Area.
- **San Gabriel River:** A drainage channel that extends from the San Gabriel Mountains through the West and East San Gabriel Valley Planning Areas and the Gateway Planning Areas.
- **Rio Hondo:** A drainage channel in the Los Angeles Basin that connects the San Gabriel River to the Los Angeles River.
- **Dominguez Channel:** The main drainage within the Dominguez Watershed, which approximately overlaps the South Bay and Metro Planning Areas.
- **Santa Clara River:** The main drainage channel in the Santa Clarita Valley Planning Area.
- **Antelope Valley Watershed:** The majority of storm drains within the Antelope Valley Planning Areas discharge to vacant land.

Water Quality

More than a dozen different stormwater and wastewater pollutants, including metals, nutrients, indicator bacteria, organics, pesticides, trash, and other contaminants, are found in water bodies in the County in amounts significantly above established water quality standards. Sources of this pollution can be described through two categories: point sources and nonpoint sources.

Point Sources

Point sources are well-defined locations at which pollutants flow into water bodies (discharges from wastewater treatment plants and industrial sources, for example). These sources are controlled through regulatory systems including permits issued by the RWQCBs under the NPDES program (see Section 3.11.1.3).

Nonpoint Sources

Nonpoint sources of pollutants typically are derived from project site runoff caused by rain or irrigation and have been classified by the U.S. Environmental Protection Agency (USEPA) into one of the following categories: agriculture, urban runoff, construction, hydromodification, resource extraction, silviculture (forest cultivation), and land disposal. Nonpoint-source pollution is not addressed by the same regulatory mechanisms as those used to control point sources. Instead, in California, the State Water Resources Control Board (SWRCB) implements a Non-Point Source Program to minimize nonpoint-source pollution. This program describes a three-tiered approach: the voluntary use of best management practices (BMPs), the regulatory enforcement of the use of BMPs, and effluent limitations. Each RWQCB implements the least restrictive tier until more stringent enforcement is necessary (Los Angeles County 2015b).

Hydromodification

Hydromodification is one of the leading sources of impairment in streams, lakes, estuaries, aquifers, and other water bodies in the County. Three major types of hydromodification activities—channelization and channel modification, dams, and streambank and shoreline erosion—change a water body’s physical structure as well as its natural function. These changes can cause problems such as changes in flow, increased sedimentation, higher water temperature, lower dissolved oxygen, degradation of aquatic habitat structures, loss of fish and other aquatic populations, and decreased water quality. Proper management of hydromodification activities to reduce nonpoint-source pollution in surface and groundwater is important.

Impaired Water Bodies

Section 303(d) of the federal Clean Water Act (United States Code Title 33, Section 1251 [33 U.S.C. 1251]) requires states to identify waters that do not meet water quality standards after applying certain required technology-based effluent limits. These are referred to as *impaired* waterbodies. States are required to compile this information in a list and submit the list to the USEPA for review and approval. The SWRCB’s 2018 List of Water Quality Limited Segments includes 875 segments as impaired within the Los Angeles RWQCB’s jurisdiction, including segments of coastal shoreline, bays, rivers or streams, lakes, tidal wetlands, and estuaries (SWRCB 2021). For each impaired water body, states are required to develop a *total maximum daily load* (TMDL), the amount of pollution that a water body can receive while remaining in compliance with water quality standards. TMDLs have been established or are being established for the County’s impaired water bodies.

Areas of Special Biological Significance

The SWRCB designates ocean areas that require protection from undesirable alterations in natural water quality as *Areas of Special Biological Significance* (ASBSs). Federal and state policies prohibit the discharge of pollutants into areas designated as an ASBS. The SWRCB has designated 34 areas as ASBSs. Of those, six are located within the jurisdiction of the Los Angeles RWQCB (SWRCB 2022):

- **San Clemente Island (ASBS 23)** – This 49,163-acre ASBS is located at the southernmost of the Channel Islands. It is owned by the U.S. Navy. Key pollution threats include ordnance and other contaminants from continuous military operations.
- **Laguna Point to Latigo Point (ASBS 24)** – Two-thirds of this 11,842-acre ASBS lie along the coastline of Los Angeles County; the remainder lies along the coastline of Ventura County. Key pollution threats include hundreds of direct discharges from roads, landscapes, and businesses, as well as from partly treated sewage and septic leachfields near beaches and Santa Monica Bay.
- **Northwest Santa Catalina Island (ASBS 25)** – This 13,236-acre ASBS (from Isthmus Cove to Catalina Head) is the largest of four ASBSs off Catalina Island. Key pollution threats include drainage from the village of Two Harbors, an adjoining marina, and several youth camps in the area.

- **Western Santa Catalina Island (ASBS 26)** – This 2,247-acre ASBS extends from the north end of Little Harbor to Ben Weston Point. Key pollution threats include road and stormwater runoff.
- **Farnsworth Bank (ASBS 27)** – This ASBS includes 37 acres of marine habitat but no coastline. Its location as submerged habitat offshore of the island prevents it from having any direct land-based human pollution threats.
- **Southeast Santa Catalina Island (ASBS 28)** – This 2,755-acre ASBS includes 2.9 miles of coastline along the east end of the island. There are two direct discharges and three natural streams draining to the ASBS. Key pollution threats include runoff and aerial contamination from a large quarry, and possible dredging at an adjoining barge loading site. Much of the stone from the quarry is used to build jetties in Los Angeles County.

Typical Contaminants

The following are typical contaminants that have the potential to affect groundwater, surface water, and stormwater quality.

Metals can affect surface water quality by accumulating in sediments and fish tissues. This poses risks of toxicity, such as lowering the reproductive rates and life spans of aquatic animals and animals up the food chain. Metals can also alter photosynthesis in aquatic plants and form deposits in pipes. Metals in urban runoff can result from automobile use, industrial activities, water supply infrastructure corrosion, mining, or pesticide application. Atmospheric deposition can also contribute metals to waterbodies.

Petroleum products such as oil and grease are characterized as high-molecular-weight organic compounds. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high-molecular-weight fatty acids. Introduction of these pollutants to water bodies is typical due to the widespread use and application of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of a waterbody, as well as its water quality. Although methyl tertiary butyl ether (better known as MTBE) is currently outlawed, previous uses of petroleum products can be a source of contamination. Current use regulations for volatile organic compounds ensure these chemicals are not used in amounts that would impact groundwater. Similarly, residual concentrations from petroleum products are a concern for water quality.

Increased amounts of **sediments**, greater than the amount that enters the water system by natural erosion, can cause many adverse impacts on aquatic organisms, water supply, and wetlands. Sedimentation can decrease transmission of light, which affects plant production and leads to loss of food and cover for aquatic organisms. It can change behavioral activities (nesting, feeding, mating) and adversely affect respiration, digestion, and reproduction. Contaminants and toxic substances can also be transported in sediments. Sediments can damage water treatment equipment, increasing treatment costs. They can reduce reservoir volume and flood storage and increase peak discharges.

Total dissolved solids (TDS) refers to the total concentration of all minerals, salts, metals, or cations/anions (positive/negative charged ions) that are dissolved in water. TDS is composed of inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonate, carbonate, chloride, and sulfate), and small amounts of organic matter that are dissolved in water. The primary source of TDS in groundwater is the natural dissolution of rocks and minerals, but septic tanks, agricultural runoff, and stormwater runoff also contribute. Increased salts in regional freshwater resources from mining, urban runoff, and construction can create stressful environments and even destroy habitat and food sources for wetland animals in aquatic and wetland habitats, as well as favoring salt-tolerant species, reducing the quality of drinking water, and potentially causing skin or eye irritations in people.

Groundwater

Groundwater Basins

When precipitation and surface water infiltrate naturally into the ground, they typically travel first through an unsaturated soil zone until they reach the *water table*, which is the layer where the soil is saturated. This layer of soil saturation is called a *groundwater basin* or *aquifer*. Aquifers can hold millions of acre-feet of water and extend for miles. Los Angeles County is underlain by numerous groundwater basins, listed in **Table 3.11-1, Groundwater Basins**. Except during times of drought, groundwater extraction accounts for nearly one-third of the water usage in the unincorporated areas. In rural areas, many households depend solely on private wells that tap into local groundwater sources.

**TABLE 3.11-1
 GROUNDWATER BASINS**

| Planning Area | Groundwater Basin | Sub-Basins |
|----------------------------------|--|---|
| Antelope Valley | Antelope Valley Groundwater Basin | NA |
| Santa Clarita Valley | Santa Clarita Valley Groundwater Basin | NA |
| San Fernando Valley | San Fernando Valley Groundwater Basin (also known as the Upper Los Angeles River Area) | <ul style="list-style-type: none"> • San Fernando Main Basin • Sylmar Basin • Verdugo Basin • Eagle Rock Basin |
| West and East San Gabriel Valley | San Gabriel Valley Groundwater Basin | <ul style="list-style-type: none"> • Main San Gabriel Basin • Upper San Gabriel Canyon Basin • Lower San Gabriel Canyon Basin • Wayhill Basin • Foothill Basin • Glendora Basin • Claremont Heights Basin • Live Oak Basin • Chino Basin • San Dimas Basin • Pomona Basin • Puente and Spadra Basins • Raymond Basin |
| Westside South Bay Metro Gateway | Coastal Plain Groundwater Basin | <ul style="list-style-type: none"> • Central Basin • West Coast Basin • Santa Monica Basin • Hollywood Basin |

NOTE: NA = not applicable

SOURCE: Los Angeles County 2015b

Supply and Recharge

In the more urbanized areas of Los Angeles County, the natural groundwater recharge process is hampered by compacted soils and impervious surfaces associated with urbanization and development. Some open space areas of the County (such as the Antelope Valley Planning Area) has been subject to overdraft conditions for years: Although substantial opportunity for percolation exists, water demand is such that annual precipitation and groundwater recharge operations are not typically sufficient for basin recharge.

In an effort to mitigate groundwater depletion, water agencies in the County have developed strategies to recharge groundwater artificially. One strategy involves purchasing water imported from outside the County or using recycled water and injecting it or allowing it to percolate into groundwater basins. A second option involves placing imported water at spreading grounds, where it percolates into groundwater basins.

The Los Angeles County Flood Control District (LACFCD) engages in a variety of activities that help recharge groundwater basins. These activities include diverting stormwater or treated recycled wastewater into regional spreading grounds. The majority of this recycled water is provided by the County Sanitation Districts, with smaller amounts provided by the Water Replenishment District of Southern California, the City of Los Angeles, and the West Basin Municipal Water District (Los Angeles County 2015b).

Water Hazards

Flooding

Flooding in Los Angeles County can be induced by earthquakes or by intense rainfall. Storm events that are intense and frequent have been known to cause mudflow and flood hazards that have led to the destruction of property, injuries, and deaths in the County (Los Angeles County 2015b).

The unincorporated County includes floodplains that are designated by the Federal Emergency Management Agency (FEMA) and by the California Department of Water Resources. FEMA designates 100-year and 500-year floodplains as part of its National Flood Insurance Program (NFIP). In the unincorporated County, the majority of FEMA-designated floodplains are located in the Antelope Valley. Unincorporated areas of the Santa Clarita Valley also contain some FEMA-designated floodplains, concentrated around the Santa Clara River and its tributaries.

Dams, Reservoirs, and Levees

There are 103 dams in Los Angeles County, which hold billions of gallons of water in reservoirs. Dams can pose a hazard to life and property in the event that seismic activity compromises dam structures and triggers flooding. There are also numerous levees throughout the County. Since 1928, two dam failures and one near-failure have occurred in the County. The majority of inundation areas in the County are located in the urbanized areas of the unincorporated urban islands (Los Angeles County 2015b).

Tsunamis

A *tsunami* is a very large ocean wave caused by an underwater earthquake, volcanic eruption, or submarine landslide. Tsunamis can cause flooding to coastlines and inland areas less than 50 feet above sea level and within 1 mile of the shoreline. The travel time for a locally generated tsunami, from initiation at the source to arrival at coastal communities, can be 5 to 30 minutes.

The likelihood of catastrophic inundation of low-lying coastal areas as a result of a tsunami is low. The areas within the unincorporated County that have the potential to be susceptible to tsunami hazards consist of limited areas within the Santa Monica Mountains and Westside Planning Areas (California Geological Survey 2021). Within the Santa Monica Mountains Planning Area, the tsunami inundation areas, as mapped by the California Geological Survey, include Topanga State Beach and Topanga County Beach, east and west of the intersection of Pacific Coast Highway with Topanga Canyon Boulevard, and Leo Carrillo State Beach at the west end of Los Angeles County. Within the Westside Planning Area, the tsunami inundation area extends to just inland of the inland end of the marina in Marina del Rey, which is approximately 1.6 miles inland from the shoreline.

Seiches

A *seiche* is a surface wave in a completely or partially enclosed body of water, such as a lake, a reservoir, or an aboveground water storage tank. Areas located along the shoreline of inland water bodies are susceptible to inundation by a seiche. High winds, seismic activity, or changes in atmospheric pressure are typical causes of seiches. The size of a seiche and the affected inundation area is influenced by a variety of factors, which include the size and depth of the water body, elevation, source, and, if human-made, the structural condition of the body of water in which the seiche occurs.

In the unincorporated County, there are numerous aboveground water storage tanks, which could create flooding if strong ground shaking were to cause structural damage to the tank. Sloshing water can lift a water tank off its foundation or break the pipes that lead to the tank. The likelihood that an aboveground storage tank would break due to ground shaking is reduced through compliance with standards for steel and reinforced-concrete tank design issued by the American Water Works Association (2013) and the California Department of Public Health (2008).

Mudflow

Mudflows, also known as *debris flows*, are shallow water-saturated landslides that travel rapidly down slopes, carrying rocks, brush, and other debris. Areas within the County that are particularly susceptible to mudflow generally include canyons and areas along the bases of hillsides. Because most of the County's Planning Areas contain hillsides and canyons, mudflow has the potential to occur in most of the Planning Areas. The potential for mudflow to occur increases after a wildfire, as slopes become more susceptible to erosion. The LACFCD operates debris basins and inlets above many foothill communities to prevent mudflows from affecting the communities (LA County DPW 2022b).

3.11.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act of 1972, as amended

The Clean Water Act is the primary federal law governing water pollution. Its objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. It is administered by USEPA in coordination with state governments. Its implementing regulations are codified at Code of Federal Regulations (CFR) Title 40, Subchapters D, N, and O (Parts 100–140, 401–471, and 501–503).

Section 401 – Water Quality Certification

Clean Water Act Section 401 establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the Clean Water Act, USEPA has implemented pollution control programs such as setting wastewater standards for industries and surface waters (USEPA 2022).

Section 402

Section 402 establishes the NPDES permit process. In California, NPDES permitting authority is delegated to and administered by the nine RWQCBs. Pursuant to Section 402, a discharge of any pollutant from a point source into navigable waters is prohibited unless an NPDES permit is obtained. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges flow directly to surface waters (USEPA 2021a).

Section 402(p) requires issuance of a stormwater permit for stormwater discharges from a municipal separate storm sewer system (MS4) serving a population of 100,000 or more. *Municipal separate storm sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutter, ditch, man-made channels, or storm drain) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or a tribe or an authorized tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges to waters of the United States (40 CFR 122.26[b][8]).

Section 404—Discharge of Dredged or Fill Material

Clean Water Act Section 404 is administered and enforced by the U.S. Army Corps of Engineers (USACE). It establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. The USACE administers the day-to-day program, including the determination of eligibility of projects for use of Categorical Exclusions and Nationwide Permits, and review and consideration of individual permit decisions and jurisdictional determinations. The USACE also develops policy and guidance, and enforces Section 404 provisions (USEPA 2021b).

National Flood Insurance Act and Flood Disaster Protection Act

The 1968 National Flood Insurance Act and the 1973 Flood Disaster Protection Act restrict certain types of development on floodplains and provide for an NFIP (FEMA 1997). The purpose of these acts is to reduce the need for large, publicly funded flood control structures and disaster relief. The NFIP is a federal program administered by the Flood Insurance Administration of FEMA. It enables individuals who have property (a building or its contents) within the 100-year floodplain to purchase insurance against flood losses. FEMA works with the states and local communities to identify flood hazard areas and publishes a flood hazard boundary map of those areas. Floodplain mapping is an ongoing process; flood maps are updated regularly for both major rivers and tributaries because land uses and development patterns change.

Executive Order 11988, Flood Plain Management

The objective of Presidential Executive Order 11988, dated May 24, 1977 (42 Fed. Reg 11988), is the avoidance, to the extent possible, of long- and short-term adverse impacts associated with the occupancy and modification of the base floodplain (100-year floodplain), and the avoidance of direct and indirect support of development in the base floodplain wherever there is a practicable alternative. Under the executive order, the USACE must provide leadership and take action to do the following:

- Avoid development in the base floodplain unless it is the only practicable alternative.
- Reduce the hazard and risk associated with floods.
- Minimize the impact of floods to human safety, health, and welfare.
- Restore and preserve the natural and beneficial values of the base floodplain.

State Laws, Regulations, and Policies

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act; Water Code Section 13000 et seq.) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to this Act, the policy of the state is as follows:

- That the quality of all the waters of the state shall be protected.
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason.
- That the state must be prepared to exercise its full power and jurisdiction to protect the quality of water in the state from degradation.

The Porter-Cologne Act established nine RWQCBs (based on hydrogeologic barriers) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews the RWQCBs' decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for

individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous NPDES-related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The RWQCBs regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits and waste discharge requirements for point- and nonpoint-source discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge.

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as NPDES permitting program. Section 401 of the Clean Water Act gives the SWRCB the authority to review any proposed federally permitted or federally licensed activity that may affect water quality and to certify, condition, or deny the activity if it does not comply with state water quality standards. The Porter-Cologne Act also requires adoption of water quality control plans (basin plans) that contain the guiding policies of water pollution management in California.

A number of statewide water quality control plans have been adopted by the SWRCB. In addition, a basin plan has been adopted by each RWQCB and is updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the state and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. Statewide and regional water quality control plans include enforceable prohibitions against certain types of discharges, including those that may pertain to nonpoint sources. Portions of water quality control plans, the water quality objectives and beneficial use designations, are subject to review by USEPA; when approved, they become water quality standards under the Clean Water Act.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Edmund G. Brown Jr. signed a three-bill package¹ known as the Sustainable Groundwater Management Act (SGMA), which created a framework for sustainable, local groundwater management by local agencies through groundwater sustainability agencies (GSAs) toward achieving sustainable groundwater management within 20 years. In September 2015, Governor Brown signed Senate Bill 13, which makes various technical, clarifying changes to SGMA, including its requirements for groundwater sustainability agency formation, the process for SWRCB intervention if no responsible agency is specified for a basin, guidelines for high- and medium-priority basins, and participation of mutual water companies in a groundwater sustainability agency.

The formation of GSAs for all basins that have been designated as high- and medium-priority groundwater basins was required by July 1, 2017. The Department of Regional Planning represents the County on two GSAs: the Santa Clarita Valley GSA and Santa Monica Basin GSA. Each GSA for these high- and medium-priority basins is charged with development of a groundwater sustainability plan (GSP) that details how sustainable groundwater management will

¹ The three bills that make up SGMA are Assembly Bill 1739 by Assembly Member Roger Dickinson, Senate Bill 1319, and Senate Bill 1168 by Senator Fran Pavley.

be achieved within 20 years of implementing the GSP. The GSP is a tool used to help the GSA sustainably manage the basin. Final GSPs were approved for the Santa Clarita Valley and the Santa Monica Basin GSAs in January 2022 (Santa Clarita Valley GSA 2022; Santa Monica Basin GSA 2022).

Los Angeles County overlies several adjudicated groundwater basins: the Upper Los Angeles River Area Basin, the Antelope Valley Groundwater Basin, the Central and West Coast Groundwater Basins, and the San Gabriel Valley Groundwater Basin. Each of these adjudicated groundwater basins is exempt from SGMA with limited exceptions, for example, with respect to reporting and monitoring.

Lake or Streambed Alteration Program

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, Section 1600 of the Fish and Game Code requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, or state or local government agency or public utility that proposes an activity that will result in any of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake.
- Substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake.
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the floodplain of a body of water. If CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared.

National Pollutant Discharge Elimination System General Permits

Construction General Permit

The California Construction Stormwater Permit (Construction General Permit) (also known as Industrial General Permit), adopted by the SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least 1 acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. It prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges, and all discharges that contain a hazardous substance in excess of reportable quantities established in 40 CFR 117.3 or 40 CFR 302.4, unless a separate NPDES permit has been issued to regulate those discharges. The Construction General Permit

requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a risk assessment to determine pollution prevention requirements pursuant to the three risk levels established in the Construction General Permit.
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States.
- Develop and implement a storm water pollution prevention plan (SWPPP), which specifies BMPs that will reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards.
- Perform inspections and maintenance of all BMPs.

To obtain coverage under the NPDES Construction General Permit, the entity designated by law as the Legally Responsible Person must electronically file all permit registration documents with the SWRCB before the start of construction. Permit registration documents must include the following:

- Notice of Intent
- Risk Assessment
- Site Map
- SWPPP
- Annual Fee
- Signed Certification Statement

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post-construction runoff quantity (volume) and quality (treatment). The SWPPP must also include a discussion of the program to inspect and maintain all BMPs (SWRCB 2012).

Industrial General Permit

The Statewide General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit) implements the federally required stormwater regulations in California for stormwater associated with industrial activities discharging to waters of the United States (SWRCB 2018).

Regional and Local Laws, Regulations, and Policies

Water Quality Control Plan for the Los Angeles Region

The RWQCB has prepared a basin plan for the Los Angeles Region, which it describes as follows (Los Angeles RWQCB 2020, 2022):

Los Angeles Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies

and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

The *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watershed of Los Angeles and Ventura Counties* (Basin Plan) encompasses all coastal drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line, as well as the drainages of five coastal islands (Anacapa, San Nicolas, Santa Barbara, Santa Catalina, and San Clemente). In addition, the Los Angeles region includes all coastal waters within three miles of the continental and island coastlines. As the eastern boundary, formed by the Los Angeles County line, departs somewhat from the hydrologic divide, the Los Angeles and Santa Ana regions share jurisdiction over watersheds along their common border.

The Basin Plan assigns beneficial uses to surface water and groundwater such as municipal water supply and water-contact recreation to all waters in the basin. It also sets water quality objectives, subject to approval by the USEPA, intended to protect designated beneficial uses. These objectives apply to specific parameters (numeric objectives) and general characteristics of the water body (narrative objectives). An example of a narrative objective is the requirement that all waters must remain free of toxic substances in concentrations producing detrimental effects upon aquatic organisms. Numeric objectives specify concentrations of pollutants that are not to be exceeded in ambient waters of the basin. The Los Angeles RWQCB is involved in the regulation of several activities that are relevant to the consideration of the Basin Plan:

- Prepares, monitors compliance with, and enforces Waste Discharge Requirements, including NPDES permits.
- Implements and enforces local stormwater control efforts.
- Enforces water quality laws, regulations, and waste discharge requirements.
- Regulates general construction activity stormwater discharges.

Stormwater discharges composed entirely of runoff from qualifying construction activities may require regulation under the Construction General Permit issued by the SWRCB. Construction activities that qualify include clearing, grading, excavation, reconstruction, and dredge-and-fill activities that result in the disturbance of at least 1 acre and less than 5 acres of total land area. The evaluation of the plan does not generate the need for compliance with the Construction General Permit. The development of single-family residences would require permit coverage if the development would disturb an area greater than 1 acre of land. Additionally, the plan would require the consideration of a Standard Urban Stormwater Mitigation Plan as part of compliance with the NPDES General Construction Activity Storm Water Permit to reduce water quality impacts to the maximum extent practicable. A Standard Urban Stormwater Mitigation Plan is a report that includes one or more site maps, an identification of construction activities that could cause pollutants to enter the stormwater, and a description of measures or BMPs to control these pollutants to the maximum extent practicable.

County of Los Angeles General Plan

As part of the Conservation and Natural Resources Element of the 2035 General Plan, the LA County Board of Supervisors has adopted the following goals and policies for water quality initiatives related to local water resources (Los Angeles County 2015b):

Goal C/NR 5: Protected and useable local surface water resources.

Policy C/NR 5.1: Support the LID philosophy, which seeks to plan and design public and private development with hydrologic sensitivity, including limits to straightening and channelizing natural flow paths, removal of vegetative cover, compaction of soils, and distribution of naturalistic BMPs at regional, neighborhood, and parcel-level scales.

Policy C/NR 5.2: Require compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), General Construction, and point source NPDES permits.

Policy C/NR 5.3: Actively engage with stakeholders in the formulation and implementation of surface water preservation and restoration plans, including plans to improve impaired surface water bodies by retrofitting tributary watersheds with LID types of BMPs.

Policy C/NR 5.4: Actively engage in implementing all approved Enhanced Watershed Management Programs/Watershed Management Programs and Coordinated Integrated Monitoring Programs/Integrated Monitoring Programs or other County-involved TMDL implementation and monitoring plans.

Policy C/NR 5.5: Manage the placement and use of septic systems in order to protect nearby surface water bodies.

Policy C/NR 5.6: Minimize point and non-point source water pollution.

Policy C/NR 5.7: Actively support the design of new and retrofit of existing infrastructure to accommodate watershed protection goals, such as roadway, railway, bridge, and other—particularly—tributary street and greenway interface points with channelized waterways.

Goal C/NR 6: Protected and usable local groundwater resources.

Policy C/NR 6.1: Support the LID philosophy, which incorporates distributed, post-construction parcel-level stormwater infiltration as part of new development.

Policy C/NR 6.2: Protect natural groundwater recharge areas and regional spreading grounds.

Policy C/NR 6.3: Actively engage in stakeholder efforts to disperse rainwater and stormwater infiltration BMPs at regional, neighborhood, infrastructure, and parcel-level scales.

Policy C/NR 6.4: Manage the placement and use of septic systems in order to protect high groundwater.

Policy C/NR 6.5: Prevent stormwater infiltration where inappropriate and unsafe, such as in areas with high seasonal groundwater, on hazardous slopes, within 100 feet of drinking water wells, and in contaminated soils.

Goal C/NR 7: Protected and healthy watersheds.

Policy C/NR 7.1: Support the LID philosophy, which mimics the natural hydrologic cycle using undeveloped conditions as a base, in public and private land use planning and development design.

Policy C/NR 7.2: Support the preservation, restoration and strategic acquisition of available land for open space to preserve watershed uplands, natural streams, drainage paths, wetlands, and rivers, which are necessary for the healthy function of watersheds.

Policy C/NR 7.3: Actively engage with stakeholders to incorporate the LID philosophy in the preparation and implementation of watershed and river master plans, ecosystem restoration projects, and other related natural resource conservation aims, and support the implementation of existing efforts, including Watershed Management Programs and Enhanced Watershed Management Programs.

Policy C/NR 7.4: Promote the development of multi-use regional facilities for stormwater quality improvement, groundwater recharge, detention/attenuation, flood management, retaining non-stormwater runoff, and other compatible uses.

Los Angeles County Code—Low Impact Development Ordinance

Title 12, Chapter 12.84 of the LA County Code contains the LID Ordinance, compliance with which is informed by the *County of Los Angeles Department of Public Works Low Impact Development Standards Manual* (LID Standards Manual) (LA County DPW 2014a). The ordinance is designed to promote sustainability and improve the County’s watersheds by preserving drainage paths and natural water supplies to retain, detain, store, change the timing of, or filter stormwater or runoff. All projects need to meet applicable water quality requirements, including LID requirements, as determined by the County.

Compliance with the LID Ordinance involves the following LID standards:

- Mimic undeveloped stormwater runoff rates and volumes in any storm event up to and including a 50-year flood event.
- Prevent pollutants of concern from leaving the development site in stormwater as the result of storms, up to and including a water quality design storm event. (This refers to the flow rate–based design storm events for the water quality BMPs identified in the NPDES Municipal Stormwater Permit for the County.)
- Minimize hydromodification impacts on natural drainage systems.

Project design features and BMPs implemented to comply with the LID Ordinance could include the following:

- On-site infiltration, bioretention, or rainfall harvest of excess runoff.
- On-site storage or reuse of excess runoff (LA County Code, Chapter 12.84).

Los Angeles County Code—Stormwater and Runoff Pollution Control

Overall, the County’s Stormwater and Runoff Pollution Control Program tracks industrial and commercial businesses in the unincorporated areas of the County to determine compliance with the provisions of the Municipal NPDES Permit issued by the Los Angeles RWQCB. For key

details about the program, see Title 12, Chapter 12.80 of the County Code, which prohibits certain discharges to the storm drain system, such as non-stormwaters that are not authorized by an NPDES permit, pesticides in concentration that exceed water quality objectives established by the RWQCB, and sanitary or septic waster or sewage.

Los Angeles County Code—Erosion and Sediment Control Plans

Title 26, Appendix J of the County Code contains the County Grading Code. This code includes regulations for erosion control and water quality for grading operations. NPDES compliance is required for all projects within the unincorporated areas of the County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan (ESCP) grading permits cannot be issued until an ESCP is approved or details for erosion control are included in the grading plan. ESCPs include specific BMPs to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related pollutants. The BMPs shown in ESCPs must be installed on or before October 15. ESCPs are required to be revised annually or as required by the Building Official to reflect current conditions of a site.

For grading projects with a disturbed area of 1 or more acres, the required state SWPPP may be used to fulfill the County’s ESCP requirements. As with an ESCP, a grading permit cannot be issued until the SWPPP has been submitted and approved by the County Building Official.

Los Angeles County Flood Control District Code

Chapter 21 of the County Flood Control District Code, Stormwater and Runoff Pollution Control, regulates discharges to LACFCD storm drains. The following discharges are prohibited under this code:

- Stormwater that contains pollutant concentrations exceeding or contributing to an exceedance of water quality standards.
- Non-stormwater discharges unless authorized by an NPDES permit and by a permit issued by the Chief Engineer of the LACFCD.
- Sanitary or septic waste swage from a property or residence, a recreational vehicle, a portable toilet, a water holding tank, etc.
- Pollutants, leaves, dirt, and other landscape debris.

Additionally, Chapter 21 requires that any industrial or commercial facility that must have an NPDES permit shall retain on-site and, upon request, make available to the LACFCD Chief Engineer, the following document as evidence of compliance with permit requirements:

- A copy of the NPDES permit or Notice of Intent to comply with a construction general permit to discharge stormwater associated with industrial activity.
- A waste discharge identification number or copy of the NPDES permit.
- A SWPPP and a monitoring program plan.
- Stormwater quality data.
- Evidence of facility self-inspection.

Los Angeles County Programs and Plans

Integrated Regional Water Management Plans

Integrated regional water management plans (IRWMPs) define a clear vision and strategy for the sustainable management of water resources in a specific region delineated by one or more watersheds. IRWMPs generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. They address the challenges for delivering a stable and clean supply of water for the public, including stormwater and urban runoff water quality, flood protection, water infrastructure needs, use of reclaimed water, water conservation, and environmental stewardship.

During the planning process, all stakeholders, including water distributors and purveyors, regional waterworks and sanitation districts, local public works departments, environmental organizations, nonprofits, and other vested interests, work together to develop common goals, objectives, and strategies for water use. Because water-related issues are addressed on a regional, watershed basis, these plans are instrumental in building consensus amongst the various stakeholders in the development and prioritization of an action plan that is complementary and leverages interjurisdictional cooperation, resources, and available funding. There are four IRWMP regions in the County:

- Antelope Valley IRWMP (LA County DPW 2019)
- Upper Santa Clara River IRWMP (LA County DPW 2018)
- Greater Los Angeles County IRWMP (LA County DPW 2014b)
- Los Angeles Gateway Region IRWMP (LA County DPW 2011)

Sediment Management Strategic Plan

Following wildfires in 2007 and 2009 that burned a large portion of Los Angeles County and led to an increased inflow of sediment and debris within LACFCD facilities, LACFCD developed a 20-year sediment management strategic plan, dated March 2013, for years 2012 through 2032 that pursues new alternatives for reducing the environmental and social impacts of sediment management (LA County DPW 2022b).

The *Sediment Management Strategic Plan 2012–2032* represents the results of a continuing dialogue about sediment management between LACFCD and numerous stakeholders in the region. The strategic plan provides an overview of sediment management issues, evaluates various strategies to help identify optimal solutions for sediment management, and identifies general steps that should be pursued to meet LACFCD's mission. The plan is guided by the following key objectives (LA County DPW 2022b):

- Maintaining flood risk management and water conservation.
- Recognizing opportunities for increased environmental stewardship.
- Reducing social impacts related to sediment management.
- Identifying ways to use sediment as a resource.
- Ensuring that the Flood Control District is fiscally responsible in decision making.

Floodplain Management Plan

The County's 2020 Floodplain Management Plan identifies flood-related hazards, explains potential effects on structures and residents, explores possible preventive measures, and specifies how flood awareness outreach will be conducted (LA County DPW 2020). It also provides maps of flood hazard areas, adopting associated ordinances, and regulating and enforcing safe building practices. Together, compliance with the County Flood Control District Code and the 2020 Floodplain Management Plan promotes flood protection in the County and maintains the County's eligibility to participate in FEMA's NFIP.

Low Impact Development Standards Manual

In 2014, the County prepared the LID Standards Manual to comply with the requirements of the MS4 permit issued in 2012 for stormwater and non-stormwater discharges in the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175; LA County DPW 2014a). This manual provides guidance for stormwater quality control measures in new development and redevelopment projects in the unincorporated areas of the County.

Project applicants within unincorporated areas of the County submit a LID plan for review and approval by the director of County DPW. These plans must include a discussion of how their proposed project would comply with the requirements of the County's LID Ordinance and LID Standards Manual. LID plans are required to provide the following:

- Identification of whether the project is a Designated or Non-Designated Project (if Designated, the LID plan must identify the project category).
- Feasibility of infiltration, including a percolation report prepared by a geotechnical engineer.
- Source control measure(s) proposed to be implemented.
- Calculation of the stormwater quality design volume.
- Discussion as to whether the harvest of stormwater runoff would be feasible.
- Stormwater quality control measures.
- Discussion of how the applicable water quality standards and TMDLs would be addressed (applies only to off-site mitigation projects).
- Proposed hydromodification controls and calculations.
- Proposed maintenance plan.

LID plans can be included in hydrology reports submitted to County DPW, can be included in grading reports submitted to County DPW, or can be prepared as a stand-alone document (LA County DPW 2014a).

Los Angeles County All-Hazards Mitigation Plan

The County's General Plan Safety Element works in conjunction with the County All-Hazards Mitigation Plan, which is prepared by the Chief Executive Office–Office of Emergency Management, which sets strategies for natural and man-made hazards in the County (Los Angeles

County Chief Executive Office 2019). The County All-Hazards Mitigation Plan was adopted by the County Board of Supervisors in May 2020 and also has been approved by FEMA and the California Emergency Management Agency. The plan includes a compilation of known, projected, and historical hazards in the County. The plan addresses all major natural and human-caused disasters that fall within the responsibilities of County departments within the geographic County.

The All-Hazards Mitigation Plan includes risk reduction measures for coastal areas to address tsunami inundation and flooding (Los Angeles County 2015a).

Natural Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 (42 U.S.C. 4001 et seq.) require FEMA to evaluate flood hazards. FEMA produces flood insurance rate maps (FIRMs) for local and regional planners that identify potential flood areas based on current conditions. FEMA conducts flood insurance studies to determine potential flood zones to be shown in the FIRMs. FEMA's revised FIRMs became effective for the unincorporated areas and the cities along the coast of Los Angeles County on April 21, 2021 (LA County DPW 2022c); for the unincorporated areas and the city of Santa Clarita in the Santa Clara River watershed on June 2, 2021 (LA County DPW 2022d); and for the unincorporated Triunfo and Lobo Canyon areas in April 2018 (LA County DPW 2022e). Using these studies, FEMA delineates Special Flood Hazard Areas on the FIRMs.

The Flood Disaster Protection Act requires owners of all structures within identified Special Flood Hazard Areas to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance. Community members within designated areas are able to participate in the NFIP afforded by FEMA. The NFIP is required to offer federally subsidized flood insurance to property owners in communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The Act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

The County, under the NFIP, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required pre-development drainage studies, compliance with discharge permits, enhancement of existing waterways, cooperation with the USACE and the LACFCD for updating, and method consistency with the RWQCB and proposed BMPs. See Los Angeles County General Plan Housing Element Update Figure 4.10-1, *Flood Hazard Zones Policy Map* (Los Angeles County 2021), which shows flood hazard areas, including in the unincorporated areas.

Los Angeles River Master Plan

The County updated the Los Angeles River Master Plan in 2022 (Geosyntec et al, 2022). The Plan outlines a comprehensive approach for managing 51 miles of the Los Angeles River. The Plan addresses a wide range of social and environmental aspects of the river, the watershed, and

the communities along the river, providing public access to land use and resource data over the length of the river. The Plan outlines numerous improvements and revitalization projects that could be implemented to enhance public use of the river, improve natural resources, and develop innovative recreational facilities.

Adjudicated Groundwater Basins

Four groundwater basins within the County are adjudicated, having a court-assigned Watermaster which imposes pumping limits to maintain safe yield as directed by a court order. These basins include the Upper Los Angeles River Area Groundwater Basin, Central and West Coast Groundwater Basin, Antelope Valley Groundwater Basin, and San Gabriel Valley Groundwater Basin. Groundwater pumping in each of these basins is regulated through their Watermasters, which produce annual reports listing total pumping compared with recharge and allowed pumping allotments.

3.11.2 Impact Analysis

3.11.2.1 Significance Criteria

To determine the level of significance of an identified impact, the following thresholds are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on hydrology and water quality if it would:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin;
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding;
- d) Otherwise place structures in federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements;
- e) Conflict with the Los Angeles County Low Impact Development Ordinance (Los Angeles County Code, Title 12, Ch. 12.84);
- f) Use onsite wastewater treatment systems in areas with known geological limitations (e.g., high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course);

- g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation;
or
- h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Based on the analysis documents in the Initial Study (Appendix A.2), it was concluded that implementation of Draft 2045 CAP measures and actions would result in no impact relative to criterion e) regarding a conflict with the County LID Ordinance, and criterion f) regarding on-site wastewater treatment systems. With respect to each of these criteria, the Initial Study concluded that requisite compliance with independently enforceable state and local requirements would ensure that adoption and implementation of the Draft 2045 CAP would have no impact related to the LID Ordinance or wastewater treatment systems. Accordingly, these considerations were not carried forward for more detailed review.

3.11.2.2 Methodology

This analysis evaluates the considerations identified in CEQA Guidelines Appendix G and identified by County, which are set forth in Section 3.11.2.1, *Significance Criteria*, to determine whether the Draft 2045 CAP, including future projects facilitated by Draft 2045 CAP measures and actions, would result in significant impacts on hydrology and water quality. Impacts related to hydrology and water quality are analyzed qualitatively. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.11.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed greenhouse gas reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects, and associated energy storage and distribution facilities, are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element.

No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of hydrology and water quality–related impacts. These and other relevant measures and actions include: Action T6.7, which could facilitate increased use of green hydrogen vehicles throughout the County (hydrogen fuel generation is a water-intensive process [see, for example, Beswick et al. 2021]); and the renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward (a) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (b) the electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (c) the electrification of buildings (Strategy 5, Decarbonize Buildings). These projects are relevant to the analysis because related development could degrade surface water or groundwater quality, decrease groundwater supplies, interfere with groundwater recharge, alter existing drainage patterns, or be developed in an area that would require additional flood-proofing.

The timeframe during which the implementation of these actions and measures would cause impacts related to hydrology and water quality would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually would violate standards; affect groundwater supply, groundwater recharge, or drainage patterns; result in a flood hazard; or otherwise adversely impact one of the considerations specified in Section 3.11.2.1, *Significance Criteria*. If an impact occurs, it would occur immediately and could be short term or continue in effect long-term depending on the severity and location of the impact. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific hydrology and water quality impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction

projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Impact 3.11-1: Projects facilitated by the Draft 2045 CAP would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would have a direct adverse impact on water quality. Nonetheless, many of the projects facilitated by Draft 2045 CAP measures and actions would involve activities that may degrade surface water or groundwater quality or violate any water quality standards or waste discharge requirements as a result of new roadway and stormwater runoff, direct discharges from landscapes and businesses, dredge and fill activities, or releases from sewage or septic system upsets. For example, Action ES1.1 could result in improper closure of an existing oil or gas operation, with resulting impacts on surface or groundwater; and all new development, including buildings and solar generation projects facilitated by Draft 2045 CAP measures and actions decarbonizing buildings and vehicles, could require new roads with resulting stormwater runoff impacts.

However, all projects facilitated by Draft 2045 CAP measures and actions would be required to comply with independently enforceable requirements of the NPDES Construction General Permit and the County MS4 Permit as well as the other federal, state, and local requirements summarized in Section 3.11.1.3, *Regulatory Setting*. This includes compliance with the California Green Building Standards Code, which requires the incorporation of BMPs for materials and waste storage, handling, equipment and vehicle maintenance, and fueling to reduce potential discharge of polluted runoff from construction sites. It also would include adherence to the Construction General Permit, which requires future projects facilitated by Draft 2045 CAP measures and actions over 1 acre to prepare and implement a SWPPP for construction activities. As described above, a SWPPP is required to identify BMPs to control construction-related erosion and sedimentation in dry weather and stormwater runoff, thereby avoiding substantial degradation of water quality. Typical BMPs that could be incorporated into the SWPPP to protect water quality include: diverting off-site runoff away from the construction site; vegetating or revegetating areas as soon as feasible following grading activities; placing perimeter straw wattles to prevent off-site transport of sediment; conducting dust control activities during demolition and construction; using contained equipment wash-out and vehicle maintenance areas; maintaining erosion and sedimentation control measures throughout the construction period; and training all on-site workers on general site housekeeping. Compliance with applicable federal, state, and local regulations would ensure that potential impacts of projects facilitated by Draft 2045 CAP measures and actions related to polluted runoff would be less than significant.

Compliance with applicable federal, state, and local regulations also would be required during the operation of projects facilitated by Draft 2045 CAP measures and actions, such as projects facilitated by Measure T1, which could result in residential densification near high-quality transit areas. Applicable requirements would include NPDES and MS4 permit requirements as well as site-specific SWPPP LID features to reduce the potential for pollution from incidental spills of vehicle oils and other chemicals that can be conveyed by storm and landscape irrigation flows. The NPDES permit would establish limits on pollutants discharged into waterways and require all new development and significant redevelopment to incorporate LID features to reduce the discharge of pollutants into receiving waters. Requisite implementation of BMPs would address water quality concerns, such as inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); improper management of hazardous materials; trash and debris; and improper management of portable restroom facilities (e.g., regular service). Additionally, compliance with the California Green Building Standards Code would require source controls for outdoor material storage areas, outdoor trash storage/waste handling areas, outdoor loading/unloading dock areas, and building materials areas to improve water quality. Source controls also would include storm drain messages and signage and beneficial landscape irrigation practices. Compliance with these requirements, as well as with project-specific, site-specific mitigation measures or conditions imposed pursuant to individual CEQA and permitting processes, would ensure that degradation of water quality (surface and ground) would remain minimal and that projects facilitated by Draft 2045 CAP measures and actions would meet all waste discharge requirements. Therefore, neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would violate any water quality standards. Resulting impacts would be less than significant.

Mitigation: None required.

Criterion b) Whether the Project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

Impact 3.11-2: Projects facilitated by the Draft 2045 CAP would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. (*Less-than-Significant Impact*)

As discussed above, the Draft 2045 CAP is a policy document that does not include specific projects that would impede sustainable groundwater management of the groundwater basins identified in Table 3.11-1, *Groundwater Basins*.

Groundwater Supply

Projects facilitated by measures and actions supporting Draft 2045 CAP Strategy 7, Conserve Water, would likely have a beneficial impact on groundwater supplies. For example, projects facilitated by Measure E5, Increase Use of Recycled Water and Gray Water Systems, and Measure E6, Reduce Indoor and Outdoor Water Consumption, would beneficially reuse water and thereby reduce a demand for new sources, including groundwater sources. Projects facilitated by Draft 2045 CAP measures and actions could affect groundwater supplies due to increased water demand; however, as discussed in Section 3.14, *Population and Housing*, any future

housing projects facilitated by Draft 20435 CAP measures and actions would be aligned with population and housing forecasts already analyzed and approved pursuant to the 2021-2029 Housing Element and the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Connect SoCal, adopted by the Southern California Association of Governments (SCAG 2020).

Water demand could be affected by projects facilitated by Draft 2045 CAP measures and actions toward (a) decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (b) the electrification of vehicles (e.g., Measure T6, Increase ZEV Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (c) the electrification of buildings (Strategy 5, Decarbonize Buildings)—for example, for periodic solar PV panel washing. However, solar energy generation technologies use a modest amount of water (approximately 20 gallons per megawatt-hour) for dust control or cleaning. By comparison, a typical family uses about 20,000 gallons of water annually, which is more than the amount of water needed per megawatt of PV generation capacity (SEIA 2022).

Groundwater demand associated with utility-scale ground-mounted solar development would be expected to be low. The Antelope Valley, where such developments could be expected to be proposed, has been in a state of overdraft for decades, although the groundwater basin is now adjudicated. Proposed water sources for any future specific solar projects in the Antelope Valley are speculative. However, the fact that the Antelope Valley Groundwater Basin is an adjudicated basin, and the availability of new access to groundwater would be regulated strictly in accordance with the adjudication, makes it likely that water demand for new utility-scale solar projects (or hydrogen generation projects that require water as feedstock for electrolysis) in that area would be subject to replacement water requirements of the adjudication, supplying water from a different source that could include imported water or recycled water provided by a local water district with sufficient capacity. Further, utility-scale solar energy is not a large demand compared to the overall yield of the Antelope Valley Groundwater Basin. A utility-scale solar energy facility in Antelope Valley required less than 5 acre-feet per year for panel washing (City of Lancaster 2017). A contemporaneous study estimated annual extractions in the Antelope Valley at 31,528 acre-feet per year, with an estimated total natural recharge of 31,200–59,100 acre-feet per year and a safe yield of 110,000 acre-feet per year (City of Lancaster 2017). In light of this contemporaneous study, the use of 5 acre-feet per year for panel washing, plus existing annual extractions of 31,528 acre-feet per year, would be approximately the same as the low estimate of natural recharge, and well within the high estimate of natural recharge and safe yield. Approval from the Watermaster would be required to meet Antelope Valley solar project-related water demand for projects facilitated by Draft 2045 CAP measures and actions with groundwater.

The installation and operation of solar energy systems on rooftops do not involve water use (Los Angeles County 2015c).

In summary, increased demands on groundwater supplies that would result from projects facilitated by Draft 2045 measures and actions are low, and are not expected to be excessive or in quantities that could result in overdraft conditions or other undesirable effects. The existing regulatory framework for groundwater extractions including SGMA, adjudications, and local management requirements would apply to sources within the County and elsewhere in the state. Any new groundwater demands associated with Draft 2045 measures and actions would be subject to these regulatory requirements. Individual project environmental documents would be required to identify groundwater demands and identify available water sources that would avoid significant impacts such as overdraft.

Furthermore, the population that would use these groundwater supplies would not exceed population growth forecasts, and demand from projects facilitated by Draft 2045 CAP measures and actions would be low, within safe yield, or would require replacement water as imposed by the Watermaster of the adjudicated groundwater basin. The existing regulatory framework for adjudicated groundwater basins imposed by the Watermaster would ensure that the Draft 2045 CAP measures and actions would not impede the sustainable management of groundwater. Therefore, neither the Draft 2045 CAP nor projects facilitated by Draft 2045 CAP measures and actions would substantially interfere with groundwater supplies. Resulting impacts would be less than significant.

Groundwater Recharge

Some projects facilitated by Draft 2045 CAP measures and actions (including those facilitated by Measure E1, Transition Existing Buildings to All-Electric, and Measure E4, Improve Energy Efficiency of Existing Buildings) would be limited to redevelopments and reuses of currently developed areas, and so would result in relatively minor increases in impervious areas. Other projects facilitated by Draft 2045 CAP measures and actions could cause an adverse impact on groundwater recharge due to a net increase in impermeable surfacing so as to preclude groundwater recharge. Such projects could include new “greenfield” construction for homes and other structures, new roads, and the compaction of ground due to grading for ground-mounted utility-scale solar or other renewable energy facilities and infrastructure. The County has numerous regulations in place, including the LID Ordinance, that require facilities to be designed to facilitate on-site infiltration. Compliance with these requirements, as well as with project-specific, site-specific mitigation measures or conditions routinely imposed pursuant to individual CEQA and permitting processes, would ensure that neither the Draft 2045 CAP nor projects facilitated by Draft 2045 measures and actions would substantially interfere with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. The impact would be less than significant.

Mitigation: None required.

Criterion c) Whether the Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of a federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding.

Impact 3.11-3: Projects facilitated by the Draft 2045 CAP would not substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects. Projects facilitated by Measure T1, which could increase residential density near high quality transit areas, and by Measure T2, which could result in development to address the jobs/housing balance and increase mixed use, would most likely be located in currently developed areas, and so would have minimal potential to alter existing drainage patterns.

Nonetheless, other projects facilitated by Draft 2045 CAP measures and actions that would entail grading or greenfield development (such as renewable energy and infrastructure projects to decarbonize the building and energy sectors) could alter existing drainage patterns and thereby cause one or more of the identified potential impacts. Construction of projects facilitating Draft 2045 CAP measures and actions could temporarily disturb underlying soils and could result in exposure of soil to runoff. Without precautions, construction activities could produce pollutants in stormwater runoff. Compliance with NPDES permits and other local ordinances described above would control erosion and sedimentation as a result of urban development.

Title 26, Appendix J of the County Code contains the County Grading Code. This code includes regulations for erosion control and water quality for grading operations. NPDES compliance is required for all projects within the unincorporated areas of the County. Additionally, all active grading projects with grading proposed during the rainy season (October 15 to April 15) require an erosion and sediment control plan (ESCP), and grading permits cannot be issued until an ESCP is approved or details for erosion control are included in the grading plan. ESCPs include specific BMPs to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding, or the deposition of mud, debris, or construction-related

pollutants. The BMPs shown in ESCPs must be installed on or before October 15. ESCPs are required to be revised annually or as required by the Building Official to reflect current conditions of a site.

Under the NPDES MS4 Permit, certain categories of development and redevelopment projects must mimic predevelopment hydrology through infiltration, evapotranspiration, and rainfall harvest and use. Projects in the unincorporated areas within the Los Angeles RWQCB region and for which a LID plan is required must limit post-development peak stormwater runoff discharge rates to no greater than the estimated pre-development rate for developments where the increased peak, stormwater discharge rate would result in increased potential for downstream erosion. Construction projects in the Los Angeles RWQCB region and the Lahontan RWQCB region of one acre or more are required to implement BMPs for erosion control and sediment control pursuant to the General Construction Permit. Furthermore, the General Plan Safety Element includes goals and policies that would discourage development within delineated flood hazard zones.

Operation of any future projects also would be independently subject to compliance with state regulation such as NPDES and MS4 permits, which would require implementation of BMPs to reduce erosion and siltation from discharge of runoff. Furthermore, County, under the NFIP, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required pre-development drainage studies, compliance with discharge permits, enhancement of existing waterways, cooperation with the USACE and the LACFCD for updating, and method consistency with the RWQCB and proposed BMPs to protect development within flood risk areas. Compliance with these requirements would ensure that impacts of the Draft 2045 CAP and projects facilitating Draft 2045 CAP measures and actions to existing drainage patterns in the unincorporated areas of the County and in parts of adjoining counties in watersheds extending from the County would be less than significant.

Mitigation: None required.

Criterion d) Whether the Project would otherwise place structures in federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements.

Impact 3.11-4: Projects facilitated by the Draft 2045 CAP would not otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not include specific projects that would place structures in an area where they would require additional flood-proofing and flood insurance. Projects facilitated by Draft 2045 CAP measures and actions would be required to be consistent with the General Plan, including the Housing Element, and zoning, the goals, policies, and requirements of which discourage new development in flood hazard or floodplain areas. Any projects facilitated by the 2045 CAP measures and actions that would be located within a federal 100-year flood hazard or County Capital Flood floodplain area would be independently subject to project design features intended to avoid or reduce impacts. Unavoidable impacts on flood hazard

areas would be subject to approval from the Los Angeles County Flood Control District, which would mitigate the impacts through project designs and floodplain map revisions. These designs would ensure that flood hazards did not encroach onto areas not within the floodplain. Compliance with federal, state, and local requirements would ensure that impacts would be less than significant.

Mitigation: None required.

Criterion g) Whether the Project would, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation.

Impact 3.11-5: Projects facilitated by the Draft 2045 CAP would not, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. (*Less-than-Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that does not include projects that would risk release of pollutants due to project inundation in the event of a flood, tsunami, or seiche. However, future projects facilitated by Draft 2045 CAP measures and actions could do so. Nonetheless, according to the General Plan, several areas have been mapped as a flood hazard zones, and the entire County coastline is considered a tsunami hazard area (Los Angeles County 2015a, 2015c). Thus, there is potential for projects facilitated by Draft 2045 CAP measures and actions to be located in or near a flood hazard, tsunami, or seiche zone and, as a result, become inundated.

Although adoption of the Draft 2045 CAP would not directly result in the release of pollutants, future projects facilitated by Draft 2045 CAP measures and actions could do so. See Impact 3.10-1 in Section 3.10, *Hazards and Hazardous Materials*, which concludes that projects facilitated by Draft 2045 CAP measures and actions would result in a less-than-significant impact regarding the potential to create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. However, Impact 3.10-2 concludes that a significant impact would result (pre-mitigation) regarding the potential for projects facilitated by Draft 2045 CAP measures and actions to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste from solar PV projects, under specified circumstances identified in Section 3.10, into the environment.

Federal, state, and local requirements discourage new development in flood hazard or floodplain areas, and compliance with project-specific, site-specific mitigation measures and conditions of approval imposed as part of a state or local discretionary authorization process would further reduce the potential for the Project to risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone. For example, compliance with County regulations would require risk assessments of flooding from failure of aboveground water storage tanks for any future residential developments downgrade from such storage tanks. If such assessments determine that a proposed building would be affected by such flooding, existing regulations would require either that the building pad for the proposed development be raised above the flood elevation; or that improvements be made to the water tank to reduce the probability and/or

consequence of tank failure, where the owner and/or manager of an aboveground storage tank is willing to allow such improvements. The resulting impact would be less than significant, with the exception of risk of pollutant releases from solar PV project hazardous waste that is improperly stored or disposed of, which would be a significant impact.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste is properly managed. The impact would be less than significant with mitigation incorporated.

Criterion h) Whether the Project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact 3.11-6: Projects facilitated by the Draft 2045 CAP would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that does not propose any project that would conflict with or obstruct implementation of a basin plan or sustainable groundwater management plan. Nonetheless, projects facilitated by Draft 2045 CAP measures and actions could conflict with implementation of such plans if they were to result in violation of water quality standards or require groundwater extraction inconsistent with a groundwater management plan.

Projects facilitated by the Draft 2045 CAP measures and actions would be subject to water quality standards imposed by NPDES permits, including stormwater discharge permits that would impose BMPs to ensure protection of beneficial uses of surface waters governed by the Basin Plan. Projects that would require direct extraction of groundwater would be subject to approval from groundwater sustainability agencies or a Watermaster to ensure consistency with the groundwater sustainability plans. Projects facilitated by Draft 2045 CAP measures and actions would support development already allowed under the General Plan land use assumptions (including the Housing Element) and SCAG's Connect SoCal projections. Further, any future projects would be independently subject to compliance with state regulations such as NPDES and MS4 permits, which would require implementation of BMPs and development to reduce discharge of runoff and maintain water quality. All projects facilitated by Draft 2045 CAP measures and actions would be subject to enforceable requirements of the of the basin plan and SGMA. This requisite compliance would assure that projects facilitating Draft 2045 CAP measures and actions would have less-than-significant impact relative to this criterion.

Mitigation: None required.

3.11.2.4 Cumulative Impacts

For the purposes of this analysis of hydrology and water quality impacts, the geographic area of consideration (i.e., the cumulative impacts study area) comprises the hydrologic regions, major watershed areas, regional groundwater recharge areas, and groundwater basins in the County, inclusive of both incorporated and unincorporated areas. Impacts could result at various locations

within these areas from the initiation of on-the-ground work in furtherance of a project facilitated by Draft 2045 CAP measures and actions until such projects are decommissioned and the sites restored.

Criterion a)

Impact 3.11-7: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (*Less-than-Significant Cumulative Impact*)

The ongoing impacts of past projects are reflected in the environmental setting described in Section 3.11.1.2, including the “impaired” status of 875 segments of coastal shoreline, bays, rivers or streams, lakes, tidal wetlands, and estuaries within the jurisdiction of the Los Angeles RWQCB pursuant to Section 303(d) of the Clean Water Act (SWRCB 2021). For each of these impaired water body segments, TMDLs have been established or are being established to identify the amount of pollution that a water body can receive while remaining in compliance with water quality standards. In addition to the Project, present and reasonably foreseeable future projects would be developed in accordance with requirements of federal, state, and local laws (including the housing and other elements of the General Plan, with the various area plans, ordinances of the County Code), and with the mitigation measures or conditions of approval imposed as part of any project-specific CEQA and permitting processes. Nonetheless, the combined impact of cumulative projects, together with projects facilitated by Draft 2045 CAP measures and actions, could result in violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Thus, a significant adverse cumulative impact could occur related to violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Future projects would be independently subject to compliance with state regulation such as NPDES and MS4 permits, which would require implementation of BMPs and development to reduce discharge of runoff and maintain water quality. Projects facilitated by Draft 2045 CAP measures and actions would contribute a less than cumulatively considerable incremental contribution to the cumulative impact. This incremental contribution would not be cumulatively considerable because compliance with applicable federal, state, and local requirements would avoid or reduce impacts. For example, the Construction General Permit and the County MS4 Permit are designed to limit adverse impacts on water quality. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion b)

Impact 3.11-8: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative decreases groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. (*Less-than-Significant Cumulative Impact*)

Water demand in the unincorporated areas of Los Angeles County is such that annual precipitation and groundwater recharge operations typically are not sufficient for basin recharge in areas such as the Antelope Valley, which has been experiencing overdraft conditions for decades. Therefore, construction and operational activities associated with past, present, and reasonably foreseeable future projects that would draw from groundwater or add substantial areas of impermeable surfaces could result in decreases groundwater supplies or interfere substantially with groundwater recharge such that the projects may impede sustainable groundwater management of the basin. Thus, together with impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to decreases groundwater supplies or interfere substantially with groundwater recharge such that sustainable groundwater management of the basin may be impeded.

All projects facilitated by Draft 2045 CAP measures and actions would be subject to enforceable requirements of the of the Basin Plan, SGMA, and Watermaster-imposed pumping restrictions. Further, the County has numerous regulations in place, including the LID Ordinance, that require facilities to be designed to facilitate on-site infiltration to maintain groundwater recharge. Compliance with these requirements would ensure that the Draft 2045 CAP would contribute a less than cumulatively considerable incremental contribution to any depletion of groundwater. This less-than-significant incremental contribution would not be cumulatively considerable because the Draft 2045 CAP would not cause the population that would potentially use these groundwater supplies to exceed forecasts; and because the demands for groundwater would be low, and managed under SGMA, Watermaster-imposed, or local jurisdiction pumping limits. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion c)

Impact 3.11-9: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative alterations to the existing drainage pattern of the site or area. (*Less-than-Significant Cumulative Impact*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects that involve substantial ground disturbance could result in alterations to the existing drainage patterns. When added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to alterations to the existing drainage pattern.

Projects in the unincorporated areas within the Los Angeles RWQCB region are subject to the LID Standards Manual, which limits post-development peak stormwater runoff discharge rates to no greater than the estimated pre-development rate to reduce the potential for downstream erosion. Under the NPDES MS4 Permit, certain categories of development and redevelopment projects must mimic predevelopment hydrology through infiltration, evapotranspiration, and rainfall harvest and use. Furthermore, the County, under the NFIP, has created standards and policies that require predevelopment drainage studies to protect development within flood risk areas. Future projects would be independently subject to compliance with state and federal regulations minimizing impacts associated with drainage modifications, including the NFIP and Clean Water Act requirements. The Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts to drainages in the County. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion d)

Impact 3.11-10: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas, which would require additional flood-proofing and flood insurance requirements. (*Less-than-Significant Cumulative Impact*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects (including the Housing and other elements of the General Plan, the various area plans, and ordinances of the County Code) could result in placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas that would require additional flood-proofing and flood insurance requirements. Thus, added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to placement of structures in federal 100-year flood hazard or County Capital Flood floodplain areas, which would require additional flood-proofing and flood insurance requirements.

The County, under the NFIP, has created standards and policies that require pre-development drainage studies to protect development within flood risk areas. Future projects would be independently subject to compliance with state and federal regulations minimizing impacts associated with drainage modifications, including the NFIP and Clean Water Act requirements. The Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts to flood hazards in the County. A less-than-significant cumulative impact would result.

Mitigation: None required.

Criterion g)

Impact 3.11-11: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects could result in flood hazard, tsunami hazard, or seiche zones, or risk release of pollutants due to project inundation if placed in one of these hazard areas. Thus, added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to flood hazard, tsunami, or seiche zones, or the risk of a release of pollutants due to project inundation.

Federal, state, and local requirements discourage new development in flood hazard or floodplain areas. Compliance with project-specific, site-specific mitigation measures and conditions of approval imposed as part of a state or local discretionary authorization process would further reduce the potential for the Project to risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone. Future projects would be independently subject to compliance with state and federal regulations minimizing impacts associated with flood risk, including the NFIP and Clean Water Act requirements. The Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts related to flood, tsunami, or seiche water quality hazards in the County, with the exception of risk of pollutant releases from solar PV project hazardous waste that is improperly stored or disposed of, which would be significant impact that is cumulatively considerable.

Mitigation: Implement Mitigation Measure 3.10-2.

Significance after Mitigation: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste is properly managed. The impact would be less-than-cumulatively-considerable and less than significant with mitigation incorporated.

Criterion h)

Impact 3.11-12: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute to cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less-than-Significant Cumulative Impact*)

Construction and operational activities associated with past, present, and reasonably foreseeable future projects could result in conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, when added to impacts of projects facilitated by Draft 2045 CAP measures and actions, a significant adverse cumulative impact could occur related to conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Projects facilitated by the Draft 2045 CAP measures and actions would be subject to water quality standards imposed by NPDES permits, including stormwater discharge permits that would

impose BMPs to ensure protection of beneficial uses of surface waters governed by the Basin Plan. Projects that would require direct extraction of groundwater would be subject to approval from groundwater sustainability agencies or a Watermaster to ensure that cumulative groundwater demands would not cause undesirable results as defined in SGMA. Projects facilitated by Draft 2045 CAP measures and actions would support development already allowed under the General Plan land use assumptions (including the Housing Element) and SCAG's Connect SoCal projections. Further, any future projects would be independently subject to compliance with state regulations such as NPDES and MS4 permits, which would require implementation of BMPs and development to reduce discharge of runoff and maintain water quality. All projects facilitated by Draft 2045 CAP measures and actions would be subject to enforceable requirements of the of the Basin Plan and SGMA. As a result of these existing regulations, the Draft 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts on water quality or groundwater resources managed under water quality control plans or sustainable groundwater management plans. A less-than-significant cumulative impact would result.

Mitigation: None required.

3.12 Land Use and Planning

This section evaluates land use and planning issues to determine whether the Draft 2045 CAP would result in a significant impact related to a physical division of an established community or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to land use and planning request that the EIR demonstrate consistency of the Draft 2045 CAP with *OurCounty: Los Angeles Countywide Sustainability Plan* (OurCounty Sustainability Plan) and Connect SoCal (SCAG 2020), and that it state that new subdivisions in very high fire hazard severity zones are prohibited.

3.12.1 Setting

3.12.1.1 Study Area

The study area for this analysis of impacts related to land use and planning consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See **Figure 2-1, *Map of Unincorporated Los Angeles County***, in Chapter 2.

3.12.1.2 Environmental Setting

This section describes the existing land use resources present in the unincorporated areas of Los Angeles County. This information has been drawn and modified from the *Los Angeles County General Plan 2035* and the *Los Angeles County General Plan Update Draft Environmental Impact Report* (County Planning 2014, 2015a).

Existing Land Use Pattern

With approximately 4,083 square miles, including a 75-mile stretch of the Pacific coast of Southern California, Los Angeles County is geographically one of the largest counties in the United States. Los Angeles County is bordered to the southeast by Orange County and San Bernardino County, to the north by Kern County, and to the west by Ventura County. Los Angeles County also includes two offshore islands: Santa Catalina Island and San Clemente Island.

Los Angeles County includes 88 cities and approximately 2,650 square miles of unincorporated area. The unincorporated areas are home to approximately one million people. See **Figure 3.1-1, *Regional Vicinity Map***, in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. Regional environmental planning considerations and the local, state, and federal agencies with jurisdiction over their implementation and enforcement are described in Section 3.12.1.3,

Regulatory Setting, to aid in the understanding of how changes facilitated by the Project could affect the existing environment.

The unincorporated areas in northern Los Angeles County are covered by large amounts of sparsely populated land, including Angeles National Forest and parts of Los Padres National Forest and the Mojave Desert. In the western portion of Los Angeles County, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in southern and eastern Los Angeles County consist of many noncontiguous land areas, often referred to as *unincorporated urban islands*, including areas in South Los Angeles, East Los Angeles, and the San Gabriel Valley.

Existing Land Uses

Existing land use categories within the County are summarized in **Table 3.12-1, Summary of Existing Land Use Categories in Unincorporated Los Angeles County**. Within these categories, diverse land uses include residential, rural, commercial, industrial, natural resources, public and semi-public (office, institutional), and mixed uses (County Planning 2015a). The San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, and Puente Hills shape the topography within the region. Additional details about existing land uses are summarized in Section 5.10 of the General Plan EIR, the setting and policies of which are incorporated by reference (County Planning 2014, 2015a).

**TABLE 3.12-1
 SUMMARY OF EXISTING LAND USE CATEGORIES IN UNINCORPORATED LOS ANGELES COUNTY**

| Land Use Type | Acres |
|--------------------------------|------------------|
| Residential | 51,480 |
| Rural | 641,321 |
| Commercial | 5,268 |
| Industrial | 7,304 |
| Natural Resources ^a | 844,224 |
| Public and Semi-Public | 79,920 |
| Mixed Use | 291 |
| Specific Plan ^b | 13,556 |
| Other ^c | 1,080 |
| Total | 1,644,444 |

NOTES:

^a "Natural Resources" includes all natural resources and categories (e.g., natural areas, developed parks waterways, golf courses) and military areas (San Clemente Island and Edwards Air Force Base).

^b Specific plans include a combination of land uses.

^c Some area and community plans have special categories that do not fit into the scheme of the Land Use Legend categories (such as "special use sites," parking areas, and senior citizen density bonus areas).

SOURCE: County Planning 2015a

3.12.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, and policies related to land use apply to the Project, and only one set of federal regulations applies to the use of airspace, as discussed below.

Federal Aviation Administration

The authority of the Federal Aviation Administration (FAA) over proposed projects is defined in Code of Federal Regulations Title 14, Part 77 (14 CFR 77), “Safe, Efficient Use, and Preservation of the Navigable Airspace.” The proponent of any project proposed within or near an airport, as described in “Construction or Alteration Requiring Notice,” is required to coordinate with the FAA to ensure that the construction and operation of the proposed project is consistent with all FAA requirements (14 CFR 77.9).

State Laws, Regulations, and Policies

State Planning and Zoning Law

State planning law (Government Code Section 65300) requires every city and county in California to adopt a comprehensive, long-term general plan for the physical development of the jurisdiction, and of any land outside its boundaries that, in the planning agency’s judgment, bears relation to its planning (the city or county’s *sphere of influence*). A general plan should consist of an integrated and internally consistent set of goals and policies grouped by topic into a set of elements and guided by a jurisdiction-wide vision. State law requires that a general plan address seven elements or topics (land use, circulation, housing, conservation, open space, noise, and safety) and allows city or county discretion regarding the inclusion of additional topics and the arrangement and content of the plan as a whole. Additionally, each specific and applicable requirement in the state planning law should be examined to determine whether there are environmental issues in the community that the general plan should address, such as hazards or flooding.

Government Code Section 65302 et seq.

California law (Government Code Section 65302 et seq.) requires each city and county to include a land use element in its general plan. The land use element must designate the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, greenways as defined in Civil Code Section 816.52, and other categories of public and private uses of land.

Government Code Section 65302(c) states that each local agency in California must include a housing element in its general plan as provided in Government Code Section 65580 et seq.

Government Code Section 65580 et seq.

Government Code Section 65580 et seq. requires each local agency to consider economic, environmental, and fiscal factors, as well as community goals as set forth in the general plan to prepare and adopt a housing element. The housing element must identify and analyze existing and projected housing needs within the city or county and include statements of the jurisdiction’s goals, policies, quantified objectives, and scheduled programs to preserve, improve, and develop housing.

In compliance with Section 65583(a)(3), housing elements must include an inventory of land suitable for residential development, including vacant sites and sites having potential for redevelopment, and an analysis of the relationship of zoning and public facilities and services to these sites.

Sustainable Communities and Climate Protection Act of 2008

Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008, was enacted in 2008 and relates to regional land use and transportation policies to reduce statewide greenhouse gas (GHG) emissions. The law requires the state's 18 metropolitan planning organizations to adopt sustainable community strategies that, if implemented, would help each region achieve their respective targets established by the California Air Resources Board for reducing GHG emissions from automobiles and light trucks. The Southern California Association of Governments (SCAG) adopted its updated Regional Transportation Plan and Sustainable Communities Strategy in October 2020 to address the requirements of Senate Bill 375.

California Coastal Act

Pursuant to the California Coastal Act of 1976, the California Coastal Commission partners with coastal cities and counties such as the County to plan and regulate the use of land and water in the coastal zone. Development activities generally require a coastal permit from either the California Coastal Commission or the local government. The Coastal Act broadly defines *development activities* to include (among others) construction of buildings, divisions of land, and activities that change the intensity of land use or public access to coastal waters.

The Coastal Act includes specific policies that address issues such as shoreline public access and recreation, lower-cost visitor accommodations, protection of terrestrial and marine habitats, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, development design, power plants, ports, and public works. The policies of the Coastal Act constitute the statutory standards applied to planning and regulatory decisions made by the commission and by local governments.

Regional and Local Laws, Regulations, and Policies

Los Angeles County General Plan 2035

The General Plan is a long-range planning document that, alongside the zoning code, guides development in unincorporated Los Angeles County. It was adopted on October 6, 2015, and provides a policy framework for how and where the unincorporated areas would grow through the year 2035. The General Plan also establishes goals, policies, and programs to foster healthy, livable, and sustainable communities.

General Plan Planning Areas

The General Plan identifies 11 planning areas. The establishment of planning areas provides a mechanism for local communities to work with the County to develop coordinated plans that respond to each planning area's unique and diverse character. According to the *State of California General Plan Guidelines* (OPR 2017), an *area plan* is a planning tool that focuses on a particular region or community within the overall general plan area. An area plan is adopted as an amendment to the county general plan. It refines the policies of the county general plan as they

apply to a smaller geographic area and is implemented by ordinances and other discretionary actions, such as zoning regulations and community standards districts. The area plan must be internally consistent with the general plan, but it need not address all required elements of the general plan when the overall general plan satisfies these requirements.

The County has adopted three area plans: the Antelope Valley Area Plan, Santa Clarita Valley Area Plan, and Santa Monica Mountains North Area Plan. Consideration of two other area plans—the Metro Area Plan and East San Gabriel Valley Area Plan—is pending. In addition, the County has seven adopted community plans: the Altadena Community Plan, East Los Angeles Community Plan, Hacienda Heights Community Plan, Rowland Heights Community Plan, Twin Lakes Community Plan, Walnut Park Neighborhood Plan, and West Athens–Westmont Community Plan. The County has also adopted three local coastal land use plans: the Marina del Rey Local Coastal Land Use Plan, Santa Monica Mountains Land Use Plan, and Santa Catalina Island Local Coastal Land Use Plan (County Planning 2022b).

General Plan Elements

The General Plan consists of the following 10 elements:

- **Land Use Element:** The Land Use Element provides strategies and planning tools to facilitate and guide future development and revitalization efforts. The Land Use Element designates the proposed general distribution, general location, and extent of uses. The Figure, *General Plan Land Use Policy*, serves as the “blueprint” for how land would be used to accommodate growth and change in the unincorporated areas. Land use policies for projects within the unincorporated areas would be relevant to the study area for the Project.
- **Mobility Element:** The Mobility Element provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Highway Plan and Bicycle Master Plan are sub-components of the Mobility Element.
- **Air Quality Element:** The Air Quality Element summarizes air quality issues and outlines the goals and policies that would improve air quality and reduce GHG emissions. The *Unincorporated Los Angeles County Community Climate Action Plan 2020* (2020 CCAP) is a sub-component of the Air Quality Element. The role of the Draft 2045 CAP is to outline proposed GHG emissions reduction measures, and actions that would result in long-term reductions in air pollutant emissions. The Draft 2045 CAP’s measures and actions encompass the broad categories of climate leadership, transportation, building energy and water, and waste. Projects facilitated by the Draft 2045 CAP, once approved, would be required to undergo subsequent environmental review under CEQA if they require a discretionary approval from a state or local agency, and would be subject to all applicable requirements of federal, state, and local law. Policies in the Air Quality Element are being updated as a part of this Project to set the policy framework for actions found in the Draft 2045 CAP. See Table 2-1, *Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element*, in Chapter 2, *Project Description*.
- **Conservation and Natural Resources Element:** The Conservation and Natural Resources Element guides the long-term conservation of natural resources and preservation of available open space areas.
- **Parks and Recreation Element:** The Parks and Recreation Element plans and provides for an integrated parks and recreation system that meets the needs of residents.

- **Noise Element:** The Noise Element reduces and limits the exposure of the general public to excessive noise levels. The Noise Element sets the goals and policy direction for the management of noise.
- **Safety Element:** The purpose of the Safety Element is to reduce the potential risk of death, injuries, and economic damage resulting from natural and human-made hazards.
- **Public Services and Facilities Element:** The Public Services and Facilities Element promotes the orderly and efficient planning of public services and facilities and infrastructure in conjunction with development and growth.
- **Economic Development Element:** The Economic Development Element outlines economic development goals, and provides strategies that contribute to economic well-being.
- **2021–2029 Housing Element:** The Housing Element serves as a policy guide to address the comprehensive housing needs of the unincorporated areas of the County. The primary focus of the Housing Element is to ensure decent, safe, sanitary, and affordable housing for current and future residents of the unincorporated areas, including those with special needs (County Planning 2021a).

Local Coastal Programs

Local coastal programs establish detailed land use policy and development standards within their respective coastal zone segments. In Los Angeles County, there are five unincorporated areas in the state-designated coastal zone: Ballona Wetlands, Marina del Rey, Santa Catalina Island, a portion of the Santa Monica Mountains, and San Clemente Island. In accordance with the California Coastal Act, all development within the coastal zone must first obtain a coastal development permit. The County has certified local coastal programs for Santa Catalina Island, Marina del Rey, and a portion of the Santa Monica Mountains. This transfers coastal permitting authority over most new development to the County.

General Plan Sustainability Principles

The following guiding principles established in the General Plan emphasize the concept of sustainability (County Planning 2014):

1. **Employ Smart Growth:** Shape new communities to align housing with jobs and services; and protect and conserve the County’s natural and cultural resources, including the character of rural communities.
2. **Ensure community services and infrastructure are sufficient to accommodate growth:** Coordinate an equitable sharing of public and private costs associated with providing or upgrading community services and infrastructure to meet growth needs.
3. **Provide the foundation for a strong and diverse economy:** Protect areas that generate employment and promote programs that support a stable and well-educated workforce. This would provide a foundation for a jobs-housing balance and a vital and competitive economy in the unincorporated areas.
4. **Excellence in environmental resource management:** Carefully manage the County’s natural resources, such as air, water, wildlife habitats, mineral resources, agricultural land, forests, and open space in an integrated way that is both feasible and sustainable.

- 5. Provide healthy, livable, and equitable communities:** Design communities that incorporate their cultural and historic surroundings, are not overburdened by nuisance and negative environmental factors, and provide reasonable access to food systems. These factors have a measurable effect on public well-being.

General Plan Policies

The following General Plan policies related to land use and planning are relevant to the Draft 2045 CAP (County Planning 2015a, 2022a):

Air Quality Element

Approval of the Draft 2045 CAP would result in the General Plan updates shown in Table 2-1, *Proposed Updates to the Los Angeles County General Plan 2035 Air Quality Element*, and Table 2-2, *Proposed Updates to the Los Angeles County General Plan 2035 Implementation Program*, in Chapter 2, *Project Description*.

2021–2029 Housing Element

Policy 1.1: Identify and maintain an adequate inventory of sites to accommodate the County's RHNA.

Policy 2.2: Encourage multi-family residential and mixed-use developments along major commercial and transportation corridors.

Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated areas to increase housing choices for all economic segments of the population.

Policy 11.1: Ensure consistency with the OurCounty Sustainability Plan through equitable and sustainable land use policy.

Policy 11.3: Support policies and programs that aim to reduce resource consumption, such as solar panel installation, cool roof installation, back-up battery power, and incentivization of housing near transit.

Policy 11.4: Prioritize and concentrate new housing developments in areas intended to reduce environmental impacts and with adequate existing and planned infrastructure, such as road networks and water supply, including any areas covered by a County-approved specific plan or area plan that plans for housing, affordable housing, natural resource protection, open space preservation, adequate water supplies, necessary infrastructure, wildfire protection, energy conservation, and other sustainable development features.

Conservation and Natural Resources Element

Policy C/NR 8.1: Protect ARAs [Agricultural Resource Areas], and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses.

Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, that are incompatible with agricultural activities.

Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.

Policy C/NR 13.8: Manage development in HMAs [Hillside Management Areas] to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

Land Use Element

Policy LU 6.1: Protect rural communities from the encroachment of incompatible development that conflict with existing land use patterns and service standards.

Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.

Policy LU 6.3: Encourage low density and low intensity development in rural areas that is compatible with rural community character, preserves open space, and conserves agricultural land.

Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.

Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.

Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.

Mobility Element

Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible:

- Designs that limit dead-end streets and dead-end sidewalks.
- Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops.
- Designs for curb ramps, which are pedestrian friendly and compliant with the Americans with Disabilities Act (ADA).
- Perpendicular curb ramps at locations where it is feasible.
- Pedestrian walking speed based on the latest standard for signal timing. Slower speeds would be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.)
- Approved devices to extend the pedestrian clearance times at signalized intersections.
- Accessible Pedestrian Signals (APS) at signalized intersections.
- Pedestrian crossings at signalized intersections without double or triple left or right turn lanes.

- Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections.
- Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes.
- Advance stop lines at signalized intersections.
- Pedestrian Hybrid Beacons.
- Medians or crossing islands to divide long crossings.
- High visibility crosswalks.
- Pedestrian signage.
- Advanced yield lines for uncontrolled crosswalks.
- Rectangular Rapid Flashing Beacon or other similar approved technology at locations of high pedestrian traffic.
- Safe and convenient crossing locations at transit stations and transit stops located at safe intersections.

Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.

Policy M 2.8: Connect trails and pedestrian and bicycle paths to schools, public transportation, major employment centers, shopping centers, government buildings, residential neighborhoods, and other destinations.

Policy M 4.3: Maintain transit services within the unincorporated areas that are affordable, timely, cost-effective, and responsive to growth patterns and community input.

Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design, particularly in the first-last mile connections to transit, to encourage transit ridership.

Public Services and Facilities Element

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.

Policy PS/F 1.5: Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development.

Policy PS/F 1.7: Consider resource preservation in the planning of public facilities.

Safety Element

The County adopted a Safety Element Update in July 2022.

Policy S 3.1: Strongly discourage development in the County's Flood Hazard Zones, unless it solely provides a public benefit.

Policy S 4.1: Prohibit new subdivisions in VHFHSZs unless: (1) the new subdivision is generally surrounded by existing or entitled development or is located in an existing

approved specific plan or is within the boundaries of a communities facility district adopted by the County prior to January 1, 2022, including any improvement areas and future annexation areas identified in the County resolution approving such district; (2) the County determines there is sufficient secondary egress; and (3) the County determines the adjoining major highways and street networks are sufficient for evacuation as well as safe access for emergency responders under a range of emergency scenarios, as determined by the County. Discourage new subdivisions in all other FHSZs.

Significant Ecological Areas

As part of the General Plan's Conservation/Open Space and Land Use elements, the County has identified and adopted policies for Significant Ecological Areas (SEAs). The objective of the SEAs is to preserve the County's genetic and physical ecological diversity by designating biological resource areas capable of sustaining themselves into the future. The SEA designation is given to land that contains irreplaceable biological resources, and includes undisturbed or lightly disturbed habitats that support valuable and threatened species and linkages and corridors to promote species movements. SEAs are not wilderness preserves, and much of the land within SEAs is privately held, is used for public recreation, or abuts developed areas. SEAs are intended to ensure that privately held lands retain the right of reasonable use, while avoiding activities and developments that are incompatible with long-term survival of the biological resources and habitats within the SEAs.

Antelope Valley Area Plan

The County adopted the Antelope Valley Area Plan in June 2015. The Antelope Valley Planning Area is located in the northern portion of Los Angeles County and is the largest Planning Area. It borders San Bernardino County to the east, Ventura County to the west, and Kern County to the north. The unincorporated portion of the Planning Area covers 1,800 square miles, or 44 percent of Los Angeles County. The cities in the Planning Area are the City of Lancaster and City of Palmdale. The community-based plan contains policies and standards that regulate land use within the area.

The following Antelope Valley Area Plan policies related to land use and planning are relevant to the Draft 2045 CAP (County Planning 2015b):

Policy LU 1.2: Limit the amount of potential development in rural preserve areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of the Antelope Valley Area Plan.

Policy LU 1.3: Maintain the majority of the unincorporated Antelope Valley as Rural Land, allowing for agriculture, equestrian and animal-keeping uses, and single-family homes on large lots.

Policy LU 1.5: Provide varied lands for residential uses sufficient to meet the needs of all segments of the population, and allow for agriculture, equestrian uses and animal-keeping uses in these areas where appropriate.

Policy LU 5.3: Preserve open space areas to provide large contiguous carbon sequestering basins.

Policy LU 6.2: Ensure that the Area Plan is flexible in adapting to new issues and opportunities without compromising the rural character of the unincorporated Antelope Valley.

Policy ED 1.11: Encourage the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.

Los Angeles County Zoning Code

The County Zoning Code (Title 22–Planning and Zoning) implements the General Plan and provides specific development and land use standards. The purpose of the Zoning Code is to provide compatible use of land within the County while protecting resources, consistent with the needs of residential, commercial, and industrial developments, and the public health, safety, welfare, and general prosperity of residents.

Los Angeles County Hillside Management Areas

The Hillside Management Area (HMA) Ordinance applies to all unincorporated areas of Los Angeles County that contain terrain with a natural slope of 25 percent or greater. The goal of the ordinance is to ensure that development preserves the physical integrity and scenic value of HMAs, provides open space, and enhances community character. Locating development outside of HMAs to the greatest extent feasible would be the first emphasis of sensitive hillside design. Where avoidance is not feasible, development of HMAs would be located in the lowest and flattest areas of the hillside to minimize impacts on steeper hillside areas. Last, development would use a variety of sensitive hillside design techniques to ensure compatibility with the hillside and enhance community character. Development within HMAs is regulated under the Special Management Area provisions of Chapter 22.104 of the County Planning and Zoning Code.

Los Angeles County Renewable Energy Ordinance

The County Board of Supervisors adopted the Los Angeles County Renewable Energy Ordinance (REO) on December 13, 2016. It became effective on January 12, 2017.

The REO updates the County’s planning and zoning code for the review and permitting of solar projects and some wind energy projects in a manner that protects public health, safety, and welfare and minimizes significant impacts on the environment. Renewable energy projects facilitated by the ordinance would help California meet its goals for generating renewable energy and reducing GHG emissions, while minimizing environmental and community impacts.

Small-Scale Projects

The REO incentivizes small-scale solar projects that generate energy for on-site use, as well as projects mounted on structures, such as on rooftops and over parking lots. The ordinance provides these incentives by establishing a simplified, streamlined permitting process. Encouraging distributed generation reduces dependence on ground-mounted utility-scale projects as sources for renewable energy.

Utility-Scale Projects

The REO provides comprehensive regulations for ground-mounted utility-scale solar facilities, which reflect the need for careful review of these projects to minimize environmental and community impacts. These requirements include placing transmission lines underground except where aboveground crossings are otherwise required and incorporating measures designed to minimize the generation of fugitive dust.

In addition, the REO prohibits ground-mounted utility-scale solar facilities in the SEAs and Economic Opportunity Areas designated in the County's General Plan and the Antelope Valley Area Plan.

Airport Land Use Plans

An airport land use commission (ALUC) has been established for each county in the state that has one or more public-use airports. ALUCs are formed with the specific intent of implementing state law regarding airports and surrounding land use compatibility. An *airport land use compatibility plan* (ALUCP) is a planning document that contains policies for promoting safety and compatibility between public-use airports and the communities that surround them. The County ALUC has adopted the comprehensive *Los Angeles County Airport Land Use Compatibility Plan*, which covers all airports within its jurisdiction. The document was formerly known as the *Los Angeles County Airport Land Use Plan* and the *Los Angeles County Airport ALUC Comprehensive Land Use Plan*. The ALUC also has adopted separate ALUCPs for Fox Airfield and Brackett Field Airport. An ALUCP for an individual airport supersedes the Countywide ALUCP.

Regional planning commissioners serve as the County ALUC. There are 15 airports in the unincorporated areas that are within the County ALUC's jurisdiction. Five of these airports are owned by the County, nine are owned by other public entities, and one is privately owned (ALUC 2022).

OurCounty: Los Angeles Countywide Sustainability Plan

OurCounty: Los Angeles Countywide Sustainability Plan (OurCounty Sustainability Plan) is a strategic plan that does not supersede land use plans adopted by the Board of Supervisors, including the General Plan. Instead, the OurCounty Sustainability Plan is a forward-looking strategic plan that establishes a common, Countywide sustainability vision for all of Los Angeles County. Creating a sustainable and equitable Los Angeles County is a collective responsibility that requires regional action. The OurCounty Sustainability Plan is organized around 12 cross-cutting goals that describe a shared vision for a sustainable Los Angeles County (Los Angeles County Chief Sustainability Office, 2019):

Goal 1: Resilient and healthy community environments where residents thrive in place.

Goal 2: Buildings and infrastructure that support human health and resilience.

Goal 3: Equitable and sustainable land use and development without displacement.

Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy.

Goal 5: Thriving ecosystems, habitats, and biodiversity.

Goal 6: Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities.

Goal 7: A fossil fuel-free LA County.

Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency.

Goal 9: Sustainable production and consumption of resources.

Goal 10: A sustainable and just food system that enhances access to affordable, local, and healthy food.

Goal 11: Inclusive, transparent, and accountable governance that facilitates participation in sustainability efforts, especially by disempowered communities.

Goal 12: A commitment to realize OurCounty sustainability goals through creative, equitable, and coordinated funding and partnerships.

Southern California Association of Governments

SCAG is the designated regional planning agency for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. SCAG is a joint powers agency with responsibilities pertaining to regional issues. SCAG's mandated responsibilities include developing plans and policies with respect to the region's population growth, transportation programs, air quality, housing, land use, sustainability, and economic development.

On September 3, 2020, SCAG's Regional Council adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2045 RTP/SCS), also known as Connect SoCal. The 2045 RTP/SCS presents the transportation vision for the region through the year 2045 and builds upon and expands land use and transportation strategies previously established to increase mobility options and achieve a more sustainable growth pattern. The 2045 RTP/SCS includes new initiatives at the intersection of land use, transportation, and technology to close the gap and reach the state's GHG emissions reduction goals. Also, the 2045 RTP/SCS contains baseline socioeconomic projections that are used as the basis for SCAG's transportation planning, and the provision of services by other regional agencies. The 2045 RTP/SCS includes 10 goals that fall into four core categories: economy, mobility, environment, and healthy/complete communities.

The 2045 RTP/SCS goals are as follows:

Goal 1: Encourage regional economic prosperity and global competitiveness.

Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.

Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.

Goal 4: Increase person and goods movement and travel choices within the transportation system.

Goal 5: Reduce GHG emissions and improve air quality.

Goal 6: Support healthy and equitable communities.

Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.

Goal 8: Leverage new transportation technologies and data-driven solutions that result in more-efficient travel.

Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.

Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.

3.12.2 Impact Analysis

3.12.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact related to land use and planning if it would:

- a) Physically divide an established community;
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact; or
- c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas.

As described below, the Initial Study analysis determined that less-than-significant impacts would occur related to criteria a) and c) (Appendix A.2).

As discussed in Initial Study Section 11, *Land Use and Planning*, under criterion a), projects facilitating Draft 2045 CAP measures and actions would generally improve connections between and within communities. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. No changes to General Plan land use designations are proposed as part of the Draft 2045 CAP. Therefore, adoption of the Draft 2045 CAP would result in less-than-significant impacts related to the potential to divide an established community.

See Section 3.8, *Geology and Soils*, under criterion f) regarding consistency with goals and policies related to HMAs, and see Section 3.5, *Biological Resources*, under criterion f) regarding consistency with goals and policies related to SEAs. As indicated in these sections, future projects facilitated by Draft 2045 CAP measures and actions would be required to comply with local policies or ordinances protecting HMAs and biological resources, such as SEAs, on a project-specific basis. Thus, the impact related to the possibility that the Draft 2045 CAP could conflict

with the goals and policies of the General Plan related to HMAs and SEAs would be less than significant.

For these reasons, considerations related to division of an established community and to a conflict with policies related to the HMAs or SEAs—criterion a) and criterion c), respectively—are not analyzed further in this section.

3.12.2.2 Methodology

CEQA Guidelines Section 15125(d) requires an EIR to discuss any project inconsistencies with applicable general plans, specific plans, and regional plans adopted for the purpose of avoiding or mitigating an environmental impact. This analysis focuses on general plans and regional plans relevant to land use consistency. Consistency with applicable local and regional plans for other resources, such as air quality, biological resources, geology and soils, and transportation are addressed in other resource sections in this Chapter 3 or in the Initial Study (Appendix A2). These include consistency with goals and policies related to HMAs or related to SEAs. As mentioned previously, these topics are analyzed in Section 3.8, *Geology and Soils*, under criterion f), and Section 3.5, *Biological Resources*, under criterion f), respectively. Consistency with goals and policies of the General Plan’s Air Quality Element and applicable air quality plan are addressed in Section 3.2, *Air Quality*, under criterion a).

For purposes of this analysis, the Draft 2045 CAP is considered consistent with land use plans and policies if the Draft 2045 CAP as a whole meets the general intent of the plans and/or would not preclude the attainment of their primary goals. Consistency with plans is determined by considering consistency with the plans as a whole, and not with each plan policy. (See, e.g., *Sierra Club v. County of Napa* (2004) 121 Cal. App. 4th 1490, 1509.) The analysis describes the consistency of the Draft 2045 CAP with the applicable goals and policies of the General Plan, with the OurCounty Sustainability Plan, and with the regional measures listed in SCAG’s 2045 RTP/SCS. For measures shown to be consistent with applicable land use plans and policies, future projects facilitated by these measures and actions also would be consistent with the General Plan, including the land use assumptions included in the 2021–2029 Housing Element.

3.12.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of the individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic (PV) projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures that could result, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of land use and planning–related impacts. These and other relevant measures and actions include the following:

- *New ordinances and programs*: Actions ES3.1, ES3.2, ES4.1, ES4.5, ES5.1, ES5.3, T4.5, T4.8, T4.9, T5.1, T6.1, T6.3, T8.2, T8.3, E1.1, E1.3, E2.1, E2.2, E2.3, E3.2, E3.3, E3.4, E4.1, E4.2, E5.1, E5.2, E5.3, E6.1, E6.2, E6.5, W1.2, W1.3, W2.1, and W2.2.
- *Changes to existing zoning*: Action ES1.1.
- *Residential densification of areas near transit*: Action T1.1.

Each of these actions could affect land use and planning consistency going forward. Specific impacts related to land use and planning of the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, are analyzed below. The time frame during which implementing these actions and measures would affect land use and planning would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation would actually affect land use or planning (e.g., whether any division of an established community would result). Any impact would occur immediately and, once it occurs, could last as long as an inconsistency with a plan, policy, or ordinance remains. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite

GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion b) Whether the Project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.

Impact 3.12-1: Projects facilitated by the Draft 2045 CAP would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. (*Less-than-Significant Impact*)

As discussed in Chapter 2, *Project Description*, the County is preparing the Draft 2045 CAP in response to the state's efforts to ensure that the County contributes its fair share to statewide GHG emissions reductions. The Draft 2045 CAP identifies measures to effectively meet GHG emissions reduction targets for 2030, 2035, and 2045, and to make progress toward an aspirational goal of carbon neutrality by 2045. The Draft 2045 CAP furthers the vision and goals of the OurCounty Sustainability Plan and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP.

Table 3.12-2, *Matrix of Draft 2045 Climate Action Plan Actions and Consistency with Relevant Plans*, relates applicable General Plan policies to the proposed Draft 2045 CAP measures and actions to meet GHG emissions reduction targets. As shown in the table, each Draft 2045 CAP measure is consistent with many General Plan policies. The table also provides an indication of how each Draft 2045 CAP measure is consistent with many other adopted land use plans and policies, including the Antelope Valley Area Plan, SCAG's 2045 RTP/SCS and the OurCounty Sustainability Plan. The analysis in Table 3.12-2 shows that the Draft 2045 CAP measures would be consistent with applicable goals and the vast majority of applicable policies of the General Plan as well as other relevant plans and policies.

In addition, certain Draft 2045 CAP measures and actions could be considered inconsistent with certain General Plan and Antelope Valley Area Plan policies, as explained below. However, consistency with plans is a fact-based determination made by considering a particular project's consistency with the plans as a whole, and not with each plan policy.

The Draft 2045 CAP is a policy document that does not include specific projects that would have a direct, adverse effect related to land use planning. Nonetheless, many of the future projects facilitated by Draft 2045 CAP measures and actions would involve retrofitting of existing buildings, development along existing transit areas, infill projects in urban locations that are already developed, electric vehicle charging stations, or distributed energy resources such as rooftop solar panels.

Larger scale projects facilitated by the Draft 2045 CAP in more rural or open areas (such as utility-scale solar generation facilities, waste handling facilities, or water recycling facilities) and ground-mounted energy systems on a hillside or desertscape would be consistent with many General Plan policies, but could, depending on project specifics and siting details, be inconsistent with certain General Plan policies related to land use, specifically Policies LU 6.1, LU 6.2, LU 6.3, LU 10.3, LU 10.5, LU 10.10, C/NR 13.1, and C/NR 13.8.

Large-scale projects facilitated by the Draft 2045 CAP in more rural or open areas, and ground-mounted energy systems on hillsides or in desertescapes, could conflict with General Plan Policy LU 6.1, which is intended to protect rural communities from incompatible development; Policy LU 6.2, which encourages land uses and developments compatible with the natural environment and landscape; and Policy LU 6.3, which encourages low-density and low-intensity development in rural areas that is compatible with rural community character, preserves open space, and conserves agricultural land. These types of development may not be consistent with the surrounding rural character because of the visual impact of man-made structures on the rural landscape and incompatibility with existing land use patterns.

Further, large-scale projects could conflict with Policy LU 10.3 and Policy LU 10.5 if the design and scale of new development would be inconsistent with the massing, materials, color, detailing, or ornament in the built environment of the surrounding area and location, or if it would affect the unique character of districts, neighborhoods, or communities. Future projects facilitated by the Draft 2045 CAP may not promote architecturally distinctive buildings and focal points at prominent locations or protect scenic resources through land use regulations that mitigate development impacts; thus, these projects may be inconsistent with Policy LU 10.10 and Policy C/NR 13.1, respectively. Future projects facilitated by the Draft 2045 CAP such as ground-mounted energy systems on hillsides may be developed in HMAs, which would have the potential to conflict with Policy C/NR 13.8, which requires the management of development within HMAs to protect their natural and scenic character.

In addition, depending on project specifics and siting details, future projects facilitated by the Draft 2045 CAP in more rural or open areas within the Antelope Valley Planning Area, although consistent with many Antelope Valley Area Plan policies, could be inconsistent with certain land use policies of the Antelope Valley Area Plan, including Policy LU 6.2. Solar facilities in and around rural communities in the Antelope Valley that could be facilitated by the Draft 2045 CAP may conflict with Antelope Valley Area Plan Policy LU 6.2, which aims to ensure that the area plan is flexible in adapting to new issues and opportunities without compromising the rural character of the unincorporated Antelope Valley. However, this is balanced by the Antelope Valley Area Plan Policy ED 1.11.

As identified in Antelope Valley Area Plan Policy ED 1.11, development of utility-scale renewable energy projects should be encouraged in appropriate locations and should be developed with appropriate standards to ensure that any negative impacts on local residents are sufficiently mitigated. The REO requires a discretionary permit for utility-scale renewable energy projects that allows for site-specific mitigation to minimize environmental and community impacts. The standards and conditions established by the REO, along with existing processes and

policies, allow the County to regulate utility-scale projects to protect rural communities from incompatible development that conflict with existing land use patterns and service standards.

Additionally, Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary identifies certain measures and actions that could worsen wildfire conditions. These relevant measures and actions include Measure ES2, Standardize All-Electric New Development; Measure T7, Electrify County Fleet Vehicles; and Measure E1, Transition Existing Buildings to All-Electric. The Draft 2045 CAP does not include any specific projects that could directly expose structures or occupants to wildfire risks; however, new projects facilitated by Draft 2045 CAP measures and actions in the future could increase wildfire-related risks when located in fire hazard severity zones (FHSZs), though as explained in the Draft EIR Wildfire section, this impact is less than significant. One potential outcome of the electrification of residential buildings, as encouraged by Measure E1 under Strategy 5, could be the increased use of candles, generators, grills, hibachis, barbeques, fireplaces, charcoal lighters, and chimneys in rural areas subject to power outages.

Infrastructure associated with energy resources, such as transmission lines (unless placed underground consistent with the REO), may pose a potential wildfire ignition source. Therefore, new projects facilitated by Draft 2045 CAP measures and actions could be inconsistent with General Plan Policy C/NR 13.8, which relates to reducing wildfire risk. Although the Draft 2045 CAP may be inconsistent with these specific policies, consistency with plans is determined by considering overall consistency with the plans as a whole, and not with each specific plan policy.

The analysis in Table 3.12-2 shows that the Draft 2045 CAP measures would be consistent with applicable goals and the vast majority of applicable policies of the General Plan as well as other relevant plans and policies (i.e., the OurCounty Sustainability Plan, Antelope Valley Area Plan, and SCAG's 2045 RTP/SCS). Therefore, implementation of the Draft 2045 CAP would not result in significant land use impacts related to conflicts with relevant land use plans and policies. The Draft 2045 CAP is consistent with the following land use plan goals and policies: including General Plan Goals AQ 2 and AQ 3; Policies AQ 3.1, AQ 3.5, AQ 3.7, AQ 3.8, C/NR 8.1, and C/NR 8.2; Housing Element Policies 1.1, 2.2, 3.1, 11.1, 11.3, and 11.4; Policies M 2.4, M 2.6, M 2.8, M 4.3, and M 5.1; Goal PS/F 1; Policies PS/F 1.5, PS/F 1.7, S 4.1, and S 3.1; SCAG's 2045 RTP/SCS Goals 1, 3, 5, 6, 7, 8, 9, and 10; OurCounty Goals 1, 2, 3, 4, 5, 7, 8, 9, 11, and 12; Antelope Valley Area Plan Policy ED 1.11; and Policies LU 1.2, LU 1.3, LU 1.5, and LU 5.3.

**TABLE 3.12-2
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|--|--|--|--|
| Strategy 1: Decarbonize the Energy Supply. | | | |
| Measure ES1: Develop a Sunset Strategy for All Oil and Gas Operations. | Reduce oil and gas operations by 40% below 2015 levels by 2030, 60% by 2035, and 80% by 2045. | <ul style="list-style-type: none"> • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> • Policy AQ 3.8: <u>Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.</u> | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 7: A fossil fuel-free LA County. |
| Measure ES2: Procure Zero-Carbon Electricity. | Participate in the Clean Power Alliance’s Green Power option or Southern California Edison’s Green Rate option: <ul style="list-style-type: none"> • 100% municipal participation by 2025 • 96% community participation by 2030 (approximately 4% opt-out rate) | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG’s 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County. |
| Measure ES3: Increase Renewable Energy Production. | Install rooftop solar PV on all existing single family residential homes and multifamily residential buildings: <ul style="list-style-type: none"> • 20% by 2030 • 25% by 2035 • 35% by 2045 Install rooftop solar PV on all existing commercial buildings: <ul style="list-style-type: none"> • 15% by 2030 • 22% by 2035 • 32% by 2045 Install rooftop solar PV for new multifamily residential buildings: <ul style="list-style-type: none"> • 80% by 2030 • 85% by 2035 • 95% by 2045 | <ul style="list-style-type: none"> • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 1: Encourage regional economic prosperity and global competitiveness. • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG gas emissions and improve air quality. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County. • Antelope Valley Area Plan Policy ED 1.11: Encourage the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated. |

TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|--|---|--|--|
| Strategy 1: Decarbonize the Energy Supply (cont.) | | | |
| Measure ES3 (cont.) | Install rooftop solar PV for new commercial buildings: <ul style="list-style-type: none"> • 40% by 2030 • 50% by 2035 • 70% by 2045 Install 20,000 kW of solar PV at County facilities by 2030. Install rooftop solar PV at all affordable housing developments. | | |
| Measure ES4: Increase Energy Resilience. | <ul style="list-style-type: none"> • Achieve community electricity storage capacity equal to the community-wide 24-hour average usage by 2035/2045. • Achieve community electricity generation capacity equal to the communitywide 24-hour average usage by 2035/2045. • Establish a community resilience hub program to equip community serving County facilities (e.g., libraries, recreation centers, senior centers). • Provide solar and battery systems sufficient to support emergency cooling and other emergency functions. Partner with local community for implementation. • Locate at least one hub in each County district, with focus on vulnerable populations. • Install microgrids based on feasibility study. | <ul style="list-style-type: none"> • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> • Policy AQ 3.8: <u>Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.</u> | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 1: Resilient and healthy community environments where residents thrive in place. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County. |
| Measure ES5: Establish GHG Requirements for New Development. | <ul style="list-style-type: none"> • All new development that does not require a General Plan amendment shall be consistent with the 2045 CAP. • Develop reach codes, ordinances, and conditions of approval as needed. | <ul style="list-style-type: none"> • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 3: Equitable and sustainable land use and development without displacement. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|--|---|--|---|
| Strategy 2: Increase Densities and Diversity of Land Uses Near Transit. | | | |
| <p>Measure T1: Increase Density Near High-Quality Transit Areas.</p> | <ul style="list-style-type: none"> • Achieve a minimum of 20 dwelling units (DUs) per acre (maximum of 30 to 150 DUs per acre) for HQTAs. • Locate a majority of residential and employment centers in unincorporated Los Angeles County within 1 mile of an HQTA • Achieve a 27% increase in DUs within HQTAs. <p>These densities would be achieved through implementation of the Housing Element Update rezoning programs.</p> | <ul style="list-style-type: none"> • Housing Element Policy 1.1: Identify and maintain an adequate inventory of sites to accommodate the County's RHNA. • Housing Element Policy 11.1: Ensure consistency with the OurCounty Sustainability Plan through equitable and sustainable land use policy. • Housing Element Policy 11.3: Support policies and programs that aim to reduce resource consumption, such as solar panel installation, cool roof installation, back-up battery power, and incentivization of housing near transit. • Housing Element Policy 11.4: Prioritize and concentrate new housing developments in areas intended to reduce environmental impacts and with adequate existing and planned infrastructure, such as road networks and water supply, including any areas covered by a County-approved specific plan or area plan that plans for housing, affordable housing, natural resource protection, open space preservation, adequate water supplies, necessary infrastructure, wildfire protection, energy conservation, and other sustainable development features. • Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design, particularly in the first-last mile connections to transit, to encourage transit ridership. • Policy PS/F 1.5: Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development. • Policy S 3.1: Strongly discourage development in the County's Flood Hazard Zones, unless it solely provides a public benefit. • Policy S 4.1: Prohibit new subdivisions in VHFHSZs unless: (1) the new subdivision is generally surrounded by existing or entitled development or is located in an existing approved specific plan or is within the boundaries of a communities facility district adopted by the County prior to January 1, 2022, including any improvement areas and future annexation areas identified in the County resolution approving such district; (2) the County determines there is sufficient secondary egress; and (3) the County determines the adjoining major highways and street networks are sufficient for evacuation as well as safe access for emergency responders under a range of emergency scenarios, as determined by the County. Discourage new subdivisions in all other FHSZs. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • SCAG's 2045 RTP/SCS Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency. |

TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|---|--|--|---|
| Strategy 2: Increase Densities and Diversity of Land Uses Near Transit (cont.) | | | |
| Measure T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use. | By 2030, achieve a job density of 300 jobs per acre for all new projects. For communities with an imbalance of jobs/housing (+/-20%), Community Plans will identify and quantify strategies for bringing below 20%. | <ul style="list-style-type: none"> Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout the unincorporated Los Angeles County to increase housing choices for all economic segments of the population. | <ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options. OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. |
| Strategy 3: Reduce Single-Occupancy Vehicle Trips. | | | |
| Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips. | <ul style="list-style-type: none"> Increase bikeway miles by 300% by 2035. Implement the County Bicycle Master Plan. Complete updates to the County's Pedestrian Action Plan, Bicycle Master Plan, and Active Transportation Plans every <u>five</u> years. | <ul style="list-style-type: none"> Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development. Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible: <ul style="list-style-type: none"> Designs that limit dead-end streets and dead-end sidewalks. Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops. Designs for curb ramps, which are pedestrian friendly and compliant with the Americans with Disabilities Act (ADA). Perpendicular curb ramps at locations where it is feasible. Pedestrian walking speed based on the latest standard for signal timing. Slower speeds would be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.) Approved devices to extend the pedestrian clearance times at signalized intersections. Accessible Pedestrian Signals (APS) at signalized intersections. Pedestrian crossings at signalized intersections without double or triple left or right turn lanes. Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections. Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes. | <ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. SCAG's 2045 RTP/SCS Goal 8: Leverage new transportation technologies and data-driven solutions that result in more-efficient travel. OurCounty Goal 1: Resilient and healthy community environments where residents thrive in place. OurCounty Goal 3: Equitable and sustainable land use and development without displacement. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|--|---|--|---|
| Strategy 3: Reduce Single-Occupancy Vehicle Trips (cont.) | | | |
| Measure T3 (cont.) | | <ul style="list-style-type: none"> - Advance stop lines at signalized intersections. - Pedestrian Hybrid Beacons. - Medians or crossing islands to divide long crossings. - High visibility crosswalks. - Pedestrian signage. - Advanced yield lines for uncontrolled crosswalks. • Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible. • Policy M 2.8: Connect trails and pedestrian and bicycle paths to schools, public transportation, major employment centers, shopping centers, government buildings, residential neighborhoods, and other destinations. | |
| Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation. | <ul style="list-style-type: none"> • By 2030, double transit service hours from 560,000 to 1.12 million. • By 2030, install bus-only lanes and signal prioritization on all major transit thoroughfares. • By 2030, have a minimum of 75% of unincorporated Los Angeles County residents live within one-half mile of a bus or active transportation option. | <ul style="list-style-type: none"> • Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. • Housing Element Policy 2.2: Encourage multi-family residential and mixed-use developments along major commercial and transportation corridors. • Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible. • Policy M 4.3: Maintain transit services within the unincorporated areas that are affordable, timely, cost-effective, and responsive to growth patterns and community input. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 3: Enhance the preservation, security, and resilience of the regional transportation system. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency. |
| Measure T5: Limit and Remove Parking Minimums. | <ul style="list-style-type: none"> • Reduce parking stipulations to reduce parking supply and increase transit use. • Unbundle parking costs to reflect cost of parking. • Implement parking pricing to increase "park-once" behavior. | <ul style="list-style-type: none"> • Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • SCAG's 2045 RTP/SCS Goal 8: Leverage new transportation technologies and data-driven solutions that result in more-efficient travel. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|---|--|--|--|
| Strategy 4: Institutionalize Low-Carbon Transportation. | | | |
| <p>Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales.</p> | <p>Increase the fleetwide percentage of light-duty vehicles in the unincorporated Los Angeles County that are ZEVs to:</p> <ul style="list-style-type: none"> • 30% by 2030 • 50% by 2035 • 90% by 2045 <p>Increase the sales of all new light-duty vehicles in the unincorporated Los Angeles County that are ZEVs to:</p> <ul style="list-style-type: none"> • 68% by 2030 • 100% by 2035 <p>Install the following total number of new public and private shared EVCS (including EVCS at County facilities and properties):</p> <ul style="list-style-type: none"> • 37,000 by 2030 • 74,000 by 2035 • 140,000 by 2045 <p>Install the following total number of new EVCS at County facilities and properties:</p> <ul style="list-style-type: none"> • 5,000 by 2030 • 10,000 by 2035 • 25,000 by 2045 <p>Electric active transportation:</p> <ul style="list-style-type: none"> • Percent of the community truck fleet that use green biomethane and hydrogen <p><i>The performance objectives provided here serve as a general metric and may be refined upon completion of the Zero Emission Vehicle Master Plan.</i></p> | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 1: Encourage regional economic prosperity and global competitiveness. • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG’s 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 7: A fossil fuel-free LA County. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency. • OurCounty Goal 12: A commitment to realize OurCounty sustainability goals through creative, equitable, and coordinated funding and partnerships. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|---|---|--|---|
| Strategy 4: Institutionalize Low-Carbon Transportation (cont.) | | | |
| Measure T7: Electrify County Fleet Vehicles. | Electrify the County bus and shuttle vehicle fleet by 2035. Increase the total amount of light-duty vehicles in the County–owned fleet that are ZEVs to: <ul style="list-style-type: none"> • 35% by 2030 • 60% by 2035 • 100% by 2045 All new light-duty vehicle fleet purchases, with certain exceptions, will be ZEVs. | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG’s 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County. |
| Measure T8: Accelerate Freight Decarbonization. | Increase the fleetwide percentage of medium- and heavy-duty vehicles in the unincorporated Los Angeles County that are ZEVs to: <ul style="list-style-type: none"> • 40% by 2030 • 60% by 2035 90% by 2045 Increase the fleetwide percentage of medium- and heavy-duty vehicles in the County–owned fleet that are ZEVs to: <ul style="list-style-type: none"> • 50% by 2030 • 70% by 2035 • 95% by 2045 Ensure that 100% of the drayage truck fleet is ZEV by 2035. Ensure that 100 percent of sales of medium- and heavy-duty trucks are ZEV by 2045. All new warehouse loading docks must have EVCS by 2030. All existing warehouse loading docks must have EVCS by 2030. | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG’s 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel–free LA County. |

TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|---|--|---|--|
| Strategy 4: Institutionalize Low-Carbon Transportation (cont.) | | | |
| Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment. | Increase the fleetwide percentage of off-road fleet and equipment in the unincorporated Los Angeles County that are ZEVs to: <ul style="list-style-type: none"> • 20% by 2030 • 50% by 2035 • 95% by 2045 Increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in the unincorporated Los Angeles County that are ZEVs to: <ul style="list-style-type: none"> • 50% by 2030 • 75% by 2035 • 100% by 2045 | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • SCAG's 2045 RTP/SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County. • OurCounty Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency. |
| Strategy 5: Decarbonize Buildings. | | | |
| Measure E1: Transition Existing Buildings to All-Electric. | Electrify the existing residential building stock to: <ul style="list-style-type: none"> • 25% by 2030 • 40% by 2035 • 80% by 2045 Electrify the existing nonresidential building stock: <ul style="list-style-type: none"> • 15% by 2030 | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> • Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout unincorporated Los Angeles County to increase housing choices for all economic segments of the population. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. |
| Measure E1 (cont.) | <ul style="list-style-type: none"> • 25% by 2035 • 60% by 2045 Require ZNE for all major renovations: <ul style="list-style-type: none"> • 50% by 2030 • 75% by 2035 • 100% by 2045 Adopt building performance standards and reach code(s). Adopt ZNE ordinance. | | <ul style="list-style-type: none"> • OurCounty Goal 7: A fossil fuel-free LA County. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|---|---|---|---|
| Strategy 5: Decarbonize Buildings (cont.) | | | |
| Measure E2: Standardize All-Electric New Development. | <ul style="list-style-type: none"> • All new buildings will be all-electric beginning in 2025. • All applicable new buildings will be all electric: <ul style="list-style-type: none"> - Residential: 90% all-electric by 2030, 95% by 2035, and 100% by 2045 - Nonresidential: 90% all-electric by 2030 (except large industry and possibly food service) 95% by 2035, and 100% by 2045 • Provide affordable housing set-aside to offset first cost. • Most new residential will be ZNE beginning in 2030 and most new nonresidential will be ZNE beginning in 2030. <ul style="list-style-type: none"> - Residential: 90% ZNE by 2030. - Nonresidential: 90% ZNE by 2030 (except large industry). | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG gas emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> • Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout unincorporated Los Angeles County to increase housing choices for all economic segments of the population. | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel–free LA County. |
| Measure E3: Implement Other Decarbonization Actions. | Increase the proportion of biomethane in the utility natural gas mix to: <ul style="list-style-type: none"> • 20% by 2030 • 30% by 2035 • 80% by 2045 Use low-carbon, carbon-neutral, or negative-carbon concrete for all new construction; identify carbon intensity limit of concrete. Replace high-GWP refrigerants with low-GWP refrigerants: <ul style="list-style-type: none"> • 15% by 2030 • 25% by 2035 • 50% by 2045 | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel–free LA County. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|--|--|--|---|
| Strategy 6: Improve Efficiency of Existing Building Energy Use. | | | |
| Measure E4: Improve Energy Efficiency of Existing Buildings. | Reduce building Energy Use Intensity (kBtu/square foot) below 2015 levels as follows: <ul style="list-style-type: none"> • 20% for residential, 15% for industrial, and 25% for commercial by 2030 • 25% for residential and industrial and 35% for commercial by 2035 • 50% for residential and industrial and 50% for commercial by 2045 Adopt building performance standards and reach code(s). | <ul style="list-style-type: none"> • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and greenhouse gas emission reduction goals. • Policy AQ 3.5: <u>Require the full electrification of new development. Encourage the retrofit of existing development to achieve full electrification.</u> • Housing Element Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout unincorporated Los Angeles County to increase housing choices for all economic segments of the population. | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy. • OurCounty Goal 7: A fossil fuel-free LA County. |
| Strategy 7: Conserve Water. | | | |
| Measure E5: Increase Use of Recycled Water and Gray Water Systems. | Unincorporated Los Angeles County demand met by recycled water, gray water, or potable reuse: <ul style="list-style-type: none"> • 25% by 2025 • 50% by 2030 • 90% by 2045 Water demand for agricultural will be recycled or greywater: <ul style="list-style-type: none"> • 30% by 2030 • 50% by 2035 • 80% by 2045 Water demand for industrial will be recycled or greywater: <ul style="list-style-type: none"> • 30% by 2030 • 50% by 2035 • 80% by 2045 Implement a successful direct potable reuse project by 2025. | <ul style="list-style-type: none"> • Policy AQ 3.8: <u>Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.</u> | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • OurCounty Goal 1: Resilient and healthy community environments where residents thrive in place. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 9: Sustainable production and consumption of resources. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|---|---|---|--|
| Strategy 7: Conserve Water (cont.) | | | |
| Measure E6: Reduce Indoor and Outdoor Water Consumption. | Reduce total water use to less than: <ul style="list-style-type: none"> • 110 GPCD by 2030 • 100 GPCD by 2035 • 85 GPCD by 2045 Reduce outdoor landscaping water use to 10% by 2030, 20% by 2035, and 50% by 2045. Reduce municipal water consumption 10% by 2030, 20% by 2035, and 50% by 2045. | <ul style="list-style-type: none"> • Policy AQ 3.8: <u>Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.</u> • Policy PS/F 1.7: Consider resource preservation in the planning of public facilities. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 6: Support healthy and equitable communities. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 9: Sustainable production and consumption of resources. |
| Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream. | | | |
| Measure W1: Institutionalize Sustainable Waste Systems and Practices. | Increase the total unincorporated Los Angeles County diversion rate to: <ul style="list-style-type: none"> • 85% by 2030 • 90% by 2035 • 95% by 2045 <ul style="list-style-type: none"> • Reduce the disposal of single-use plastics in landfills. • Increase C&D Ordinance to 70% diversion. • Increase percentage of C&D debris reused in new projects (private, public). | <ul style="list-style-type: none"> • Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning. • Goal AQ 3: Implementation of plans and programs to address the impacts of climate change and reduce greenhouse gas emissions through climate action and mitigation. • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. • OurCounty Goal 7: A fossil fuel-free LA County. |
| Measure W2: Increase Organic Waste Diversion. | Maximize organic waste diversion to support the unincorporated Los Angeles County's overall waste diversion rate goals identified in Measure W1. | <ul style="list-style-type: none"> • Goal AQ 3: Implementation of plans and programs to address the impacts of climate change and reduce greenhouse gas emissions through climate action and mitigation. • Policy AQ 3.1: Facilitate the implementation and maintenance of the Climate Action Plan to ensure that the County reaches its climate action and GHG emission reduction goals.. | <ul style="list-style-type: none"> • SCAG's 2045 RTP/SCS Goal 5: Reduce GHG emissions and improve air quality. • OurCounty Goal 2: Buildings and infrastructure that support human health and resilience. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|---|--|---|---|
| Strategy 9: Conserve and Connect Wildlands and Working Lands. | | | |
| Measure A1: Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands. | Reduce the amount of natural land converted for urbanized uses: <ul style="list-style-type: none"> • 25% by 2030 (53 acres conserved annually) • 50% by 2035 (106 acres conserved annually) • 75% by 2045 (159 acres conserved annually) Conserve and restore natural forest land: <ul style="list-style-type: none"> • 2,000 acres by 2030 • 4,000 acres by 2035 • 6,000 acres by 2045 Acres of wildland managed for wildfire risk reduction and carbon stock savings: <ul style="list-style-type: none"> • 10,000 acres by 2030 • 20,000 acres by 2035 • 50,000 acres by 2045 | <ul style="list-style-type: none"> • Policy C/NR 8.1: Protect ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses. • Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, that are incompatible with agricultural activities. • Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas. • Policy LU 6.2: landscape. | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats. • OurCounty Goal 5: Thriving ecosystems, habitats, and biodiversity. • OurCounty Goal 6: Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities. • Antelope Valley Area Plan Policy LU 1.2: Limit the amount of potential development in rural preserve areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map (Map 2.1) of the AVAP. • Antelope Valley Area Plan Policy LU 1.5: Provide varied lands for residential uses sufficient to meet the needs of all segments of the population, and allow for agriculture, equestrian uses and animal-keeping uses in these areas where appropriate. • Antelope Valley Area Plan Policy LU 5.3: Preserve open space areas to provide large contiguous carbon sequestering basins. |
| Strategy 10: Sequester Carbon and Implement Sustainable Agriculture. | | | |
| Measure A2: Support Regenerative Agriculture. | Reduce the quantity of synthetic fertilizers used/applied. Increase the number of acres of cover crops using regenerative agricultural techniques. | <ul style="list-style-type: none"> • Policy C/NR 8.1: Protect ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses. | <ul style="list-style-type: none"> • SCAG’s 2045 RTP/SCS Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats. • OurCounty Goal 5: Thriving ecosystems, habitats, and biodiversity. • Antelope Valley Area Plan Policy LU 1.3: Maintain the majority of the unincorporated Antelope Valley as Rural Land, allowing for agriculture, equestrian and animal-keeping uses, and single-family homes on large lots. |

**TABLE 3.12-2 (CONTINUED)
MATRIX OF DRAFT 2045 CLIMATE ACTION PLAN MEASURES AND CONSISTENCY WITH RELEVANT PLANS**

| Draft 2045 CAP Measures | Performance Objectives | Los Angeles County General Plan Goals and Policies with Which Measure is Consistent* | Other Relevant Plans and Plan Policies with Which Measure is Consistent |
|--|---|---|--|
| Strategy 10: Sequester Carbon and Implement Sustainable Agriculture (cont.) | | | |
| Measure A2 (cont.) | | <ul style="list-style-type: none"> Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, that are incompatible with agricultural activities. | <ul style="list-style-type: none"> Antelope Valley Area Plan Policy LU 1.5: Provide varied lands for residential uses sufficient to meet the needs of all segments of the population, and allow for agriculture, equestrian uses and animal-keeping uses in these areas where appropriate. OurCounty Goal 9: Sustainable production and consumption of resources. |
| Measure A3: Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces. | <p>Total new tree planted:</p> <ul style="list-style-type: none"> 130,000 trees by 2030 200,000 trees by 2035 270,000 trees by 2045 Develop Urban Forest Management Plan <p><i>(The performance objectives provided here serve as a general metric and may be refined upon completion of the Urban Forest Management Plan.)</i></p> | <ul style="list-style-type: none"> Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas. | <ul style="list-style-type: none"> SCAG's 2045 RTP/SCS Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats. OurCounty Goal 5: Thriving ecosystems, habitats, and biodiversity. OurCounty Goal 6: Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities. OurCounty Goal 11: Inclusive, transparent, and accountable governance that facilitates participation in sustainability efforts, especially by disempowered communities. OurCounty Goal 12: A commitment to realize OurCounty sustainability goals through creative, equitable, and coordinated funding and partnerships. |

NOTES:

ARA = Agricultural Resource Area; Unincorporated Los Angeles County = unincorporated areas of Los Angeles County; Draft 2045 CAP = *Los Angeles County Draft 2045 Climate Action Plan*; DU = dwelling unit; General Plan = *Los Angeles County General Plan 2035*; GHG = greenhouse gas; GPCD = gallons per capita per day; HQTAs = High Quality Transit Area; kW = kilowatt; County = Los Angeles County; OurCounty = *OurCounty: Los Angeles Countywide Sustainability Plan*; PV = photovoltaic; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SCAG = Southern California Association of Governments; ZEV = zero-emission vehicle; ZNE = zero net energy

* Climate Action Plan (CAP) measures are consistent with both the existing air quality policies shown in ~~strikeout~~ and the proposed air quality policies shown in underline. Proposed air quality policies will be adopted concurrently with the CAP.

Projects facilitated by the Draft 2045 CAP measures and actions that require a discretionary approval from a state or local agency would be required to conduct their own CEQA analyses. Significance determinations would be based on the individual projects' specifics; the CEQA analyses would analyze the potential for each project to conflict with existing land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental impact. Similar to the Project, projects facilitated by the Draft 2045 CAP would use regional planning documents such as the General Plan and SCAG's 2045 RTP/SCS during planning. To be approved, any future projects facilitated by the Draft 2045 CAP measures and actions, and other future development, would need to be found consistent with the local general plan and the applicable specific plan, area plan, local coastal plan, and community plan or neighborhood plan.

Adoption of the Draft 2045 CAP would not cause a significant environmental impact related to land use because implementing the Draft 2045 CAP, once approved, would further the goals and policies of the above-listed land use plans and policies adopted for the purpose of avoiding or mitigating an environmental impact.

Mitigation: None required.

3.12.2.4 Cumulative Impacts

The geographic context for the evaluation of cumulative impacts on land use and planning is Countywide, inclusive of both unincorporated and incorporated areas. In these areas, a cumulative impact could result from the time a project facilitated by Draft 2045 CAP measures and actions is approved and could continue in perpetuity.

Criterion b)

Impact 3.12-2: Projects facilitated by the Draft 2045 CAP would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. (*Less-than-Significant Cumulative Impact*)

Past, present, and reasonably foreseeable future projects have been proposed, and would be proposed in the future, in addition to projects facilitated by the Draft 2045 CAP measures and actions. These include projects proposed in accordance with General Plan and municipal code requirements (see, e.g., County Planning 2014, 2015a, 2015b, 2022a) and the suite of LA County-adopted specific plans, airport land use plans, area plans, local coastal plans, community plans, and neighborhood plans identified in Section 3.12.1.3, *Regulatory Setting*.

As analyzed in Section 3.12.4.1, *Project Impacts*, the Draft 2045 CAP measures are consistent with the goals and policies of the General Plan, the OurCounty Sustainability Plan, and the regional policies listed in SCAG's 2045 RTP/SCS. Future projects facilitated by the Draft 2045 CAP measures and actions would also be consistent with these plans. Further, to be approved, any future projects facilitated by the Draft 2045 CAP measures and actions, as well as other future development, would need to be found consistent with the local general plan and the applicable specific plan, area plan, local coastal plan, and community plan or neighborhood plan. Thus, cumulative impacts related to the Project's consistency with land use plans and policies would not

be significant, and the Draft 2045 CAP's contribution to any cumulative impacts would not be cumulatively considerable, and therefore less than significant.

Mitigation: None required.

3.13 Noise

This section identifies and evaluates issues related to noise to determine whether the Project would result in a significant impact related to temporary or permanent noise or vibration. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to noise suggest that future renewable energy projects facilitated by the Draft 2045 CAP would cause noise-related impacts in the Los Angeles County's more rural communities and would cause odor impacts.

3.13.1 Setting

3.13.1.1 Study Area

The study area for this analysis of impacts to noise consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.13.1.2 Environmental Setting

Noise and Vibration Basics

Noise Principles and Descriptors

Sound is described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). *Noise* is generally defined as undesirable sound (i.e., one that is loud, unexpected, or annoying). *Acoustics* is defined as the physics of sound and addresses its propagation and control (Caltrans 2013). In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determine the sound level and characteristics of the noise perceived by the receiver.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as *sound level*) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement and reflects the way people perceive changes in sound amplitude.¹ The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120–140 dB corresponding to the threshold of feeling pain. Pressure waves traveling through air exert a force registered by the human ear as sound (Caltrans 2013).

¹ All sound levels are measured in decibels (dB), as identified in the noise calculation worksheets included in Appendix E, *Noise*, and in this section of the Draft EIR, are relative to 2×10^{-5} newtons per square meter.

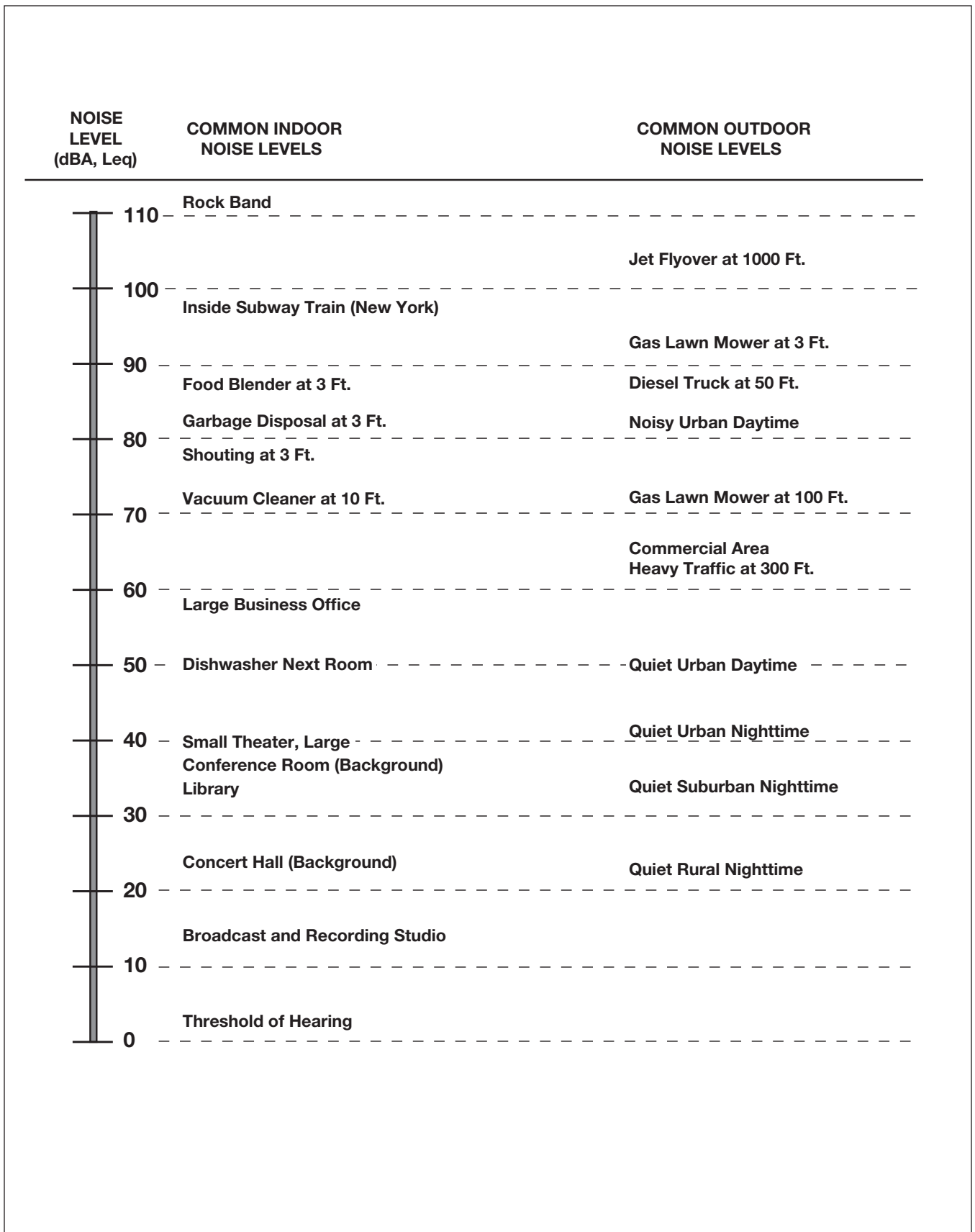
Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. The typical human ear is not equally sensitive to the audible frequency range from 20 to 20,000 Hz. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as *A-weighting*, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements (Caltrans 2013). Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.13-1, Decibel Scale and Common Noise Sources**.

Noise Exposure and Community Noise

Community noise exposure is typically measured over a period of time; a noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with many unidentifiable individual contributors. Single-event noise sources, such as aircraft flyovers and sirens, may cause sudden changes in background noise level (Caltrans 2013). However, generally, background noise levels change gradually throughout the day, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume.

These successive additions of sound to the community noise environment change the community noise level from moment to moment, requiring the noise exposure to be measured over periods of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. The following noise descriptors are used to characterize environmental noise levels over time (Caltrans 2013):

- **L_{eq}**: The equivalent sound level over a specified period of time, typically, 1 hour (L_{eq}). The L_{eq} may also be referred to as the average sound level.
- **L_{max}**: The maximum, instantaneous noise level experienced during a given period of time.
- **L_{min}**: The minimum, instantaneous noise level experienced during a given period of time.
- **L_x**: The noise level exceeded a percentage of a specified time period. For instance, L₅₀ and L₉₀ represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- **L_{dn}**: The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dBA to measured noise levels between the hours of 10:00 p.m. and 7:00 a.m. the next day to account for nighttime noise sensitivity. The L_{dn} is also termed the *day-night average noise level* (DNL).
- **CNEL**: The community noise equivalent level (CNEL), the time average A-weighted noise level during a 24-hour day that includes an addition of 5 dBA to measured noise levels between the hours of 7:00 p.m. and 10:00 p.m. and an addition of 10 dBA to noise levels between the hours of 10:00 p.m. and 7:00 a.m. the next day to account for noise sensitivity in the evening and nighttime, respectively.



SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: [http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf](http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf)

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.13-1
Decibel Scale and Common Noise Sources

Impacts of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that typically is associated with human activity that is a nuisance or disruptive. The impacts of noise on people can be placed into four general categories:

- Subjective impacts (e.g., dissatisfaction, annoyance)
- Interference impacts (e.g., communication, sleep, and learning interference)
- Physiological impacts (e.g., startled response)
- Physical impacts (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological impacts, the principal human responses to typical environmental noise exposure are related to subjective impacts and interference with activities. Interference impacts interrupt daily activities and include interference with human communication activities, such as normal conversations, television watching, telephone conversations, and interference with sleep (Caltrans 2013).

With regard to the subjective impacts, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day, and the type of activity during which the noise occurs, and individual noise sensitivity. With regard to increases in A-weighted noise level, the following relationships generally occur (Caltrans 2013):

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived.
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference.
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference.
- A change in ambient noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

These relationships between change in noise level and human hearing response occur in part because of the logarithmic nature of sound and the dB scale. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion but, rather, logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions (Caltrans 2013).

Noise Attenuation

When noise propagates over a distance, the noise level reduces, or *attenuates*, with distance depending on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as *spherical*

spreading. The rate of sound attenuation for a point source, such as a piece of mechanical or electrical equipment or idling vehicle (e.g., air conditioner or bulldozer), is 6 dBA per doubling of distance from the noise source to the receptor over acoustically “hard” sites (e.g., asphalt and concrete surfaces) and 7.5 dBA per doubling of distance from the noise source to the receptor over acoustically “soft” sites (e.g., soft dirt, grass, or scattered bushes and trees). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water (Caltrans 2013).

Roadways and highways consist of several localized noise sources on a defined path and, hence, are treated as “line” sources, which approximate the impact of several point sources. Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans 2013).

Structures (e.g., buildings and solid walls) and natural topography (e.g., hills and berms) that obstruct the line of sight between a noise source and a receptor further reduce the noise level if the receptor is located within the “shadow” of the obstruction, such as behind a sound wall. This type of sound attenuation is known as *barrier insertion loss*. If a receptor is located behind the wall but still has a view of the source (i.e., the line of sight is not fully blocked), barrier insertion loss would still occur, but to a lesser extent. Additionally, a receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall can reflect noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line of sight between the source and receiver) to an upper range of 20 dBA with a larger barrier (Caltrans 2013: Sections 2.1.4.24 and 5.1.1). Additionally, structures with closed windows can further attenuate exterior noise by a minimum of 20 dBA to 30 dBA (Caltrans 2013: Table 7-1).

Vibration Fundamentals

Vibration can be interpreted as energy transmitted in waves through the ground or man-made structures, which generally dissipate with distance from the vibration source. Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. Because energy is lost during its transfer from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration’s (FTA’s) *Transit Noise and Vibration Impact Assessment Manual*, groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard (FTA 2018). In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources such as rubber-tired buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and certain construction activities, such as blasting, pile driving, and operation of heavy earth-moving equipment (FTA 2018). Groundborne vibration generated by man-made activities (e.g., road traffic, construction operations) typically weakens with greater horizontal distance from the source of the vibration.

Several different methods are used to quantify vibration. The *peak particle velocity* (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec), and is most frequently used to describe vibration impacts on buildings. The *root mean square (RMS) amplitude* is defined as the average of the squared amplitude of the signal and is most frequently used to describe the impact of vibration on the human body. Decibel notation (VdB) is commonly used to express RMS vibration velocity amplitude. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would interfere with operations within the building or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration-sensitive equipment (FTA 2018).

Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Within the unincorporated areas of the County, residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, schools, historic sites, cemeteries, and recreation areas are also generally considered sensitive to increases in exterior noise levels. These sensitive land uses are also considered vibration-sensitive land uses, which also include commercial and industrial buildings where vibration would interfere with operations within the building, including at vibration levels that may be well below those associated with human annoyance.

Existing Noise Sources and Ambient Levels

Existing noise levels vary widely throughout the unincorporated areas of the County depending on the nature, type, and intensity of existing development. Rural and suburban residential areas generally experience lower ambient noise levels, while areas in highly urbanized regions, along high-volume roadways, and near industrial development generally experience higher ambient noise levels. Generally, quiet suburban areas typically have noise levels in the range of 40–50 dBA, as indicated in Figure 3.13-1. For developed areas within a large, metropolitan region, average (L_{eq}) community noise levels are most often in the range of low 60s to low 70s dBA, while maximum (L_{max}) noise levels and the similar intrusive sound levels (L_{10}) can often reach into the mid to upper 80s dBA, depending on the proximity to heavily traveled roadways and/or other, major noise sources (County Planning 2014).

Transportation noise sources within the Los Angeles County include roadways, railroads, and airports. Interstates 5, 10, 105, 110, 210, 215, 405, 605, and 710 and State Routes 1, 2, 14, 22, 23, 39, 47, 60, 90, 91, 103, 110, 118, 134, 138, and 170, which traverse unincorporated areas of the County, are major existing sources of traffic noise. Some County roads, primarily those that serve as collectors and arterials, are also significant sources of traffic noise. Amtrak and Metrolink operate passenger rail lines and BNSF and Union Pacific operate freight rail throughout Los Angeles County. See Section 3.8, *Transportation*, for additional details about these services.

There are several airports in the County, but the main airports in operation are Los Angeles International Airport (LAX) in Los Angeles, Hollywood Burbank Airport in Burbank, and Long

Beach Airport in Long Beach. There are also a number of local/private landing strips. Non-transportation noise sources within Los Angeles County include agriculture, oil and gas production, industrial facilities, and construction.

3.13.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies pertaining to noise would apply to the Draft 2045 CAP.

Federal Transit Administration Vibration Standards

There are no federal vibration standards or regulations adopted by any agency that are applicable to the evaluation of vibration impacts from land use development projects facilitated by the Draft 2045 CAP measures and actions. However, the FTA has developed guidance that includes vibration criteria that may be used in evaluating groundborne vibration and groundborne noise impacts (FTA 2018: Table 7-5). The vibration damage criteria in the FTA *Transit Noise and Vibration Impact Assessment Manual* are shown in **Table 3.13-1, *Vibration Damage Criteria***.

**TABLE 3.13-1
 VIBRATION DAMAGE CRITERIA**

| Building Category | PPV (in/sec) |
|---|---------------------|
| I. Reinforced-concrete, steel, or timber (no plaster) | 0.5 |
| II. Engineered concrete and masonry (no plaster) | 0.3 |
| III. Non-engineered timber and masonry buildings | 0.2 |
| IV. Buildings extremely susceptible to vibration damage | 0.12 |

NOTES: in/sec = inches per second; PPV = peak particle velocity
 SOURCE: FTA 2018.

The FTA *Transit Noise and Vibration Impact Assessment Manual* also includes criteria that may be used for evaluating human annoyance from groundborne vibration and noise for the following three land use categories—Vibration Category 1–High Sensitivity, Vibration Category 2–Residential, and Vibration Category 3–Institutional (FTA 2018: Table 6-1):

- **Vibration Category 1–High Sensitivity:** Buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes.
- **Vibration Category 2–Residential:** All residential land uses and any buildings where people sleep, such as hotels and hospitals.
- **Vibration Category 3–Institutional:** Institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but that still involve activities that could be disturbed by vibration.

The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table 3.13-2**, *Groundborne Vibration and Groundborne Noise Impact Criteria for General Assessment*. No thresholds have been adopted or recommended for commercial, office, or industrial uses.

**TABLE 3.13-2
 GROUNDBORNE VIBRATION AND GROUNDBORNE NOISE CRITERIA FOR GENERAL ASSESSMENT**

| Land Use Category | Frequent Events ^a | Occasional Events ^b | Infrequent Events ^c |
|--|------------------------------|--------------------------------|--------------------------------|
| Category 1: Buildings where vibration would interfere with interior operations. | 65 VdB ^d | 65 VdB ^d | 65 VdB ^d |
| Category 2: Residences and buildings where people normally sleep. | 72 VdB | 75 VdB | 80 VdB |
| Category 3: Institutional land uses with primarily daytime use. | 75 VdB | 78 VdB | 83 VdB |

NOTES:

VdB = vibration decibels

^a "Frequent Events" is defined as more than 70 vibration events of the same source per day.

^b "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

^c "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.

^d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

SOURCE: FTA 2018.

Occupational Safety and Health Act of 1970

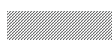



Under the Occupational Safety and Health Act of 1970 (United States Code Title 29, Section 1919 et seq.), the federal Occupational Safety and Health Administration has adopted regulations designed to protect workers against the impacts of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

State Laws, Regulations, and Policies

Governor's Office of Planning and Research Guidelines for Noise Compatible Land Use

The State of California has not adopted statewide standards for environmental noise, but the Governor's Office of Planning and Research (OPR) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as presented in **Figure 3.13-2**, *Guidelines for Noise Compatible Land Use* (OPR 2017).

| Land Use Category | Noise Exposure (L_{dn} or CNEL, dBA) | | | | | |
|--|---|--------|--------|--------|--------|--------|
| | 55 | 60 | 65 | 70 | 75 | 80 |
| Residential – Low Density Single-Family, Duplex, Mobile Home | Normal | Normal | Normal | Normal | Normal | Normal |
| Residential – Multiple Family | Normal | Normal | Normal | Normal | Normal | Normal |
| Transient Lodging – Motel, Hotel | Normal | Normal | Normal | Normal | Normal | Normal |
| School, Library, Church, Hospital, Nursing Home | Normal | Normal | Normal | Normal | Normal | Normal |
| Auditorium, Concert Hall, Amphitheater | Normal | Normal | Normal | Normal | Normal | Normal |
| Sports Arena, Outdoor Spectator Sports | Normal | Normal | Normal | Normal | Normal | Normal |
| Playground, Neighborhood Park | Normal | Normal | Normal | Normal | Normal | Normal |
| Golf Course, Riding Stable, Water Recreation, Cemetery | Normal | Normal | Normal | Normal | Normal | Normal |
| Office Building, Business Commercial and Professional | Normal | Normal | Normal | Normal | Normal | Normal |
| Industrial, Manufacturing, Utilities, Agriculture | Normal | Normal | Normal | Normal | Normal | Normal |

-  **NORMALLY ACCEPTABLE:** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
-  **CONDITIONALLY ACCEPTABLE:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
-  **NORMALLY UNACCEPTABLE:** New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
-  **CLEARLY UNACCEPTABLE:** New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

The purpose of these guidelines is to provide guidance for maintaining acceptable noise levels in a community setting for different land use types. Noise levels are divided into four general categories, which vary in range according to land use type: “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” The County has developed its own compatibility guidelines in Chapter 11 of the General Plan (the Noise Element) based in part on the OPR Guidelines, and the County is relying on these guidelines for purposes of this analysis. The Government Code requires that a noise element be included in the general plan. The noise element must identify and appraise noise problems in the community and analyze and quantify current and projected noise levels.

California Noise Insulation Standards

The State of California also has established noise insulation standards for new multifamily residential units, hotels, and motels, collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. The standards require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

California Department of Transportation Vibration/Groundborne Noise Standards

California has not adopted statewide standards or regulations for evaluating vibration or groundborne noise impacts from land use development projects facilitated by the Draft 2045 CAP measures and actions. However, Caltrans, in its *Transportation and Construction Vibration Guidance Manual*, recommends vibration criteria that may be used for evaluating groundborne vibration impacts (Caltrans 2020). The Caltrans vibration thresholds are shown in **Table 3.13-3, Guideline Vibration Damage Potential Threshold Criteria**.

**TABLE 3.13-3
 GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA**

| Structure and Condition | Maximum PPV (in/sec) | |
|--|--------------------------------|---|
| | Transient Sources ^a | Continuous/Frequent Intermittent Sources ^b |
| Extremely fragile historic buildings, ruins, ancient monuments | 0.12 | 0.08 |
| Fragile buildings | 0.20 | 0.10 |
| Historic and some old buildings | 0.50 | 0.25 |
| Older residential structures | 0.50 | 0.30 |
| New residential structures | 1.00 | 0.50 |
| Modern industrial/commercial buildings | 2.00 | 0.50 |

NOTES:

In/sec = inches per second; PPV = peak particle velocity

^a Transient sources create a single, isolated vibration event, such as blasting or drop balls.

^b Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: Caltrans 2020: Table 19.

Local Laws, Regulations, and Policies

Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan

In Los Angeles County, the Regional Planning Commission has the responsibility for acting as the airport land use commission and for coordinating the airport planning of public agencies within the County. The airport land use commission coordinates planning for the areas surrounding public use airports. The Comprehensive Land Use Plan provides for the orderly expansion of Los Angeles County's public use airports and the area surrounding them. It is intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. In formulating the Comprehensive Land Use Plan, the Los Angeles County Airport Land Use Commission has established provisions for safety, noise insulation, and the regulation of building height within areas adjacent to each of the public airports in Los Angeles County.

Los Angeles General Plan 2035 Noise Element

Chapter 11 of the *Los Angeles County General Plan 2035*, the Noise Element, is a planning tool to develop strategies and action programs that address the multitude of noise sources and issues throughout Los Angeles County. **Table 3.13-4** summarizes the guidelines used by the County. Specific regulations that implement these guidelines are set forth in the Los Angeles County Code, as discussed below.

TABLE 3.13-4
LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE

| Land Use | Community Noise Exposure CNEL, dBA | | | |
|--|------------------------------------|---------------------------------------|------------------------------------|-----------------------------------|
| | Normally Acceptable ^a | Conditionally Acceptable ^b | Normally Unacceptable ^c | Clearly Unacceptable ^d |
| Residential: Low-Density Single-Family, Duplex, Mobile Homes | 50 to 60 | 55 to 70 | 70 to 75 | Above 75 |
| Residential: Multi-Family | 50 to 65 | 60 to 70 | 70 to 75 | Above 75 |
| Transient Lodging: Motels, Hotels | 50 to 65 | 60 to 70 | 70 to 80 | Above 80 |
| Schools, Libraries, Churches, Hospitals, Nursing Homes | 50 to 70 | 60 to 70 | 70 to 80 | Above 80 |
| Auditoriums, Concert Halls, Amphitheaters | — | 50 to 70 | — | Above 65 |
| Sports Arena, Outdoor Spectator Sports | — | 50 to 75 | — | Above 70 |
| Playgrounds, Neighborhood Parks | 50 to 70 | — | 67 to 75 | Above 72 |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | 50 to 75 | — | 70 to 80 | Above 80 |
| Office Buildings, Business and Professional Commercial | 50 to 70 | 67 to 77 | Above 75 | — |
| Industrial, Manufacturing, Utilities, Agriculture | 50 to 75 | 70 to 80 | Above 75 | — |

NOTES: CNEL = community noise equivalent level; dBA = A-weighted decibels

- ^a Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
- ^b Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- ^c Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- ^d Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: OPR 2017

The following policies from the General Plan’s Noise Element are applicable to the Draft 2045 CAP (County Planning 2015):

- Policy N 1.1:*** Utilize land uses to buffer noise-sensitive uses from sources of adverse noise impacts.
- Policy N 1.2:*** Reduce exposure to noise impacts by promoting land use compatibility.
- Policy N 1.3:*** Minimize impacts to noise-sensitive land uses by ensuring adequate site design, acoustical construction, and use of barriers, berms, or additional engineering controls through Best Available Technologies (BAT).
- Policy N 1.4:*** Enhance and promote noise abatement programs in an effort to maintain acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards and other applicable noise standards.
- Policy N 1.5:*** Ensure compliance with the jurisdictions of State Noise Insulation Standards (Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code), such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or L_{dn}) noise exposure contours.
- Policy N 1.6:*** Ensure cumulative impacts related to noise do not exceed health-based safety margins.
- Policy N 1.7:*** Utilize traffic management and noise suppression techniques to minimize noise from traffic and transportation systems.
- Policy N 1.9:*** Require construction of suitable noise attenuation barriers on noise sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.
- Policy N 1.10:*** Orient residential units away from major noise sources (in conjunction with applicable building codes).
- Policy N 1.11:*** Maximize buffer distances and design and orient sensitive receptor structures (hospitals, residential, etc.) to prevent noise and vibration transfer from commercial/light industrial uses.
- Policy N 1.12:*** Decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

Los Angeles County Code

The Los Angeles County Code, Title 12 – Environmental Protection, (Los Angeles County Code Chapter 12.08) identifies exterior noise standards for any source of sound at any location within the unincorporated areas of the county, and specific noise restrictions, exemptions, and variances for exterior noise sources. Several of the ordinance requirements are applicable to aspects of the Project and are discussed below.

Chapter 12.08 provides maximum operational exterior noise level standards for four general noise zones and establishes maximum exterior noise levels for each zone.

For each of these zones, Chapter 12.08 states that exterior operational noise levels caused by Project-related on-site fixed sources (i.e., point noise sources) shall not exceed the levels

identified in **Table 3.13-5**, or the ambient noise level, whichever is greater, when the ambient noise level is determined without the noise source operating.

**TABLE 3.13-5
LOS ANGELES COUNTY EXTERIOR NOISE STANDARDS**

| Noise Zone | Designated Noise Zone Land Use (receptor property) | Time Interval | Exterior Noise Level dBA |
|------------|--|-------------------------------|--------------------------|
| I | Noise-sensitive area: Noise-sensitive zones are designated by the County Health Officer. | Anytime | 45 |
| II | Residential Properties: includes all types of residential developments and properties subject to residential zoning. | 10 p.m. to 7 a.m. (nighttime) | 45 |
| | | 7 a.m. to 10 p.m. (daytime) | 50 |
| III | Commercial Properties: includes all types of commercial developments and also includes properties subject to commercial zoning classifications | 10 p.m. to 7 a.m. (nighttime) | 55 |
| | | 7 a.m. to 10 p.m. (daytime) | 60 |
| IV | Industrial Properties: includes all properties developed with manufacturing uses and industrial zoning. | Anytime | 70 |

NOTE: dBA = A-weighted decibels

SOURCE: Los Angeles County Ordinance No. 11743, Los Angeles County Code Section 12.08.390.

Part 4 of Chapter 12.08 also identifies specific restrictions regarding construction noise. Pursuant to Chapter 12.08, the operation of equipment used in construction, drilling, repair, alteration, or demolition work is prohibited between the hours of 7:00 p.m. and 7:00 a.m., Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial property line (Los Angeles County Code Section 12.08.440). Chapter 12.08 further states that the contractor must conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in **Table 3.13-6**. All mobile and stationary internal combustion-powered equipment and machinery also must be equipped with suitable exhaust and air-intake silencers in proper working order.

**TABLE 3.13-6
LOS ANGELES COUNTY PERMISSIBLE CONSTRUCTION EQUIPMENT NOISE AT RECEPTOR**

| Equipment Type | Receptor Type | Daytime Hours | Nighttime Hours |
|---|-----------------------------|---------------|-----------------|
| Mobile Equipment Short-term operation (less than 10 days) | Single-family Residential | 75 | 60 |
| | Multi-family Residential | 80 | 64 |
| | Semi-residential/Commercial | 85 | 70 |
| | Business Structures | 85 | 85 |
| Stationary Equipment Long-term operation (more than 10 days) | Single-family Residential | 60 | 50 |
| | Multi-family Residential | 65 | 55 |
| | Semi-residential/Commercial | 70 | 60 |

SOURCE: Los Angeles County Code Section 12.08.440.

Section 12.08.350 of Title 12 provides a presumed perception threshold of 0.01 inches per second over the range of 1 to 100 Hertz.

3.13.2 Impact Analysis

3.13.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant noise impact if it would:

- a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- b) Generate excessive groundborne vibration or groundborne noise levels; or
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

The analysis of threshold criterion c) is included in Section 3.10, Hazards and Hazardous Materials (Impact 3.10-5).

3.13.2.2 Methodology

This analysis evaluates the criteria identified in the CEQA Guidelines Appendix G Environmental Checklist and identified by the County to determine whether the Draft 2045 CAP measures and actions would facilitate a substantial temporary or permanent increase in noise or vibration. The evaluation of noise and vibration impacts was based on a review of regulations and determination of their applicability to the Project, and on a review of existing noise and vibration sources, sensitive land uses, and reference noise and vibration levels from the Federal Highway Administration (FHWA) Roadway Construction Noise Model (FHWA 2006) and FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Reference levels are noise and vibration emissions for specific equipment or activity types that are well documented and the usage thereof common practice in the field of acoustics. Impacts related to noise and vibration are analyzed qualitatively and focused on the Draft 2045 CAP's potential to expose people to noise levels in excess of local standards. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

Construction Noise

Because precise descriptions and locations of activities involving the construction of site-specific projects facilitated by the Draft 2045 CAP are not known at this time, predictions of construction noise impacts were based on noise from conventional heavy construction equipment from the FHWA Roadway Construction Noise Model based on maximum sound levels (L_{max}) and average sound levels using default "acoustical usage factors" as presented in Table 1 of the *Roadway*

Construction Noise Model User's Guide (FHWA 2006). The EIR also evaluates the potential for future projects facilitated by Draft 2045 CAP measures and actions to exceed the Los Angeles County Noise Ordinance, per Section 12.08.440 of the Los Angeles County Code, for construction noise with respect to potential projects lasting 10 days or less in total duration, or greater than 10 days in total duration.

Roadway Traffic Noise

Implementation of the Draft 2045 CAP is expected to reduce overall Countywide vehicle trips and vehicle miles traveled (VMT). However, the localized impact on roadway traffic volumes in specific areas may increase or decrease. Because precise descriptions and locations of activities involving a change in roadway traffic volumes for site-specific projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantitatively evaluate traffic noise on specific roadways. Hence, this analysis considers the potential for future projects facilitated by implementation of Draft 2045 CAP measures and actions to contribute to localized roadway traffic volumes. For the purposes of this noise analysis, roadway traffic noise impacts are considered significant when they cause an increase of 3 dBA from existing noise levels, which is a barely perceivable difference outside of a controlled laboratory environment (Caltrans 2013). An increase of 3 dBA would result from an approximate doubling of the traffic volumes on local roadways.

Stationary-Source Noise

Because precise descriptions and locations of projects facilitated by the Draft 2045 CAP are not known at this time, it is not possible to quantitatively evaluate stationary-source noise. Hence, this analysis considers the potential for future projects facilitated by Draft 2045 CAP measures and actions to contribute to stationary-source noise. Stationary sources would not be exempted by Los Angeles County Code Section 12.08.570, and would be subject to the County's exterior noise limits in Part 3, Section 12.08.390, or to the specific noise criteria in Part 4. For the purposes of this noise analysis, stationary-source noise impacts are considered significant when they exceed the specified applicable limits in the Los Angeles County Noise Ordinance.

Groundborne Vibration and Groundborne Noise

While Los Angeles County Noise Ordinance Section 12.08.350 establishes a perception threshold for vibration, the County does have quantified groundborne vibration velocity criteria for establishing significance. As described in Section 3.13.1.3, above, the FTA and Caltrans have developed guidance that includes criteria for evaluating groundborne vibration and groundborne noise impacts. Because precise descriptions and locations of projects facilitated by the Draft 2045 CAP are not known at this time, predictions of groundborne vibration and groundborne noise impacts were based on vibration levels from conventional heavy construction equipment and common stationary equipment in the *FTA Transit Noise and Vibration Impact Assessment Manual* (FTA 2018; Caltrans 2020). For the purposes of this noise analysis, groundborne vibration and groundborne noise impacts are considered significant when they exceed the specified applicable limits in the *FTA Transit Noise and Vibration Impact Assessment Manual* and *Caltrans Transportation and Construction Vibration Guidance Manual*.

3.13.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas (GHG) emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of noise-related impacts. These and other relevant measures and actions include: Measure T1: Increase Density Near High-Quality Transit Areas and Measure T2: Develop Land Use Plans Addressing Jobs/Housing Balance & Increase Mixed Use. These measures could encourage the densification of residential uses near transit and an increase in mixed-use that includes residences and, as such, bring noise-sensitive uses such as homes in closer proximity to sources of noise. Further, measures and actions associated with Strategy 1, *Decarbonize the Energy Supply*; Measure ES2, *Procure Zero-Carbon Electricity*; Measure ES3, *Increase Renewable Energy Production*; Strategy 4, *Institutionalize Low-Carbon Transportation*; Measure T6, *Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales*, Measure T8, *Accelerate Freight Decarbonization*, and Measure T9, *Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment*, each regarding the electrification of vehicles; and Strategy 5, *Decarbonize Buildings*, regarding the electrification of buildings, could facilitate renewable energy generation and infrastructure projects, the development of which could cause noise.

The timeframe during which the implementation of these actions and measures would cause impacts related to noise would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation causes an increase in noise or groundborne vibration above ambient levels for one or more of the specified reasons. If an impact occurs, it would occur immediately and could be short term (e.g., construction-related noise) or continue in effect for the long term (e.g., infrastructure projects). Impacts of projects facilitated by the Draft 2045 CAP that result in excessive noise or vibration for people residing or working in the project area would begin upon initiation of the condition, last for as long as the noise or vibration source remains, and conclude when the noise source is removed. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific noise impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact 3.13-1: Projects facilitated by the Draft 2045 CAP could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable*)

Construction

The Draft 2045 CAP is a policy-level document that does not include any site-specific designs or proposals; however, GHG emissions reduction measures that would be implemented with the Draft 2045 CAP would result in short-term construction activities for future projects facilitated by Draft 2045 CAP measures and actions within the unincorporated areas of the County. Construction activities would use heavy equipment such as excavators, graders, scrapers,

bulldozers, backhoes, pile drivers, jackhammers, and concrete mixing trucks, and would result in temporary activities that generate noise. Depending on the type and model of equipment used for construction, typical noise levels for heavy construction equipment range from approximately 80 to 95 dBA L_{max} at a distance of 50 feet from the equipment (FHWA 2006). Actual exposure levels would depend on the number and types of equipment, the intensity of the construction activity, the distance of sensitive receptors to the noise source, and any intervening structures, topography, and noise absorption characteristics of the ground that might affect noise attenuation.

Several Draft 2045 CAP measures would facilitate the construction of new facilities or retrofits to existing buildings to improve energy efficiency and increase renewable energy use, increase solid waste diversion, increase recycled and grey water use, and improve water efficiency. The Draft 2045 CAP also promotes mixed-use and transit-oriented development in city centers, consistent with existing land use plans. Furthermore, several Draft 2045 CAP measures promote minor changes to the existing streetscape, such as traffic-calming improvements and additional transit, pedestrian, and bicycle facilities to promote increased transit accessibility. Measures that would result in construction activities that would require heavy equipment and cause an increase in temporary noise levels in the vicinity of future project sites include expansion of bicycle and pedestrian networks, building electrification for existing buildings, new renewable energy facilities, expansion of energy storage, building retrofits for energy efficiency, new or expanded water treatment facilities, new or expanded waste processing facilities, and demolition of impervious surfaces and planting trees. The size, intensity, and locations of the future projects would dictate whether the level of noise during construction would be above or below the significance thresholds. New facilities may occur as large construction projects, but there is also the potential that the multiple small-scale projects facilitated by the Draft 2045 CAP would occur near each other and at the same time.

Any future projects developed within Los Angeles County facilitated by Draft 2045 CAP measures and actions would be required to comply with the Los Angeles County Noise Ordinance, including Los Angeles County Code Section 12.08.440, which sets allowable construction hours and daytime and nighttime noise limits. In addition, any future project would be required to conduct its own applicable CEQA analysis, which would determine significance based on each individual project's specific circumstances. Even with mandatory compliance with the Los Angeles County Noise Ordinance, it is possible that some future projects facilitated by implementation of the Draft 2045 CAP would be large in scale and/or intensity, such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, or located near noise-sensitive receptors such that many pieces of heavy-duty construction equipment and/or heavy-duty trucks may be required and that construction-period noise levels would exceed the significance threshold. Therefore, construction activities for future projects facilitated by the Draft 2045 CAP could result in significant construction noise levels in excess of standards and result in a significant impact.

Operation

Roadway Traffic Noise

Several Draft 2045 CAP measures promote additional transit facilities and operations as well as pedestrian and bicycle facilities to reduce vehicle fuel use by encouraging a shift in the mode of

transportation that people use. These measures include expanding bicycle and pedestrian networks, encouraging transit and alternative transportation, and increasing waste diversion from landfills. Such additional transit facilities and pedestrian and bicycle facilities and increased waste diversion from landfills facilitated by the Draft 2045 CAP would reduce regional Countywide vehicle trips and VMT. Furthermore, such future projects would be subject to compliance with local land use and noise compatibility standards. Any projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with Los Angeles County Code Section 12.08.390, which establishes exterior noise standards by land use. Thus, impacts related to substantial increases in ambient noise levels from these measures would be less than significant.

The Draft 2045 CAP also includes measures that promote mixed-use and transit-oriented development in city centers, consistent with existing land use plans. While implementation of the Draft 2045 CAP measures would reduce overall Countywide vehicle trips and VMT, the reduction would not necessarily occur evenly throughout the unincorporated areas of the County. The Draft 2045 CAP would include measures aimed at encouraging increasing residential density, particularly near transit, which could lead to an increase in local vehicle trips in areas that experience densification while still reducing regional Countywide vehicle trips. However, the Draft 2045 CAP itself does not propose changes to the General Plan's land use or zoning code designations for any parcels in the unincorporated areas of the County. Therefore, implementation of the Draft 2045 CAP relies on already-adopted General Plan land use and zoning code designations to achieve densification and associated reductions in regional Countywide vehicle trips and VMT.

In other words, local increases in density could occur with or without adoption of the Draft 2045 CAP based on the existing General Plan land use and zoning code designations. Thus, while future projects facilitating the Draft 2045 CAP measures and actions may increase the likelihood that densities would be proposed at their highest allowed levels, adoption of the Draft 2045 CAP itself would not increase traffic volumes on local roadways from local increases in density beyond what was previously analyzed based on the existing General Plan land use and zoning code designations. Therefore, adoption of the Draft 2045 CAP would not result in a 3 dBA increase in roadway noise levels, and impacts would be less than significant.

Stationary-Source Noise

Several Draft 2045 CAP measures would promote the construction of new facilities or retrofits to existing buildings to improve energy efficiency and increase renewable energy use, increase solid waste diversion, and increase recycled water treatment and use. Similarly, Draft 2045 CAP measures and actions related to decarbonization of the energy supply, vehicles, and buildings also would facilitate renewable energy and related transmission infrastructure. Further, Draft 2045 CAP measures and actions regarding compost and mulch (i.e., Measure W2, *Increase Organic Waste Diversion*, and associated Action W2.3, Measure A2, *Support Regenerative Agriculture*, and associated Action A2.2) would facilitate the development of materials processing facilities. These new facilities would be constructed within or on existing buildings or new development (e.g., rooftops, wastewater treatment plants, landfills) or on open land in more rural parts of the unincorporated County.

The Draft 2045 CAP measures that could reduce stationary-source noise include the sunseting of oil and gas operations and expansion of the County’s tree canopy and green spaces, which would provide for greater noise absorption from vegetation. Some Draft 2045 CAP measures could facilitate future projects with new stationary sources of noise, such as from new renewable energy facilities, expansion of energy storage, new or expanded water treatment facilities, and new or expanded waste processing facilities. The types of equipment and locations of these future projects would dictate whether the level of stationary-source noise during operations would be above or below the significance thresholds. Facilities may be constructed at existing facilities, but there is also the potential that the new facilities, such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, may be built near noise-sensitive receptors.

Even with mandatory compliance with the Los Angeles County Noise Ordinance and General Plan Noise Element Policy N-1.3, it is possible that some future projects associated with implementation of Draft 2045 CAP measures and actions would be large enough in scale and/or intensity, or located near noise-sensitive receptors, such that stationary-source noise levels would exceed the significance threshold. Therefore, stationary noise associated with future projects facilitated by Draft 2045 CAP measures and actions could result in significant operational noise levels in excess of standards.

Below is a list of mitigation measures for future projects with noise levels exceeding the applicable significance thresholds, designed to reduce construction-related and stationary-source noise. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.13-1: Construction Noise. Construction activities associated with new projects facilitated by the Draft 2045 CAP that occur within 500 feet of noise-sensitive receptors (i.e., residences, parks, schools, historic sites, cemeteries, and recreation areas) shall be evaluated by the project applicant for noise impacts that would result in a 5 dBA increase over existing ambient noise levels at any sensitive receptor. Mitigation measures such as installing temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures; equipping construction equipment with more effective mufflers, sound-insulating hoods or enclosures, vibration dampers, and other Best Available Control Technology (BACT); and reducing non-essential idling of construction equipment to no more than five minutes shall be incorporated into construction activities to reduce construction-related noise.

Mitigation Measure 3.13-2: Stationary-Source Noise. For any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) exposed to project stationary-source noise levels in excess of applicable standards in the Los Angeles County Noise Ordinance, the project applicant shall submit an acoustic analysis prior to project approval. The acoustic analysis shall identify site design features (e.g., setbacks, berms, parapets, equipment enclosures, equipment mufflers, sound walls, or other similar noise control device or noise barrier) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the County’s Noise Compatibility Criteria, the California Building Code, and the California Noise Insulation Standards (Title 24 of the California Code of Regulations).

Significance after Mitigation: Significant and Unavoidable. Mitigation Measure 3.13-1 would reduce impacts associated with construction activities. However, because of the potential for construction activities to occur near sensitive uses, and because of the potential intensity of construction activities, it may not be feasible to reduce the impact to a less-than-significant level, and the impact would remain significant and unavoidable. Mitigation Measure 3.13-2 would reduce impacts associated with stationary-source noise, but because exterior noise levels may still exceed the County's noise land use compatibility criteria despite exterior noise attenuation (i.e., noise controls, sound walls, and/or berms), the impact would remain significant and unavoidable. No additional feasible mitigation measures have been identified to further reduce Project-specific incremental contributions to significant noise impacts. Residential land uses comprise the majority of existing sensitive uses in Los Angeles County that would be affected by the increase in Project-generated noise. Construction of sound barriers would be inappropriate to reduce traffic noise impacts for residential land uses that face the roadway because such a measure would create aesthetic and access concerns. Furthermore, for individual development projects, the cost to mitigate off-site noise impacts on existing uses (for example, by implementing noise controls such as sound walls, berms, or the replacement of existing single-paned windows) often is out of proportion with the level of impact.

Criterion b) Whether the Project would generate excessive groundborne vibration or groundborne noise levels.

Impact 3.13-2: Projects facilitated by the Draft 2045 CAP could generate excessive groundborne vibration or groundborne noise levels. (Significant and Unavoidable)

Construction

As discussed above, some of the future projects facilitated by implementation of the Draft 2045 CAP would be constructed within or on existing buildings or new development (e.g., rooftops, wastewater treatment plants, landfills), while others, such as composting or mulch facilities or utility-scale renewable energy projects (e.g., solar photovoltaic generation, battery storage, substation, transmission infrastructure) may be constructed on undeveloped parcels in more rural environments. Measures that would be implemented with the Draft 2045 CAP would result in short-term construction activities within the unincorporated areas of the County. The Draft 2045 CAP is a policy-level document that does not include any site-specific designs or proposals. Although construction details of any future projects are unknown, construction of new projects facilitated by implementation of the Draft 2045 CAP would likely require the use of impact tools that typically are associated with substantial vibrational impacts, such as pile drivers, jackhammers, impact hammers, and earth compaction tools.

The operation of heavy-duty construction equipment would generate localized groundborne vibration and groundborne noise in the vicinity of the construction activity. Measures that would result in construction activities that would require heavy equipment and generate groundborne vibration and groundborne noise include expansion of bicycle and pedestrian networks, building electrification for existing buildings, new renewable energy facilities, expansion of energy storage, building retrofits for energy efficiency, new or expanded water treatment facilities, new or expanded waste processing facilities, and demolition of impervious surfaces and planting trees.

Depending on the proximity of the new facilities to vibration-sensitive receptors, construction activities could generate excessive ground vibration and disturb nearby receptors or damage surrounding existing structures. Construction-generated groundborne vibration may exceed the criteria for structural damage at structures near future projects, and this would result in a significant impact. The size, intensity, and locations of the future projects would dictate whether the level of groundborne vibration and groundborne noise during construction would be above or below the significance thresholds. New facilities may occur as large construction projects, but there is also the potential that the multiple small-scale projects would occur near each other and at the same time.

Any future project facilitated by the Draft 2045 CAP would be required to conduct its own applicable CEQA analysis and would determine significance based on the individual project's specifics. It is possible that some future projects facilitated by the Draft 2045 CAP would be large enough in scale and/or intensity, or located near vibration-sensitive receptors, such that multiple pieces of equipment or other sources of groundborne vibration and/or groundborne noise would cause levels to exceed the specified limits in the FTA *Transit Noise and Vibration Impact Assessment Manual* and Caltrans *Transportation and Construction Vibration Guidance Manual*. Therefore, construction activities for future projects facilitated by the Draft 2045 CAP could result in significant construction groundborne vibration and groundborne noise levels in excess of standards and result in a significant impact.

Operation

Caltrans has studied the impacts of propagation of vehicle vibration on sensitive land uses and notes that “heavy trucks, and quite frequently buses, generate the highest earthborne vibrations of normal traffic” (Caltrans 2013). Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that “vibrations measured on freeway shoulders (5 m [meters] from the centerline of the nearest lane) have never exceeded 2 mm/s [millimeters per second], with the worst combinations of heavy trucks” (Caltrans 2013). “This amplitude coincides with the maximum recommended ‘safe level’ for ruins and ancient monuments (and historic buildings)” (Caltrans 2013). A vibration level of 2 millimeters per second is approximately 0.08 in/sec. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Vehicles traveling along freeways and state routes would cause infrequent and inconsistent vibration events that would attenuate quickly after onset. Sensitive receptors would likely be located further away than 15 meters from a freeway or highway and would therefore experience levels lower than 0.08 in/sec. Further, the FTA guidelines state that buildings that are extremely susceptible to building damage (e.g., historic buildings) could experience structural damage at 0.12 in/sec and Caltrans defines its threshold for extremely fragile buildings at 0.08 in/sec from continuous or frequent intermittent sources (FTA 2018; Caltrans 2020). Thus, roadway traffic is not expected to generate excessive vibration in excess of the FTA's threshold of 0.12 in/sec or Caltrans' threshold of 0.08 in/sec for extremely susceptible buildings and associated impacts would be less than significant.

According to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), stationary equipment such as pumps and compressors generate groundborne vibration levels of 0.5 in/sec PPV at 1 foot (ASHRAE 1999). At 25 feet, this vibration level drops

to approximately 0.004 in/sec PPV at 25 feet (approximately 60 VdB). Furthermore, any future project that includes stationary equipment would locate such equipment on building rooftops or within or near buildings such that the equipment would not generate groundborne vibration off the project site. Therefore, groundborne vibration from the operation of such mechanical equipment is not expected to generate excessive vibration; associated impacts would be less than significant.

The following mitigation measure would reduce construction vibration impacts. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.13-3: Construction Vibration. Individual projects that use vibration-intensive construction equipment, such as pile drivers, jackhammers, and vibratory rollers near vibration-sensitive receptors shall be evaluated by the applicant for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses (i.e., exceed the County’s standard of 0.01 inches per second (in/sec) vibration velocity [within the range of 1 to 100 Hz frequency]), additional requirements shall be implemented during construction, such as the use of less-vibration-intensive equipment or vibration-reduction construction techniques or strategies (e.g., drilled piles to eliminate the use of a vibration-intensive pile driver, increased setback distances).

Significance after Mitigation: Significant and Unavoidable. Mitigation Measure 3.13-3 would reduce vibration impacts associated with construction activities. However, because of the potential for construction activities to occur near sensitive uses, and because of the potential intensity of construction activities, it may not be feasible to reduce the impact to a less-than-significant level, and the impact would be significant and unavoidable. No additional mitigation measures are feasible.

3.13.2.4 Cumulative Impacts

Criterion a)

Impact 3.13-3: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact related to the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable Cumulative Impact*)

The geographic context for the analysis of cumulative noise impacts is Countywide, including the sites of future development facilitated by Draft 2045 CAP measures and actions in the unincorporated areas of the County. More specifically, the geographic context for the evaluation of cumulative construction noise impacts and stationary-source operational noise impacts is generally very small (i.e., a few hundred feet). Noise diminishes rapidly with distance: 6 dBA per doubling of distance for point and stationary sources over acoustically “hard” sites such as asphalt and concrete surfaces, and 7.5 dBA per doubling of distance over acoustically “soft” sites such as soft dirt, grass or scattered bushes and trees. For cumulative operational noise impacts from traffic, the geographic context is generally larger; thus, overall growth in Los Angeles County is considered when assessing potential cumulative impacts. Cumulative impacts could result at various locations within this area from initiation of on-the-ground work in furtherance of a project facilitated by the Draft 2045 CAP measures and actions and could last in perpetuity.

Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, for example, County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect the noise environment in locations that could be affected by the construction and operation of projects facilitated by Draft 2045 CAP measures and actions. Portions of Los Angeles County are noisier, and others quieter, under baseline conditions. If the combination of the incremental noise impacts of the Project and the incremental impacts of cumulative projects would not exceed established thresholds, then no significant cumulative impact would exist. However, the Project's incremental significant impact could cause a significant cumulative impact to occur if multiple projects facilitated by the Draft 2045 CAP were to generate noise in sufficient geographic proximity to one another and one or more noise-sensitive receptors. For example, past, present, or reasonably foreseeable future projects built near a project facilitated by the Draft 2045 CAP could contribute traffic noise levels that, when combined with the incremental increase of the Draft 2045 CAP-facilitated project, could result in a doubling of traffic volumes and result in noise levels greater than the 3 dBA threshold, and thus, a significant cumulative impact. Similarly, if incremental noise impacts of the Project were to combine with the incremental impacts of cumulative projects so as to exceed established thresholds, then a significant cumulative impact also would occur.

Projects in the unincorporated areas would be subject to applicable noise standards and would be required to comply with the Los Angeles County Noise Ordinance, including Los Angeles County Code Section 12.08.440, which sets allowable construction hours and daytime and nighttime noise limits. In addition, future projects facilitated by the Draft 2045 CAP that require a discretionary approval from a state or local agency would be required to conduct its own CEQA analysis to determine the significance of that individual project's change in the noise environment. Even with mandatory compliance with the Los Angeles County Noise Ordinance, it is possible that noise from projects facilitated by the Draft 2045 CAP combined with noise from nearby projects would be loud enough to result in a cumulatively considerable contribution to a significant cumulative impact. If so, then the Project would have a significant cumulative impact.

Mitigation: Implement Mitigation Measure 3.13-1 and Mitigation Measure 3.13-2.

Significance after Mitigation: While Mitigation Measure 3.13-1 and Mitigation Measure 3.13-2 would reduce the Project-specific incremental contribution, it may not be feasible to reduce the cumulative impact to a less-than-significant level. Thus, post-mitigation cumulative noise impacts would be significant and unavoidable. No additional feasible mitigation measures have been identified to further reduce Project-specific incremental contributions to significant cumulative noise impacts. For residential land uses, which comprise the majority of existing sensitive uses in Los Angeles County that would be affected by the increase in Project-generated noise, construction of sound barriers would be inappropriate to reduce traffic noise impacts because such barriers would create aesthetic and access concerns. For other individual development projects, the cost to mitigate off-site noise impacts on existing uses often is out of proportion with the level of impact.

Criterion b)

Impact 3.13-4: Projects facilitated by the Draft 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact relating to the generation of excessive groundborne vibration or groundborne noise levels from construction activities. (Significant and Unavoidable Cumulative Impact)

Vibration attenuates rapidly from the source. For example, vibration levels of 2 mm/s (i.e., approximately 0.08 in/sec) represent a worst-case scenario for vibration propagated by vehicles (Caltrans 2013) and, according to ASHRAE, stationary equipment such as pumps and compressors generate groundborne vibration levels of 0.5 in/sec PPV at 1 foot (ASHRAE 1999). At 25 feet, this vibration level drops to approximately 0.004 in/sec PPV at 25 feet (approximately 60 VdB). Therefore, to cause or contribute to a significant cumulative vibration impact, sources of vibration would have to be generating vibration at the same time sufficiently close to a vibration-sensitive receptor.

Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements (see, e.g., County Planning 2014, 2015; Los Angeles County 2021), have affected and can be expected to continue to affect vibration levels in Los Angeles County, including its unincorporated areas. Construction and operation of projects facilitated by Draft 2045 CAP measures and actions, including Measure T7: Electrify County Fleet Vehicles, could combine with the incremental vibration impacts of other cumulative projects, which may include truck and bus routes; projects near active railroad tracks (within 200 feet, according to the FTA's vibration screening distances); projects that use construction vehicles or heavy-duty construction equipment typically associated with substantial vibrational impacts (such as pile drivers, jackhammers, impact hammers, and earth compaction tools), or could cause or contribute to a significant impact related to localized groundborne vibration and/or groundborne noise, and thus, disturb nearby receptors or cause structural damage. A significant cumulative impact would result.

Even with the implementation of Mitigation Measure 3.13-3, the Project would cause a significant vibration impact that would be cumulatively considerable when taken into consideration with the cumulative projects' incremental impacts over the span of the Draft 2045 CAP. Additional mitigation measures could further reduce the Project-specific increment.

Mitigation: Implement Mitigation Measure 3.13-3.

Mitigation Measure 3.13-4: New Development Near Railroad Tracks. New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 in/sec RMS for residential uses.

Significance after Mitigation: Although Mitigation Measure 3.13-3 and Mitigation Measure 3.13-4 would reduce the Project-specific incremental contribution to significant cumulative vibration impacts, it may not be feasible to reduce the cumulative impact to a

less-than-significant level. Thus, post-mitigation cumulative vibration impacts as a result of projects facilitated by the Draft 2045 CAP would be significant and unavoidable. No additional mitigation measures are feasible.

3.14 Population and Housing

This section identifies and evaluates issues related to population and housing to determine whether the Draft 2045 CAP would result in a significant impact due to inducement of substantial unplanned population growth in the unincorporated area or the displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to population and housing request consideration of evidence of exodus from more urbanized areas in favor of more suburban environments and evolving housing and lifestyle preferences and analysis of the impacts that would result from the densification of housing in and near wilderness areas including the Angeles National Forest, which is served by a Metrolink station.

3.14.1 Setting

3.14.1.1 Study Area

The study area for this analysis of impacts to population and housing consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of the County. See **Figure 2-1, *Map of Unincorporated Los Angeles County***, in Chapter 2, *Project Description*.

3.14.1.2 Environmental Setting

This section describes the existing and projected population, housing, and employment trends present in the unincorporated areas of the County. This information has been drawn and modified from the *Los Angeles County General Plan 2035* and the *General Plan Update Draft Environmental Impact Report* for the County's General Plan Update (Los Angeles County 2015a, 2014).

Population

According to the *General Plan Update Draft Environmental Impact Report*, which used data provided by the County of Los Angeles, the unincorporated areas of Los Angeles County had a population of 1,066,415 people in 2013. This was 10.9 percent of Los Angeles County's total population at the time. According to Southern California Association of Governments (SCAG) population projection, by 2035, unincorporated areas of Los Angeles County will have a population of 1,399,500 which represents a 31.2 percent change from 2013 through 2035 (SCAG 2020).

Housing

According to the General Plan Draft EIR, which used data provided by the California Department of Finance (DOF), as of 2013, the unincorporated areas of the County had approximately 300,478 housing units. This was about 8.7 percent of Los Angeles County's total housing units. According to the DOF, of these 300,478 housing units in the unincorporated areas, 71 percent were single-family detached homes, 5.9 percent were single-family attached, 19.7 percent were multifamily homes and 3.4 percent were mobile homes. According to SCAG housing projections, the unincorporated areas of the County will have 405,500 housing units by 2035, which represents an increase of 35 percent since 2013 (SCAG 2020). Los Angeles County as a whole is estimated to have 3,852,000 housing units by 2035 which is a 11.2 percent change since 2013.

Employment

According to the General Plan Draft EIR, which used data provided by the California Employment Development Department, as of 2013, the unincorporated areas of the County had 252,660 jobs (Los Angeles County 2014). This is about 5.6 percent of Los Angeles County's total employment of 4,506,400 jobs. According to SCAG employment projections, by 2035, Los Angeles County is expected to have 4,827,000 jobs (SCAG 2020). It is estimated that 6.6 percent or 318,100 jobs will be located within the unincorporated areas of the County.

Jobs-Housing Balance

A jobs-housing balance allows for people's jobs and housing to be within close proximity to each other. This helps shorten commute times and ensures that housing and employment needs are a priority. A 1:1 ratio means that there is one job for every housing unit. When the ratio is unbalanced, people are required to seek housing or employment outside of the area they live. The ratio is calculated by dividing the number of jobs by the number of housing units in a community. If there are less jobs than housing units the jobs to housing ratio would be low, requiring residents to look for work outside of where they live. Areas with more jobs than housing are usually considered major employment hubs with large portions of the workforce commuting in from the surrounding areas. See **Table 3.14-1, Population, Employment, and Housing Projections**.

3.14.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies related to population and housing apply to the Project.

State Laws, Regulations, and Policies

Government Code Section 65580 et seq.

State requirements mandate that housing be included as an element of each jurisdiction's general plan. The County approved the 2021-2029 Housing Element on May 17, 2022 (LA County 2021b) and certified by the California Department of Housing and Community Development on May 27, 2022.

**TABLE 3.14-1
 POPULATION, EMPLOYMENT, AND HOUSING PROJECTIONS**

| Planning Area | 2013 | | | | General Plan Buildout (Post 2035) | | | |
|-------------------------|----------------|-------------------|-------------------|---------------------------|-----------------------------------|------------------|----------------|--------------------|
| | Units (2013) | Population (2013) | Employment (2013) | Jobs/Housing Ratio (2013) | Units | Population | Employment | Jobs/Housing Ratio |
| Antelope Valley | 24,739 | 93,490 | 31,838 | 1.29 | 278,158 | 1,070,571 | 51,219 | 0.18 |
| Coastal Islands | 44 | 158 | 870 | 19.77 | 21 | 0 | 570 | 27.14 |
| East San Gabriel Valley | 63,825 | 239,218 | 29,205 | 0.46 | 70,097 | 255,952 | 53,231 | 0.76 |
| Gateway | 28,743 | 104,061 | 30,328 | 1.06 | 34,446 | 120,358 | 36,820 | 1.07 |
| Metro | 73,068 | 235,990 | 59,359 | 0.81 | 92,158 | 301,073 | 100,906 | 1.09 |
| San Fernando Valley | 9,039 | 32,488 | 20,314 | 2.25 | 13,464 | 47,060 | 24,741 | 1.84 |
| Santa Clarita Valley | 28,501 | 104,116 | 21,470 | 0.75 | 77,155 | 237,638 | 105,881 | 1.37 |
| Santa Monica Mountains | 5,703 | 21,757 | 14,326 | 2.51 | 6,788 | 26,128 | 28,707 | 4.23 |
| South Bay | 19,952 | 69,474 | 17,984 | 0.90 | 25,929 | 86,392 | 24,530 | 0.94 |
| West San Gabriel Valley | 34,765 | 125,736 | 12,713 | 0.36 | 43,877 | 156,685 | 26,539 | 0.60 |
| Westside | 12,099 | 39,926 | 14,252 | 1.18 | 17,316 | 55,033 | 14,592 | 0.84 |
| Total | 300,478 | 1,066,414 | 252,659 | 0.84 | 659,409 | 2,356,890 | 467,736 | 0.71 |

SOURCE: County of Los Angeles 2014.

Regional and Local Laws, Regulations, and Policies

Southern California Association of Governments

SCAG is the designated regional planning agency for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. SCAG is a joint powers agency with responsibilities pertaining to regional issues. SCAG’s mandated responsibilities include developing plans and policies with respect to the region’s population growth, transportation programs, air quality, housing, land use, sustainability, and economic development.

Regional Transportation Plan/Sustainable Communities Strategy

Senate Bill 375 requires each Metropolitan Planning Organization to prepare a sustainable communities strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light-duty trucks. For the SCAG region, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)—also called Connect SoCal—was adopted on September 3, 2020, and, as an update to the prior 2016-2040 RTP/SCS.

The 2020-2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. The 2020-2045 RTP/SCS includes “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

Regional Housing Needs Allocation

As part of Connect SoCal, the 2020-2045 RTP/SCS, SCAG assigns a number of housing units that the County is required to plan for in the 8-year Housing Element cycle. That number of units is called the Regional Housing Needs Allocation (RHNA). The RHNA identifies the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. The Government Code requires counties and cities to: (1) zone adequate lands to accommodate its RHNA; (2) produce an inventory of sites that can accommodate its share of the RHNA; (3) identify governmental and nongovernmental constraints to residential development; (4) develop strategies and a work plan to mitigate or eliminate those constraints; and (5) adopt a housing element and update it on a regular basis.

Los Angeles County General Plan 2035

A general plan is a long-range planning document that, alongside the zoning code, governs development in a city or county. The state requires each city and county to adopt a general plan containing seven mandatory elements: land use, open space, circulation, housing, noise, conservation, and safety, along with any number of optional elements as appropriate. The County's General Plan 2035, which was adopted on October 6, 2015, provides a policy framework for how and where the unincorporated areas would grow through the year 2035. This plan also establishes goals, policies, and programs to foster healthy, livable, and sustainable communities. The General Plan 2035 discusses new housing and jobs within the unincorporated areas of the County in anticipation of population growth in the County and the region.

The following General Plan 2035 policies and programs are relevant to analyzing the Draft 2045 CAP population and housing impacts (Los Angeles County 2015a):

Land Use Element

Policy LU 5.1: Encourage a mix of residential land use designations and development regulations that accommodate various densities, building types and styles.

Policy LU 5.3: Support a mix of land uses that promote bicycling and walking, and reduce VMTs.

Policy LU 5.9: Preserve key industrially designated land for intensive, employment-based uses.

Policy LU 5.10: Encourage employment opportunities and housing to be developed in proximity to one another.

Economic Development Strategies

Policy ED 4.1: Develop a range of financial incentives and programs that encourage development and business growth.

Policy ED 4.2: Support the development of community-level economic development strategies in line with the Los Angeles County Strategic Plan for Economic Development.

Policy ED 4.3: Support the development of small business assistance and entrepreneurial programs that are focused on management, financial planning, and technology application.

Growth Management Program

LU-4: Develop a growth management program for the unincorporated areas that does the following:

- Explore the feasibility of implementing a program that uses infrastructure and service levels as a threshold for development and permitting; and
- Explore the feasibility of establishing greenbelts or other growth management strategies in urbanized areas

2021-2029 Housing Element. The 2021-2029 Housing Element provides information on housing stock, households, demographics, and economic factors, all of which have the potential to impact housing development and access to affordable housing. The 2021-2029 Housing Element identifies housing issues and needs as well as underutilized sites for development. It also ensures that the County meets the requirements of state-mandated RHNA (Los Angeles County 2022).

Policy 1.1: Identify and maintain an adequate inventory of sites to accommodate the County's RHNA.

Policy 2.2: Encourage multi-family residential and mixed-use developments along major commercial and transportation corridors.

Policy 3.1: Promote mixed-income neighborhoods and a diversity of housing types throughout unincorporated Los Angeles County to increase housing choices for all economic segments of the population.

Policy 11.1: Ensure consistency with the Our County Sustainability Plan through equitable and sustainable land use policy.

Policy 11.4: Prioritize and concentrate new housing developments in areas intended to reduce environmental impacts and with adequate existing and planned infrastructure, such as road networks and water supply, including any areas covered by a County-approved specific plan or area plan that plans for housing, affordable housing, natural resource protection, open space preservation, adequate water supplies, necessary infrastructure, wildfire protection, energy conservation, and other sustainable development features.

Antelope Valley Area Plan

The County adopted the Antelope Valley Area Plan on June 16, 2015. The Antelope Valley Planning Area is located in the northern portion of Los Angeles County and is the largest Planning Area. It borders San Bernardino County to the east, Ventura County to the west, and Kern County to the north. The unincorporated portion of the Planning Area covers 1,800 square miles, or 44 percent of Los Angeles County. The incorporated cities in the Planning Area are the city of Lancaster and city of Palmdale, which have their own land use jurisdiction and are not subject to this area plan. The community-based plan contains policies and standards that regulate land use within the unincorporated area of the Antelope Valley (Los Angeles County 2015b).

The following Antelope Valley Area Plan policies related to population and housing are relevant to the Draft 2045 CAP:

Policy ED 1.11: Encourage the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.

Policy ED 1.14: Promote appropriate types of residential development in the vicinity of existing communities and town centers that are in reach of existing infrastructure and utilities.

3.14.2 Impact Analysis

3.14.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would result in a significant impact on population and housing if it would:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- b) Displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.

3.14.2.2 Methodology

The substantial population growth analysis under criteria a) considers whether the Draft 2045 CAP, including projects facilitated by Draft 2045 CAP measures and actions, would result in a substantial population increase. In this context, *substantial* means a population increase that surpasses the forecasted population growth for the region. The methodology acknowledges existing population levels and population forecasts included in the 2021-2029 Housing Element, and estimates population increase resulting from the Project. The displacement analysis under criteria b) considers whether the Project would displace members of the existing population by analyzing potential land use changes, such as residential to nonresidential, so as to necessitate the construction of new housing elsewhere. In determining the level of significance, the analysis assumes that implementation of the Draft 2045 CAP and implementing projects would comply with relevant federal, state, and local laws, regulations, and policies.

3.14.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate locations where individual projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this document does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about individual project implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level. (For further explanation, see Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of population and housing-related impacts. These and other relevant measures and actions include: Measure T1: Increase Density Near High-Quality Transit Areas and associated Action T1.1 (which could result in residential densification in high-quality transit areas locations, which are more common in urban areas) and Action T1.2 (which could facilitate the increased production of various housing types, such as duplex and triplex buildings, where appropriate); Measure T2 and associated Action T2.1 (which could increase the percentage of residents who could live and work within the same community); Measure E2 and associated Action E2.1 and Action E2.2 (each of which could result in renter protections for affordable housing and/or the provision of new affordable housing); and Measure E6 and associated Action E6.4 (which includes an affordable housing preservation program).

In addition, utility-scale, ground-mounted renewable energy generation and related infrastructure projects facilitated by Draft 2045 CAP measures and actions toward decarbonization of the energy supply could displace members of the existing population if they were constructed in locations identified for residential use by the General Plan and zoning code. Decarbonization of energy section measures in the Draft 2045 CAP include: Measure ES2: Procure Zero-Carbon Electricity; Measure ES3: Increase Renewable Energy Production; and Measure ES4: Increase Energy Resilience. Measures that could facilitate the electrification of vehicles include: Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales; Measure T7: Electrify County Fleet Vehicles; Measure T8: Accelerate Freight Decarbonization; and Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles & Equipment. In addition, Strategy 5, Decarbonize Buildings, could facilitate the electrification of buildings.

The timeframe during which the implementation of these actions and measures could affect population and housing would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually causes impacts associated with unplanned population growth, or the displacement of people or housing. If an impact occurs, it would occur immediately and either could be short-term or be long-term depending on the severity of the impact. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific land use and planning impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact 3.14-1: Projects facilitated by the Draft 2045 CAP would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that would not induce substantial unplanned population growth in the unincorporated areas. To the contrary, the Draft 2045 CAP would support development allowed under the General Plan land use assumptions and housing expectations set forth in the 2021-2029 Housing Element. The Draft 2045 CAP includes no site-specific residential or other projects. However, projects facilitating the Draft 2045 CAP measures and actions would be subject to existing General Plan and zoning requirements. Any future project facilitated by the Draft 2045 CAP that proposes a change to the current General Plan or zoning (if such a project were to be proposed) would be subject to a site-specific, project-specific environmental review that would assure that induced growth, if any, would not be unplanned, but rather consistent with the General Plan.

Implementation of the programs contained in the updated 2021-2029 Housing Element would accommodate development required to meet the County's 2021–2029 RHNA allocation. Under the RHNA allocation, the unincorporated areas of the County are required to provide the zoned capacity to accommodate the development of at least 90,052 units using various land use planning strategies (Los Angeles County 2021a). It has been determined that the County's inventory of residential sites will be insufficient to accommodate future housing needs. As such, as part of the 2021-2029 Housing Element, the County includes a rezoning program to accommodate its RHNA gap. The projected population growth as a result of implementing the rezoning program is also consistent with SCAG's planned growth for the unincorporated Los Angeles County region, and also consistent with the planned growth for Los Angeles County as a whole (Los Angeles County 2022).

Furthermore, the anticipated population increase that would be permitted under the Housing Element's rezoning program would be aligned with the SCAG 2020–2045 RTP/SCS forecasts and substantial unplanned growth in the region would not result (Los Angeles County 2021a). Additionally, the anticipated housing unit increase that would be allowed for through the rezoning program would be aligned with housing unit increase expectations from SCAG's 6th Cycle RHNA. Approval of the Project itself, as a policy document, would not change these forecasts, would not provide any goals, policies, or programs that would significantly increase the dwelling unit and populations projected by SCAG. Therefore, the Draft 2045 CAP would not induce unplanned substantial population growth to the area.

Although projects facilitated by the Draft 2045 CAP could indirectly result in the residential densification of some areas (i.e., suburban areas or wilderness areas, such as the Angeles National Forest, in favor of more urbanized areas), they would not result in an unanticipated increase in density or population growth outside of what was accounted for and projected within the General Plan. Others of the Draft 2045 CAP strategies could promote the construction of larger projects such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, water recycling facilities, and waste management facilities. These types of facilities are typically sited away from existing residential areas and would be unlikely to displace substantial numbers, if any, of existing housing or residents. As of 2021, 14 solar projects had been approved in the Antelope Valley, 12 of which were located on land zoned Heavy Agriculture (A-2) (FARR 2021). Although the A-2 zone allows for single-family residences and small group homes along with the agriculture-related uses permitted, this zone not intended as a primarily residential zone. Residential uses occupy only 19 percent of lands in the A-2 zone in the Antelope Valley (FARR 2021). Figure III-26, RHNA Capacity, of the 2021-2029 Revised County of Los Angeles Housing Element includes land that has been classified as suitable sites for housing development (Los Angeles County 2022). The figure shows that most of the selected sites are within Lancaster and other developed areas. Additionally, Policy ED 1.14 of the Antelope Valley Area Plan acts to promote residential development in the vicinity of existing communities and town centers that are in reach of existing infrastructure and utilities; therefore, neither that plan nor the Housing Element anticipates the addition of substantial residential development within existing A-2 zoning, where utility-scale projects such as those facilitated by the Draft 2045 CAP are most likely to be sited.

As mentioned above, utility-scale energy projects are commonly developed away from existing residential areas and typically occupy land that is not conducive to the type of close-in housing development encouraged and anticipated by existing plans. Policy ED 1.11 of the Antelope Valley Area Plan encourages the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated (Los Angeles County 2015b). The policies mentioned above combined with the development of utility-scale energy projects away from existing residential areas support the notion that planned and existing housing and utility-scale energy projects facilitated by the Draft 2045 CAP are unlikely to compete for suitable housing development sites in the Antelope Valley. Therefore, impacts would be less than significant.

Mitigation Measures: Not required

Criterion b) Whether the Project would displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.

Impact 3.14-2: Projects facilitated by the Draft 2045 CAP would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. To the contrary, the projects facilitating the Draft 2045 CAP measures and actions would support affordable housing, promote stability in housing and otherwise allow development as already anticipated by General Plan land use assumptions and anticipated housing projections as per the 2021-2029 Housing Element (Los Angeles County 2022). Implementation of the measures in the Draft 2045 CAP would involve retrofitting existing building or requiring new developments incorporate water conservation systems, energy efficiency upgrades, and sustainable waste management upgrades. These retrofits and upgrades for new developments are not anticipated to displace existing housing or people. This impact would be less than significant.

Mitigation: Not required.

3.14.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts to population and housing, the geographic area of consideration (i.e., the cumulative impacts study area) is Countywide. This geographic scope of analysis is appropriate for the analysis of population and housing because cumulative projects have the potential to cause significant impacts to unincorporated and incorporated areas of Los Angeles County if they exceed the capacity of current and projected population, housing, and employment trends outlined in the General Plan. Cumulative impacts could occur in these areas from the time that a project facilitated by the Draft 2045 CAP that could induce unplanned population growth or could displace people or housing and would last until sufficient housing would exist to accommodate existing and planned growth.

Criterion a)

Impact 3.14-3: The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to the inducement of substantial unplanned population growth in an area, either directly or indirectly. (*Less-than-Significant Cumulative Impact*)

The ongoing impacts of past projects are reflected in Section 3.14.1, *Setting*. If the County's existing inventory of residential sites was insufficient to accommodate the number of units in its RHNA for 2021-2029, then a significant cumulative impact could exist. However, Policy 1.1 of the 2021-2029 Housing Element requires an adequate inventory of vacant and underutilized sites to accommodate the County's RHNA allocation through land use, planning and zoning. Adequate sites for 48,543 new housing units already have been identified above the RHNA requirement of 30,145 units. Other present and reasonably foreseeable future projects would have to be found consistent with the General Plan and comply with applicable specific plan, area plan, local coastal plan, community plan, neighborhood plan and zoning requirements. The Draft 2045 CAP's incremental contribution of a less-than-significant impact would not cause, or combine with the impacts of other cumulative projects to cause a significant cumulative impact. Thus, the cumulative impact would be less than significant, and the Project's contribution to this impact would be less-than-cumulatively-considerable.

Mitigation: None required.

Criterion b)

Impact 3.14-4: The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. (*Less-than-Significant Cumulative Impact*)

The ongoing impacts of past projects are reflected in Section 3.14.1.2, *Environmental Setting*. Other present and reasonably foreseeable future projects, including projects facilitated by the Draft 2045 CAP measures and actions, would be developed in accordance with the General Plan, zoning, and other local land use plans. The Draft 2045 CAP would not displace a substantial number of existing people or housing; rather, as discussed above, the projects facilitating the Draft 2045 CAP measures and actions would support affordable housing, promote stability in housing, and otherwise allow development as already anticipated by General Plan land use assumptions and anticipated housing projections as per the 2021-2029 Housing Element (Los Angeles County 2022). The Draft 2045 CAP's incremental contribution of a less-than-significant impact would not cause, or combine with the incremental impacts of other cumulative projects to cause a significant cumulative impact. Thus, this cumulative impact would be less than significant, and the Project's contribution to this impact would be less-than-cumulatively-considerable.

Mitigation: None required.

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3.15 Transportation

This section identifies and evaluates issues related to transportation to determine whether the Project would result in a significant impact related to the circulation system (as measured by vehicle miles traveled [VMT]), roadway safety, and emergency access. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to transportation suggest the implementation of the Draft 2045 CAP would increase the number of waste facilities in Los Angeles County and thus cause increased trip rates because people would have multiple trash pick-ups per week instead of one.

3.15.1 Setting

3.15.1.1 Study Area

The study area for this analysis of impacts to transportation consists of transportation facilities located in unincorporated areas of Los Angeles County. Transportation facilities include roadways, bicycle, and pedestrian facilities (active transportation), and transit facilities. See Figure 2 1, *Map of Unincorporated Los Angeles County*.

3.15.1.2 Environmental Setting

Vehicle Miles Traveled

CEQA Guidelines Section 15064.3(a) establishes VMT as the most appropriate measure of transportation impacts. Subdivision (a) of this section defines VMT as “the amount and distance of automobile travel attributable to a project.” The term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. For land use projects and plans, based on the predominant use, the following VMT efficiency metrics and method of estimation are used:

Total VMT per Service Population: The total VMT to and from all zones in the geographic area are divided by the total service population to get the efficiency metric of VMT per service population. The total service population is the sum of the number residents and the number of employees.

Residential (home-based) VMT per capita: All home-based auto vehicle trips are traced back to the residence of the trip-maker (non-home-based trips are excluded) and then divided by the population within the geographic area to get the efficiency metric of home-based VMT per capita (or per resident).

Employment (home-based work) VMT per employee: All auto vehicle trips between home and work are counted, and then divided by the number of employees within the geographic area to get the efficiency metric of home-based work VMT per employee.

Consistent with the the County’s *Transportation Impact Analysis Guidelines* (TIA Guidelines, LACPW 2020), the VMT analysis conducted for this EIR used the regional Southern California Association of Governments (SCAG) Model to prepare VMT estimates. Through the development of the TIA Guidelines, the County established the average existing VMT for the unincorporated areas of the County and for the Countywide baseline VMT as shown in **Table 3.15-1**.¹ The average baseline VMT for the unincorporated areas is higher than the baseline VMT for the SCAG region.

**TABLE 3.15-1
 2016 BASELINE VMT METRICS FOR LOS ANGELES COUNTY**

| Region | Total VMT per Service Population | Residential VMT per Capita | Employment VMT per Employee |
|-----------------------|----------------------------------|----------------------------|-----------------------------|
| Unincorporated County | 35.9 | 17.0 | 20.7 |
| SCAG Region | 34.2 | 15.0 | 19.0 |

SOURCE: LACPW 2020.

Roadway Network

The California Department of Transportation (Caltrans) is the state agency responsible for the maintenance of freeways and state highways. Los Angeles County Department of Public Works is responsible for the design, construction, operation, maintenance, and repair of roads in the unincorporated areas of the County and in a number of local jurisdictions that contract with the County for these services. As detailed in the County’s General Plan, the Los Angeles County Highway Plan designates the functional classification system of Los Angeles County’s highway system; the Highway Plan roadway classifications and descriptions are provided in **Table 3.15-2** (County Planning 2015).

¹ The most current version of the SCAG model has a base year of 2012 and future year of 2040 and was developed for the 2016 SCAG Regional Transportation Plan and Sustainable Communities Strategy, April 2016. This was the best and most up-to-date tool available to reflect baseline transportation conditions when analysis of the Project was conducted.

**TABLE 3.15-2
HIGHWAY PLAN ROADWAY CLASSIFICATIONS**

| Classification | Description |
|---------------------------|--|
| Major Highway | <p>This classification includes urban highways that are of Countywide significance and are, or are projected to be, the most highly traveled routes. These roads generally require four or more lanes of moving traffic, channelized medians and, to the extent possible, access control and limits on intersecting streets. This width may vary to meet extraordinary circumstances.</p> <p>Also classified as major highways are key connectors, non-urban access ways, and recreational roads. The bulk of these routes are not planned for urban type improvement. However, the full major highway right-of-way width of 100 feet or more is generally required to maintain adequate safety and vehicular capacity.</p> |
| Secondary Highway | <p>Secondary highways include urban routes that serve or are planned to serve an areawide or Countywide function, but are less heavily traveled than major highways. In a few cases, routes that carry major highway levels of traffic are classified as secondary highways because it is impractical to widen them to major highway standards. In addition to the Countywide function, secondary highways frequently act as oversized collector roads that feed the Countywide system. In this capacity, the routes serve to remove heavy traffic from local streets, especially in residential areas.</p> <p>In urban areas, secondary highways normally have four moving lanes of traffic on 80 feet of right-of-way. However, configuration and width may vary with traffic demand and conditions on the ground. Access control, especially to residential property and minor streets, is desirable along these roads.</p> |
| Limited Secondary Highway | <p>Limited secondary highways are located in remote foothill, mountain, and canyon areas. Their primary function is to provide access to low-density settlements, ranches, and recreational areas. The standard improvement for limited secondary highways is two traffic lanes on 64 feet of right-of-way. Typically, such improvements consist of 28–30 feet of pavement with graded shoulders. Left-turn pockets and passing lanes may be provided when required for traffic safety. The right-of-way may be increased to 80 feet for additional improvements where traffic or drainage conditions warrant.</p> <p>A uniform building setback shall be established 40 feet from the centerline of all limited secondary highways in order to preserve proper sight distances and to help maintain a rural appearance adjacent to the roadway. This setback shall be in addition to any yard requirement contained in the Zoning Code.</p> |
| Parkway | <p>The parkway classification is applied to urban and non-urban routes that having park-like features either within or adjacent to the roadway.</p> |
| Expressway | <p>The expressway classification is primarily for through-traffic with full or partial control of access. Expressways can accommodate 6 to 10 traffic lanes. The width of right-of-way varies as necessary to incorporate these features but shall not be less than 80 feet. Roadway improvements vary depending upon the composition and volume of traffic carried.</p> |

SOURCE: Los Angeles County 2015.

There are 11 planning areas in Los Angeles County. The main freeways and highways in each of the planning areas are listed below:

Antelope Valley Planning Area. This area is served by portions of Interstate (I) 5 and State Route (SR) 14. The main north–south highways include 30th Street, Sierra Highway, 50th Street, 47th Street, 126th Street, 210th Street, 240th Street, Largo Vista Road, San Gabriel Canyon Road (SR-39), Mount Wilson Red Box Road, Angeles Forest Highway, and Upper Big Tujunga Canyon Road. The east–west highways and secondary highways include: Avenue B, Avenue C, Lancaster Road (SR-138), Avenue D, Avenue J, Avenue K/Avenue K 8, Avenue O, Avenue P, Palmdale Boulevard, Pearblossom Highway, Antelope Highway (SR-138), Big Pines Highway, and Angeles Crest Highway (SR-2).

Coastal Islands Planning Area. Two of the eight California Channel Islands, Santa Catalina Island and San Clemente Island, make up the Coastal Islands Planning Area. Access to Santa Catalina Island is via ferry service from Long Beach, San Pedro, and Dana Point. Access to San Clemente Island is via charter boats from Long Beach, Newport Beach, and San Diego.

East San Gabriel Valley Planning Area. This area is served by portions of I-10, SR-210, SR-57, SR-60, and SR-71. Main north–south highways and secondary highways include Harbor Boulevard, Azusa Avenue, Hacienda Boulevard, and Irwindale Avenue/Sunset Avenue. East–west highway and secondary highways include Colima Road, Amar Road, Sunset Avenue, 7th Street, Badillo Street, Arrow Highway, Baseline Road, and Temple Avenue.

Gateway Planning Area. This area is served by portions of I-710, I-605, I-405, I-105, I-5, SR-91, SR-103, and SR-22. The main north–south highways and secondary highways include Alameda Street, Santa Fe Avenue, Norwalk Boulevard, Carmenita Road, Painter Avenue, Valley View Avenue, and La Mirada Boulevard. East–west highways and secondary highways include Mulberry Drive, Telegraph Road, and Mills Avenue.

Metro Planning Area. This area is served by portions of I-110, I-105, I-10, I-5, I-710, SR-60, and US-101. The main north–south highways and secondary highways include Alameda Street, Central Avenue, Broadway, Atlantic Avenue, Western Avenue, Central Avenue, Santa Ana Avenue, and Atlantic Boulevard. East–west highways and secondary highways include Florence Street, Firestone Boulevard, Century Boulevard, Santa Ana Boulevard, Imperial Highway and El Segundo Boulevard, Rosecrans Avenue, Compton Boulevard, Redondo Beach Boulevard, Rosecrans Boulevard, Manchester Avenue, Florence Avenue, Olympic Boulevard, Whittier Boulevard, 3rd Street, Cesar E Chavez Avenue, and Beverly Boulevard.

San Fernando Valley Planning Area. This area is served by portions of I-210, I-5, I-405, SR-170, SR-134, SR-118, and SR-2. East–west highways include Lake Manor Drive and Foothill Boulevard.

Santa Clarita Valley Planning Area. This area is served by portions of I-5 and SR-14. North–south highways include Sierra Highway and Plum Canyon Road.

Santa Monica Mountains Planning Area. There are no key arterials that pass through the unincorporated areas in this planning area; however, this area is served by portions of US-101.

South Bay Planning Area. This area is served by portions of I-405, I-110, I-105, SR-91, and SR-47. The main north–south highways include Vermont Avenue, Hawthorne Boulevard (SR-107), and La Cienega Boulevard. East–west highways and secondary highways include Torrance Boulevard, Manhattan Beach Boulevard, and Sepulveda Boulevard.

West San Gabriel Valley Planning Area. This area is served by portions of I-210, I-605, I-710, SR-110, I-10, and SR-60. North–south highways include Rosemead Boulevard (SR-19), San Gabriel Boulevard, Sierra Madre Boulevard, Peck Road, and Myrtle Avenue. East–west highways and secondary highways include Potrero Grande Drive, Live Oak Avenue, New York Drive, Woodbury Road, Mariposa Street and Marengo Street, and Huntington Drive.

Westside Planning Area. This area is served by portions of I-405, I-10, and SR-90. La Brea Avenue is the north–south highway and Slauson Avenue and Stocker Street are east–west highways within the planning area.

Transit Network

Los Angeles County is served by a large public transit system that includes rail systems and various bus service options, such as transitways and bus rapid transit systems. The Los Angeles County Metropolitan Transportation Authority (Metro) operates the Metro rail system within Los Angeles County, which has six lines, including two subway (heavy rail rapid transit) lines (the B and D lines) and four light rail lines (the A, C, L, and E lines), and 93 stations. The Metro rail system connects with the Metro Busway bus rapid transit system (the G and J lines) and also with the Metrolink commuter rail system.

Metrolink and Amtrak are two additional rail service operators in Los Angeles County. The Southern California Regional Rail Authority operates the Metrolink commuter rail system, which has its hub in Downtown Los Angeles at Union Station and extends to Ventura, San Bernardino, Riverside, Orange, and San Diego Counties and serves some of the unincorporated areas. Amtrak provides interstate service from points around the United States to Union Station, as well as regional service between major cities throughout California.

The Metro bus system comprises 140 lines/170 routes serving 16,000 bus stops in Los Angeles County, per the NextGen Bus Plan (Metro 2020). With the transforming landscape of transportation and travel demand within Los Angeles County and the addition of Metro rail and the bus rapid transit system, Metro service has been observing a decline in ridership since 2014. Metro approved the NextGen Bus Plan in October 2020 to provide a better bus system for the County (Metro 2023); the resulting reorganization of Metro transit service was fully implemented as of December 2021.

Los Angeles County Department of Public Works and LAGoBus operate fixed-route shuttle services and the Link to provide an affordable and efficient transit service (generally with a frequency of 30 to 60 minutes) to key destinations for residents in communities in the unincorporated areas of the County:

- Topanga Shuttle service connects Topanga/Woodland Hills and Santa Monica
- Acton/Agua Dulce Shuttle service in Acton and Agua Dulce connects to Santa Clara Transit Station and Newhall Metrolink Station
- Avocado Heights/Bassett/West Valinda Shuttle service in Avocado Heights
- Height Hopper Shuttle connects Hacienda Height and Rowland Heights communities
- East Valinda Shuttle
- Edmund D. Edelman's Children's Court Shuttle service in East Los Angeles
- El Sol Shuttle service in East Los Angeles
- Sunshine Shuttle service in South Whittier
- Wellness Center Shuttle services the Los Angeles County/USC Medical Center

The Link provides services on the following routes and para transit service in the unincorporated areas of the County:

- Athens Shuttle service in West Athens–Westmont
- Baldwin Hills Parklands Shuttle service connects La Cienega/Jefferson Boulevard Metro Station to Kenneth Hahn State Recreation Area
- Florence–Firestone/Walnut Park Shuttle service in Florence-Firestone and Walnut Park
- King Medical Center Shuttle service in Willowbrook
- Lennox Shuttle service in Lennox
- Willowbrook Shuttle

These shuttle services connect with transit providers such as Metro, Metrolink, Torrance Transit, Los Angeles Department of Transportation DASH, Gardena Bus Lines, Culver City Bus, Gardena Bus lines, Inglewood I-Line Trolley, Big Blue Bus, Santa Clara Transit, La Puente Link, Foothill Transit, La Puente Link, Alhambra Community Transit, El Sol Shuttle, Monterey Park Spirit, Montebello Transit, and Norwalk Transit.

Active Transportation Network

Los Angeles County has a mix of rural, suburban, and urban communities that provide different opportunities for and challenges to active modes of transportation such as walking and biking. The pedestrian network generally includes sidewalks, shared use paths, and trails. To enhance walkability in the communities, a plan for pedestrian facilities has been prepared for unincorporated areas of the County. The Step by Step Los Angeles County plan (Los Angeles County Department of Public Health 2019) is discussed in detail in Section 3.15.1.3.

Per LA County’s 2012 Bicycle Master Plan, bicycle facilities in unincorporated areas of the County are classified as follows (LA County DPW 2012):

Class I – Bicycle Path: Bike paths, also called shared-use paths or multi-use paths, are paved rights-of-way for exclusive use by bicyclists, pedestrians, and other non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway rights-of-way or exclusive rights-of-way. Most of the Los Angeles County bicycle paths are located along creek and river channels and along the beach.

Class II – Bicycle Lane: Bike lanes are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive bicycle travel. Bike lanes are one-way facilities on either side of a roadway. Bike lanes are located adjacent to a curb where no on-street parking exists. Where on-street parking is present, bike lanes are striped to the left side of the parking lane.

Class III – Bicycle Route: Bike routes provide shared use with motor vehicle traffic within the same travel lane. Designated by signs, bike routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand.

Class IV – Bikeways: A Class IV Bikeway (separated bikeway) is a bikeway for the exclusive use of bicycles and includes a separation required between the separated bikeway

and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

3.15.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

There are no federal laws, regulations, or policies pertaining to transportation that apply to the Draft 2045 CAP.

State Laws, Regulations, and Policies

Senate Bill 743

On September 27, 2013, Governor Edmund G. Brown Jr., signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline review under the CEQA process for several categories of development projects, including the development of infill projects in transit priority areas, and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas (GHG) emissions. SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of level of service (LOS) in CEQA documents.

Pursuant to SB 743, the CEQA Guidelines were updated in December 2018 to add Section 15064.3, *Determining the Significance of Transportation Impacts*, which describes specific considerations for evaluating a project’s transportation impacts using VMT methodology. Additionally, the Governor’s Office of Planning and Research (OPR) released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018) to provide guidance on VMT analysis. In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis and selecting a significance threshold that may be appropriate for their particular jurisdictions. While OPR’s Technical Advisory is not binding on public agencies, CEQA allows lead agencies to “consider thresholds of significance . . . recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence” (CEQA Guidelines Section 15064.7[c]).

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions as follows:

1. **Land Use Projects.** Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within 0.5 miles of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact.² Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

² OPR’s Technical Advisory 2018; Public Resources Code Section 21064.3 (“‘Major transit stop’ means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.”). See also Public Resources Code Section 21155 (“For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.”)

2. **Transportation Projects.** Transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
3. **Qualitative Analysis.** If existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
4. **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate VMT and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

Since projects facilitated by the Draft 2045 CAP measures and actions could fall under either the Land Use Projects or Transportation Projects categories, CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(2) would apply to the Draft 2045 CAP.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act; SB 375) supports the state's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, the California Air Resources Board sets regional targets for GHG emissions reductions from passenger vehicle use.

Each of California's MPOs must prepare a sustainable communities strategy (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. California Air Resources Board must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets.

SCAG adopted its updated RTP/SCS in October 2020 to address requirements of SB 375. This legislation is relevant to evaluation of the Project's transportation impacts because the Project includes strategies to reduce transportation-related GHG, which may be complementary to or consistent with strategies identified in RTP/SCS. SCAG's adopted RTP, per SB 375 (*Connect SoCal*) is discussed below.

Assembly Bill 2432

Assembly Bill (AB) 2432, enacted in August 2022, makes changes to Article 3 of Chapter 9 of Division 2.5 of the Streets and Highways Code, relating to neighborhood electric vehicles (NEVs). A NEV is a low-speed vehicle as defined by Section 385.5 of the California Vehicle Code. AB 2432 authorizes the County (or any city in the county) to establish a NEV transportation plan that aims to reduce gasoline demand and vehicle emissions by offering a cleaner, more economical means of local transportation within the plan area. AB 2432 defines the elements that shall be included in the NEV transportation plan, which include approved routes, a consideration of intermodal transfer locations, pavement treatments, parking and charging locations, and operating standards.

California Department of Transportation

As the owner and operator of the state highway system, Caltrans implements established state planning priorities in all functional plans, programs, and activities. Caltrans coordinates and consults with local jurisdictions when proposed local land use planning and development may impact state highway facilities.

The Caltrans *Transportation Impact Study Guide* establishes VMT as Caltrans' primary review focus when evaluating local land use projects, replacing LOS as the metric used in CEQA transportation analyses (Caltrans 2020a). Caltrans recommends use of OPR's recommended thresholds and guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018) for land use projects. In addition to VMT, the 2020 *Transportation Impact Study Guide* states that it may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the state highway system and connections with the state highway system.

In addition, Caltrans issued the *Transportation Analysis Framework: Evaluating Transportation Impacts of State Highway System Projects* (Caltrans 2020b), which is one component of a set of materials prepared by Caltrans to guide the implementation of SB 743. The purpose of this document is to assist Caltrans district staff and others responsible for assessing likely transportation impacts as part of environmental review of proposed projects on the state highway system by providing guidance on the preferred approach for analyzing the VMT attributable to proposed transportation projects (induced travel) in various project settings.

Regional and Local Laws, Regulations, and Policies

Southern California Association of Governments Regional Transportation Plan/ Sustainable Communities Strategy

SCAG develops the RTP, which presents the transportation vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura counties. SB 375 was enacted to reduce GHG emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. Under the law, SCAG is tasked with developing an SCS, an element of the RTP that provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The SCS is intended to focus the majority of

new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern is intended to support and complement the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures.

The 2020–2045 RTP/SCS, also known as *Connect SoCal*, is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for Southern Californians (SCAG 2020). The SCAG Regional Council adopted *Connect SoCal* on September 3, 2020.

This regional planning document is relevant to the evaluation of the Project’s transportation impacts because the Project would include measures and actions to reduce transportation-related GHG emissions, which may be complementary to or consistent with strategies identified in the RTP/SCS.

Los Angeles County Metropolitan Transportation Authority

Metro is the County-level transportation planning and public transportation operating agency that was created by the state to set policy and to coordinate, plan, fund, build, and operate transit services and transportation programs throughout Los Angeles County. Metro supports the transportation improvement programs of the 88 cities and 16 municipal transit operators within Los Angeles County, as well as Los Angeles’s paratransit provider, Access Services, and its regional commuter rail service provider, Metrolink. Metro also is responsible for the preparation of the Long-Range Transportation Plan and the Short-Range Transportation Plan. The current Long- and Short-Range Transportation Plans are the 2020 Long-Range Transportation Plan (Metro 2020) and the 2014 Short-Range Transportation Plan (Metro 2014). The transportation plans include all major transit and highway projects (partially or fully funded), existing programs and policies, and new policies and initiatives required to achieve Metro’s regional goals.

Metro is also responsible for implementing Measure M, which was approved by Los Angeles County voters in 2016 (Metro 2022). The no-sunset half-cent sales tax measure funds projects to ease traffic, repair local streets and sidewalks, expand public transportation, complete the earthquake retrofitting of bridges, and subsidize transit fares for students, seniors, and persons with disabilities. Measure M partially funds many Metro projects and makes funding available to local jurisdictions via the Metro Subregional Program; the Metro Active Transportation, Transit and First/Last Mile Program; and Local Return.

Los Angeles County Department of Public Works

The Los Angeles County Department of Public Works adopted its *Transportation Impact Analysis Guidelines* on July 23, 2020 (LA County DPW 2020). The *Transportation Impact Analysis Guidelines* include guidance and requirements for VMT analysis of development projects, including project screening, analysis methodology, significance criteria, impact assessment, and mitigation strategies. Significance criteria in the *Transportation Impact Analysis Guidelines* for land use

projects are focused on a project's potential to increase VMT above thresholds that are tied to regional averages. For transportation projects, significance criteria only apply to projects that would increase capacity or otherwise induce additional travel on the roadway network. Since the Project is intended to reduce VMT, most, if not all, Draft 2045 CAP measures would be screened from detailed analysis consistent with the *Transportation Impact Analysis Guidelines*.

Los Angeles County General Plan Mobility Element

The Mobility Element of the General Plan contains goals designed to further the County's mobility strategy pursuant to the California Complete Streets Act of 2007. The Mobility Element addresses this requirement with policies and programs that consider all modes of travel, with the goal of making streets safer, accessible, and more convenient to walk, ride a bicycle, or take transit (County Planning 2015). As mentioned previously, a project's impact on automobile delay or LOS is no longer a consideration when identifying a significant impact under CEQA; therefore, the General Plan policies related to performance of roadway system are not included in this discussion. The relevant goals and policies within the Mobility Element are presented below (Los Angeles County 2015).

Goal M 1: Street designs that incorporate the needs of all users. (Complete Streets)

Policy M 1.1: Provide for the accommodation of all users, including pedestrians, motorists, bicyclists, equestrians, users of public transit, seniors, children, and persons with disabilities when requiring or planning for new, or retrofitting existing, roads and streets.

Policy M 1.2: Ensure that streets are safe for sensitive users, such as seniors and children.

Policy M 1.3: Utilize industry standard rating systems, such as the Institute for Sustainable Infrastructure (ISI) Rating System, to assess sustainability and effectiveness of street systems for all users.

Goal M 2: Interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use. (Active Transportation Design)

Policy M 2.1: Design streets that accommodate pedestrians and bicyclists, and reduce motor vehicle accidents through a context-sensitive process that addresses the unique characteristics of urban, suburban, and rural communities.

Policy M 2.2: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following street designs, whenever appropriate and feasible:

- Lane width reductions to 10 or 11 feet in low-speed environments with a low volume of heavy vehicles.
- Wider lanes may still be required for lanes adjacent to the curb, and where buses and trucks are expected.
- Low-speed designs.
- Access management practices developed through a community-driven process.
- Back in angle parking at locations that have available roadway width and bike lanes, where appropriate.

Policy M 2.3: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following intersection designs, whenever appropriate and feasible:

- Right angle intersections that reduce intersection skew.
- Smaller corner radii to reduce crossing distances and slow turning vehicles.
- Traffic calming measures, such as bulb-outs, sharrows, medians, roundabouts, and narrowing or reducing the number of lanes (road diets) on streets.
- Crossings at all legs of an intersection.
- Shorter crossing distances for pedestrians.
- Right-turn channelization islands. Sharper angles of slip lanes may also be utilized.
- Signal progression at speeds that support the target speed of the corridor.
- Pedestrian push buttons when pedestrian signals are not automatically recalled.
- Walk interval on recall for short crossings.
- Left-turn phasing.
- Prohibit right turn on red.
- Signs to remind drivers to yield to pedestrians.

Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible:

- Designs that limit dead-end streets and dead-end sidewalks.
- Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops.
- Designs for curb ramps, which are pedestrian friendly and compliant with the American Disability Act (ADA).
- Perpendicular curb ramps at locations where it is feasible.
- Pedestrian walking speed based on the latest standard for signal timing. Slower speeds should be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.)
- Approved devices to extend the pedestrian clearance times at signalized intersections.
- Accessible Pedestrian Signals (APS) at signalized intersections.
- Pedestrian crossings at signalized intersections without double or triple left or right turn lanes.
- Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections.
- Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes.
- Advance stop lines at signalized intersections.

- Medians or crossing islands to divide long crossings.
- High visibility crosswalks.
- Pedestrian signage.
- Advanced yield lines for uncontrolled crosswalks.
- Rectangular Rapid Flashing Beacon or other similar approved technology at locations of high pedestrian traffic.
- Safe and convenient crossing locations at transit stations and transit stops located at safe intersections.

Policy M 2.5: Ensure a comfortable bicycling environment by implementing the following, whenever appropriate and feasible:

- Bicycle signal heads at intersections.
- Bicycle signal detection at all signalized intersections.
- Wayfinding signage.
- Road diet techniques, such as lane narrowing, lane removal, and parking removal/restriction.
- Appropriate lighting on all bikeways, including those in rural areas.
- Designs, or other similar features, such as: shoulder bikeways, cycle tracks, contra flow bike lanes, shared use paths, buffered bike lanes, raised bike lanes, and bicycle boulevards.

Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.

Policy M 2.7: Require sidewalks and bikeways to accommodate the existing and projected volume of pedestrian and bicycle activity, considering both the paved width and the unobstructed width available for walking.

Policy M 2.8: Connect pedestrian and bicycle paths to schools, public transportation, major employment centers, shopping centers, government buildings, residential neighborhoods, and other destinations.

Policy M 2.9: Encourage the planting of trees along streets and other forms of landscaping to enliven streetscapes by blending natural features with built features.

Policy M 2.10: Encourage the provision of amenities, such as benches, shelters, secure bicycle storage, and street furniture, and comfortable, safe waiting areas near transit stops.

Policy M 2.11: Promote the continuity of streets and sidewalks through design features, such as limiting mid-block curb cuts, encouraging access through side streets or alleys, and promoting shorter block lengths.

Goal M 3: Streets that incorporate innovative designs. (Innovative Street Design)

Policy M 3.1: Facilitate safe roadway designs that protect users, preserve state and federal funding, and provide reasonable protection from liability.

Policy M 3.2: Consider innovative designs when part of an accepted standard, or when properly vetted through an appropriate engineering/design review, in compliance with all state and federal laws.

Policy M 3.3: Complete the following studies prior to the implementation of innovative design concepts:

- An analysis of the current and future context of the community and neighborhood in which they are proposed;
- A balanced assessment of the needs of all users and travel modes (i.e., pedestrian, bicycle, transit, vehicular, and equestrian, where appropriate);
- A technical assessment of the operational and safety characteristics for each mode; and
- A consistency check with transportation network plans, including the Highway Plan, Bicycle Master Plan, and Community Pedestrian Plans.

Goal M 4: An efficient multimodal transportation system that serves the needs of all residents.

Policy M 4.1: Expand transportation options that reduce automobile dependence.

Policy M 4.2: Expand shuttle services to connect major transit centers to community points of interest.

Policy M 4.3: Maintain transit services within the unincorporated areas that are affordable, timely, cost-effective, and responsive to growth patterns and community input.

Policy M 4.4: Ensure expanded mobility and increase transit access for underserved transit users, such as seniors, students, low-income households, and persons with disabilities.

Policy M 4.5: Encourage continuous, direct routes through a connected system of streets, with small blocks and minimal dead ends (cul-de-sacs).

Policy M 4.8: Provide and maintain appropriate signage for streets, roads and transit.

Policy M 4.9: Ensure the participation of all potentially affected communities in the transportation planning and decision-making process.

Policy M 4.10: Support the linkage of regional and community-level transportation systems, including multimodal networks.

Policy M 4.11: Improve the efficiency of the public transportation system with bus lanes, signal prioritization, and connections to the larger regional transportation network.

Policy M 4.12: Work with adjacent jurisdictions to ensure connectivity and the creation of an integrated regional network.

Policy M 4.13: Coordinate with adjacent jurisdictions in the review of land development projects near jurisdictional borders to ensure appropriate roadway transitions and multimodal connectivity.

Policy M 4.14: Coordinate with Caltrans on mobility and land use decisions that may affect state transportation facilities.

Policy M 4.15: Reduce vehicle trips through the use of mobility management practices, such as the reduction of parking requirements, employer/institution-based transit passes, regional carpooling programs, and telecommuting.

Policy M 4.16: Promote mobility management practices, including incentives to change transit behavior and using technologies, to reduce VMTs.

Goal M 5: Land use planning and transportation management that facilitates the use of transit.

Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design to encourage transit ridership.

Policy M 5.2: Implement parking strategies that facilitate transit use and reduce automobile dependence.

Policy M 5.3: Maintain transportation right-of-way corridors for future transportation uses, including bikeways, or new passenger rail or bus services.

Goal M 7: Transportation networks that minimizes negative impacts to the environment and communities.

Policy M 7.5: In rural areas, require rural highway and street standards that minimize the width of paving and the placement of curbs, gutters, sidewalks, street lighting, and traffic signals, except where necessary for public safety.

Los Angeles County Bicycle Master Plan 2012 and Bicycle Master Plan Update

The Los Angeles County Board of Supervisors adopted the current Bicycle Master Plan in March 2012. The plan estimates that within the Metro/Downtown Los Angeles area by the year 2030, the total number of daily bicycle commuters could increase from the current estimate of 2,612 to 12,021 (Los Angeles County DPW 2012). The bike-to-work mode share is estimated by the plan to increase from the current 0.30 percent to 1.0 percent for that subarea. Metro publishes the LA Metro Bike Map, a regional map that includes existing bicycle facilities within all jurisdictions of Los Angeles County. The Bike Map identifies Class II Bike Lanes, Class III Bike Routes, and Bicycle Boulevards throughout the County. On October 15, 2019, the Board of Supervisors directed Los Angeles County Department of Public Works to initiate an update to the 2012 Bicycle Master Plan in partnership with Regional Planning, Beaches and Harbors, Parks and Recreation, the Sheriff's Department, and Highway Patrol. Los Angeles County Department of Public Works would also revise the plan's program EIR to analyze transportation impacts using VMT rather than LOS. As of this writing, no updates to the Bicycle Master Plan have been completed.

Along with the proposed bikeways, the current Bicycle Master Plan recommends various bicycle-friendly policies and programs to promote bicycle ridership among users of all ages and skill sets within Los Angeles County. The relevant goals and policies are presented below:

Goal 1: Bikeway System. Expanded, improved, and interconnected system of county bikeways and bikeway support facilities to provide a viable transportation alternative for all levels of bicycling abilities.

Policy 1.1: Construct bikeways proposed in 2012 County of Los Angeles Bicycle Master Plan over the next 20 years.

Policy 1.3: Coordinate with developers to provide bicycle facilities that encourage biking and link to key destinations.

Policy 1.4: Support the development of bicycle facilities that encourage new riders.

Policy 1.6: Develop a bicycle parking policy.

Goal 2: Increased safety of roadway for all users.

Policy 2.1: Implement projects that improve the safety of bicyclists at key locations.

Policy 2.2: Encourage alternative street standards that improve safety such as lane reconfigurations and traffic calming.

Policy 2.4: Evaluate impacts on bicyclists when designing new or reconfiguring streets.

Policy 2.6: Support development of a Healthy Design Ordinance.

Policy 2.7: Support the use of the Model Design Manual for Living Streets and Design as a reference for LACPW.

Step by Step Los Angeles County

In 2019, the Los Angeles County Board of Supervisors adopted *Step by Step Los Angeles County: Pedestrian Plan for Unincorporated Communities* (Step by Step), a policy framework for how the County proposes to get more people walking, make walking safer, and support healthy active lifestyles. It also includes Community Pedestrian Plans for the communities of Lake Los Angeles, Walnut Park, Westmont/West Athens, and Whittier–Los Nietos. The Step by Step pedestrian plan communities were selected based on key criteria that identified communities in unincorporated Los Angeles County with high rates of pedestrian collisions that resulted in death or injury (Los Angeles County Department of Public Health 2019). Additionally, one goal of the inaugural pedestrian plans that were approved in 2019 was to pilot pedestrian planning and design in a mix of rural (Lake Los Angeles), urban (Westmost–West Athens and Walnut Park), and suburban (West Whittier–Los Nietos) communities. The next rounds of Community Pedestrian Plans are slated to be developed for the unincorporated neighborhoods of East Los Angeles, East Rancho Dominguez, Florence–Firestone, and Willowbrook/West Rancho Dominguez–Victoria in the 2020 to 2023 timeframe.

Step by Step outlines actions, policies, procedures, and programs that the County will consider to enhance walkability across unincorporated communities. The pedestrian plans also provide guidance in developing a network of sidewalks, off-street paths, trails, and facilities (such as lighting, crosswalks, and benches) that allow people to walk safely and comfortably to key destinations. It includes policies that address safety, traffic, education, and programs to promote a safe, walkable community. The relevant goals and policies of Step by Step Los Angeles County are presented below:

Goal 1: Safe Streets. Eliminate all fatalities and severe injuries involving people walking.

Policy SS-1: Coordinate across County departments, and with the California Highway Patrol, community members, and organizations to implement Vision Zero Los Angeles County to eliminate traffic-related pedestrian fatalities and severe injuries.

Policy SS-2: Elevate the pedestrian walking experience by enhancing pedestrian crossings and implementing traffic calming measures where feasible and appropriate.

Goal 2: Make Walking the Easy and Healthy Choice. Communities, streets, and sidewalks are designed to promote walking and healthy living.

Policy EH-1: Make transportation, land use, and building design or site planning decisions that make walking a logical first choice transportation option for residents and visitors.

Policy EH-2: Design pedestrian-friendly streets to make walking a convenient first choice for daily activities.

Policy EH-3: Provide opportunities for community participation in creating safe and inviting pedestrian environments.

Goal 3: Connectivity. Develop and maintain a complete pedestrian network that links transit, schools, parks, and other key destinations in the community.

Policy C-1: Support projects that increase pedestrian connectivity, reduce walking distances, and enhance safety.

Policy C-2: Create a barrier-free pedestrian network. Maintain pedestrian facilities to ensure they are free of hazards and obstructions.

Goal 4: Equity. Make unincorporated Los Angeles County more walkable for all through equity in public engagement, service delivery, accessibility, planning, and capital investments.

Policy EQ-1: Prioritize the needs of low-income communities of color and the most vulnerable users.

Policy EQ-2: Create a pedestrian network that supports people of all abilities – especially youth, seniors, and those with disabilities. This includes, but is not limited to, wide sidewalks, curb ramps, accessible pedestrian signals to aid the visually impaired, and adequate pedestrian crossing times.

Goal 5: Safe Communities. Address real and perceived personal safety concerns to encourage walking.

Policy SC-1: Implement community environmental design and community programs that enhance public safety that supports people of all abilities – especially youth, seniors, and those with disabilities. This includes, but is not limited to, wide sidewalks, curb ramps, accessible pedestrian signals to aid the visually impaired, and adequate pedestrian crossing times.

Goal 6: Sustainability and Preservation. Pedestrian projects and programs enhance the natural environment including clean air and water.

Policy SP-1: Improve air quality and reduce greenhouse gas emissions through reduced car dependency.

Policy SP-2: Enhance the natural environment through the greening of pedestrian space by planting trees and vegetation, and the use of efficient materials and processes in sidewalk and street enhancement projects.

3.15.2 Impact Analysis

3.15.2.1 Significance Criteria

The Project would result in a significant impact to transportation if it would:

- a) Conflict with an applicable program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b);
- c) Substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- d) Result in inadequate emergency access.

3.15.2.2 Methodology

As described in Chapter 2, *Project Description*, the Draft 2045 CAP is being evaluated at a programmatic level, and the analysis is based on information available to the County where reasonably foreseeable physical changes in the environment could be considered. This analysis is based in part on a review of the transportation information contained in the relevant planning documents for unincorporated areas of Los Angeles County. Planning documents considered in the analysis of transportation impacts included Connect SoCal (the 2020–2045 RTP/SCS), the General Plan Mobility Element, the Los Angeles County Bicycle Master Plan, and Step by Step. Impacts related to transportation are, for the most part, analyzed qualitatively and are focused on the Draft 2045 CAP’s potential to impact existing transportation facilities and circulation in Los Angeles County during construction and operation.

The impact of the Draft 2045 CAP on VMT, however, is analyzed quantitatively consistent with CEQA Guidelines Section 15064.3(b). To quantify the reductions in VMT that could be realized through implementation of the Draft 2045 CAP, a detailed analysis was conducted as documented in this EIR. The methodology for that analysis is provided in Draft EIR Appendix F. Briefly, the analysis considered the estimated benefits of the Draft 2045 CAP strategies for VMT reductions using a state-of-the-practice approach from the California Air Pollution Control Officers Association (CAPCOA) GHG Handbook (CAPCOA 2010). GHG reduction measures and implementing actions were first screened to identify those that could be quantified. Then, using the travel demand forecasting results from the SCAG regional travel demand model, Countywide VMT data were used, based on trip purpose and geography, to estimate the benefits (i.e., percentage reduction in VMT).

Based on the CAPCOA guidance, the following three measures would have a quantifiable impact on VMT; the corresponding five CAPCOA VMT reduction categories are shown in bullets below each measure:

- **Measure T1: Increase Density Near High-Quality Transit Areas (HQTAs)**
 - Increase residential density in HQTAs
 - Incentivizing and promoting development within HQTAs

- **Measure T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips**
 - Pedestrian and bikeway network improvements
- **Measure T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation**
 - County shuttles
 - Bus-only lanes, and transit signal prioritization on major transit thoroughfares

Descriptions of the Draft 2045 CAP measures listed above are provided in Section 2.6.3, *Local Measures and Implementing Actions*. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies.

3.15.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures and various implementing actions to reduce GHG emissions in unincorporated areas of the County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their size, or their specific characteristics because the location and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP*.)

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected*

Resource Areas, in the Executive Summary, identifies certain measures and actions relevant to this analysis of transportation-related impacts. These and other relevant measures and actions include Measure T1, Increase Density Near High-Quality Transit Areas; Measure T2, Develop Land Use Plans Addressing Jobs-Housing Balance & Increase Mixed Use; Measure T3, Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips; Measure T4, Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation; and Measure T5, Limit and Remove Parking Minimums as among the measures most relevant to the analysis of transportation impacts. Projects facilitated by Draft 2045 CAP measures and actions could cause impacts to transportation. The timeframe during which the implementation of these actions and measures could affect transportation by affecting the circulation system, VMT goals, roadway hazards and emergency access would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually causes impacts to transportation. If an impact occurs, it would occur immediately and either could be short-term (e.g., temporarily obstructed emergency access due to construction-related road closure) or last for a longer duration (e.g., until a plan or policy is amended or intersection improvements are implemented). The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific transportation impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would conflict with an applicable program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Impact 3.15-1: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would conflict with an applicable program plan, ordinance, or policy addressing the circulation system. (*Less than Significant with Mitigation Incorporated*)

An impact would be significant pursuant to criterion a) if the Project would conflict any of the transportation-related goals or policies identified in regional and local plans. For example, the General Plan includes a map of freeway and highway disaster routes, many of which cross through portions of the unincorporated County (County Planning 2015). The Draft 2045 CAP is a policy-level document that does not include any site-specific project designs or proposals that would have the potential to conflict with applicable plans, ordinances, or policies addressing the circulation system.

Any future projects that would be facilitated by Draft 2045 CAP measures and actions could conflict with applicable plans, ordinances, or policies related to the circulation system. The Draft 2045 CAP promotes mixed-use and transit-oriented development in city centers and near transit hubs consistent with existing land use plans. Overall, the Draft 2045 CAP Measures T1 through T5 (see descriptions above) would reduce Countywide VMT by facilitating projects that reduce VMT (and promote transit and active transportation, which is consistent with the transportation-related goals and policies of the SCAG RTP/SCS, Metro’s Short- and Long-Range Transportation Plans, Step by Step Los Angeles County, Los Angeles County Bicycle Master Plan, and Los Angeles County General Plan described above in Section 3.15.1.3, *Regulatory Setting*. Future utility-scale energy projects (solar, battery storage, substation, transmission) that could be facilitated by the Draft 2045 CAP measures and actions do not tend to generate high levels of VMT on a long-term basis because project-related trips are generated primarily during construction with very few workers on-site during project operation.³ Therefore, Project operations would result in a less-than-significant impact with respect to consistency with applicable program plans, ordinances or policies addressing the circulation system.

Draft 2045 CAP measures would promote the construction of minor changes to the existing streetscape, such as additional transit, pedestrian, and bicycle facilities to promote increased transit accessibility. Although specific details are unknown, construction of these facilities may temporarily disrupt traffic flows on area roadways by increasing the amount of heavy-duty construction vehicles sharing the roadways with normal vehicle traffic, disrupt alternative modes of transportation by blocking bicycle or pedestrian pathways or public transit lanes on area roadways, or result in lane closures that could delay the movement of emergency vehicles. Construction that involves changes to the existing streetscape could result in the temporary closure of pedestrian and/or bicycle facilities. Depending on the intensity and duration of such activities, construction of facilities facilitated by the Draft 2045 CAP could conflict with

³ See, for example, the Final EIR for the AV Solar Ranch One Project, which was projected to have 996 daily one-way trips at peak construction as compared to “very low trip generation associated with the Project’s operations workforce of 16 and occasional service/delivery trips” following construction (County Planning 2010).

applicable plans, ordinances, or policies related to safety and mobility for motorists, transit operators, bicyclists, and pedestrians, during the construction period. Furthermore, depending on their nature, projects that would be facilitated by the Draft 2045 CAP measures and actions also may require construction on major roadways or the closure of major roadways to facilitate construction activities. Should construction activities within major roadways or road closures be required to facilitate projects implementing Draft 2045 CAP measures and actions, such activities could obstruct major roadways and could hinder evacuation procedures. Therefore, projects facilitated by the Draft 2045 CAP measures and goals could result in a significant impact with respect to consistency with applicable program plans, ordinances, or policies addressing the circulation system, including an emergency response or evacuation plan; thus, impacts associated with criterion a) would be significant. Mitigation Measure 3.15-1 would reduce this impact. This mitigation measure would apply only if specific projects have potentially significant impacts.

Mitigation Measure 3.15-1, Traffic Control Plan: LA County shall require project applicants and construction contractors to coordinate with relevant LA County departments, transit providers, and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on transit service, roadway operations, emergency responders, pedestrian and bicycle facilities, and public safety in the surrounding area. (A traffic control plan may not be required for minor construction activities.) The project applicant shall be responsible for monitoring to ensure that the plan is effectively implemented by the construction contractor(s). Measures that may be employed throughout the course of the construction period include, but are not limited, to the following.

- Provide advance notice of lane and sidewalk closures, durations, and alternative routes to emergency service providers, motorists, bicyclists, and pedestrians.
- Provide clearly marked pedestrian detours if any sidewalk or pedestrian walkway closures are necessary.
- Provide clearly marked bicycle detours if heavily used bicycle routes must be closed, or if bicyclist safety may otherwise be comprised.
- Provide crossing-guards and/or flag persons as needed to avoid traffic conflicts and ensure pedestrian and bicyclist safety.
- Locate all stationary equipment as far as possible from areas used heavily by vehicles, bicyclists, and pedestrians.
- Use nonskid traffic plates over open trenches to reduce hazards.
- Implement traffic control measures to reduce vehicle travel delays through construction zones.
- Maintain acceptable response times and performance objectives for emergency response services.
- Avoid routing construction traffic through residential areas to the extent feasible.
- Prohibit mobilization and demobilization of heavy construction equipment during AM and PM peak traffic hours.

- Maintain access for driveways and private roads outside the immediate construction zone by using steel plates or temporary backfill, as necessary.
- Provide designated areas for construction worker parking wherever feasible to reduce use of parking on streets or in city center areas.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts because the Traffic Control Plan would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions.

Criterion b) Whether the Project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

Impact 3.15-2: Projects facilitated by the Draft 2045 CAP would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). (*Less-than-Significant Impact*)

Significance criteria in the County's *Transportation Impact Analysis Guidelines*, which are normally used to determine the significance of project-level transportation impacts in the unincorporated areas of the County, are focused on a project's potential to increase VMT above thresholds that are tied to regional averages. More specifically, individual projects that would result in VMT per capita or VMT per employee less than 16.8 percent below the existing or baseline regional average would result in a significant impact.⁴ In November 2022, the California Air Resources Board released the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) (CARB 2022), which lays out a path to achieve targets for carbon neutrality and reduce GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. As part of a larger set of strategies to meet this goal, the 2022 Scoping Plan calls for a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. Although the 2022 Scoping Plan provides a more aggressive VMT per capita reduction target than the previous plan upon which the County based its VMT significance thresholds (the 2017 Scoping Plan), the County has not (yet) made any adjustments to the VMT significance thresholds identified in the *Transportation Impact Analysis Guidelines*.

The VMT per capita and per employee thresholds noted above apply only to projects that would add people (i.e., employees, residents, visitors) that would generate "new" VMT by driving to or from a project site, as compared to baseline conditions. This "new" VMT would be subject to the County's 16.8 percent below the existing or baseline regional average VMT threshold. However, this threshold is not applicable to Draft 2045 CAP because the Draft 2045 CAP would not add new land uses or people that would generate new VMT; the Draft 2045 CAP accounts for transportation-related goals, policies, and programs already contained in the other planning documents described

⁴ As referenced by the VMT reduction goals discussed in California Air Resources Board, *2017 Scoping Plan—Identified VMT Reductions and Relationship to State Goals*, January 2019, Figure 3.

in Section 3.15.1.3, *Regulatory Setting*, and quantifies VMT reductions associated with the implementation of such goals, policies, and programs, including the Housing Element Update.

Furthermore, the analysis of potential VMT reductions conducted for the Project (Draft EIR, Appendix F) found that projects facilitated by the Draft 2045 CAP measures and actions would reduce overall Countywide VMT by approximately 4 percent, effectively reducing the regional average per capita VMT levels from which the County’s VMT threshold was derived. This 4 percent reduction is conservative: It is based only on specific implementing actions that can be quantified. Because of a lack of detail needed to provide detailed VMT estimates, other implementing actions are not included even though they would likely contribute to reduced VMT. Because the 16.8 percent reduction is what the California Air Resources Board had determined is needed to achieve the state’s long-term climate goals (or a higher reduction considering the guidance released in November 2022), and the Draft 2045 CAP would reduce VMT in a way that would contribute to this reduction, the Draft 2045 CAP would further the state’s goals to achieve reductions in GHG emissions as they relate to VMT.

Finally, CEQA Guidelines Section 15064.5 provides that land use or transportation projects that decrease VMT should be presumed to cause a less-than-significant impact; although the Draft 2045 CAP is neither a land use or transportation project, it does reduce Countywide VMT by approximately 4 percent, and the same rationale for the presumption would apply. Also, OPR’s Technical Advisory states that:

Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects. Streamlining transit and active transportation projects aligns with each of the three statutory goals contained in SB 743 by reducing GHG emissions, increasing multimodal transportation networks, and facilitating mixed use development.

Since many projects facilitated by the Draft 2045 CAP measures and actions that affect VMT essentially fall under OPR’s category of “transit and active transportation projects” or facilitate such projects, and this category of projects have been shown to reduce VMT, then it can be assumed that such projects would result in a less-than-significant transportation impact.

In summary, the Draft 2045 CAP would not be subject to the County’s VMT threshold because it would not introduce new land uses or people to the County that would generate new VMT; rather, the Draft 2045 CAP would support implementation of transportation-related goals, policies, and programs that are already contained in other planning documents. The implementation of such goals, policies, and programs was found to reduce Countywide VMT by approximately 4 percent as compared to baseline Countywide VMT, furthering the State’s goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation and, more specifically, to the GHG and VMT reduction targets identified in the California Air Resources Board 2017 Scoping Plan and 2022 Scoping Plan. Further, the Draft 2045 CAP’s 4 percent VMT reduction falls within the CEQA Guidelines presumption of a less-than-significant transportation impact, and many projects facilitated by the Draft 2045 CAP measures and actions that affect VMT essentially fall under

OPR’s category of “transit and active transportation projects,” or facilitate such projects. Therefore, a less-than-significant impact would occur with respect to CEQA Guidelines Section 15064.3(b).

Mitigation: None required.

Criterion c) Whether the Project would substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact 3.15-3: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (Less than Significant with Mitigation Incorporated)

An impact would be significant pursuant to criterion c) if a project would introduce any design features or activities that could result in hazardous conditions to motorists, transit operators, bicyclists, or pedestrians. As described in Impact 3.15-1, construction projects facilitated by the Draft 2045 CAP may temporarily disrupt traffic flows on area roadways by increasing the amount of heavy-duty construction vehicles sharing the roadways with normal vehicle traffic, disrupt alternative modes of transportation by blocking bicycle or pedestrian pathways or public transit lanes on area roadways, or result in lane closures that could delay the movement of emergency vehicles. During the construction period, the presence of construction or the increased amount of heavy-duty construction vehicles on roadways could substantially increase hazards due to incompatible uses with normal vehicles on roadways. This could result in a significant impact.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would result in less-than-significant impacts because the Traffic Control Plan would avoid or substantially reduce any hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated projects facilitated by the Draft 2045 CAP measures and actions.

3.15.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts to transportation, the geographic area of consideration (i.e., the cumulative impacts study area) is Countywide, inclusive of both incorporated and unincorporated areas of Los Angeles County. Cumulative impacts could result at various locations within this area from initiation of individual transportation-related projects facilitated by the Draft 2045 CAP measures and actions until completion of such implementing projects.

Criterion a)

Impact 3.15-4: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict with an applicable program plan, ordinance or policy addressing the circulation system. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Applicable programs, plans, ordinances and policies addressing the circulation system are summarized in Section 3.15.1, *Setting*. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with General Plan and municipal code requirements, have affected and can be expected to continue to affect the circulation system that, together with the Project's impacts, could create a significant cumulative impact relating to criterion a).

The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute a cumulatively considerable incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measure 3.15-1.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Less than Significant. With the implementation of the Traffic Control Plan required by this measure, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts to transportation resources over the span of the Draft 2045 CAP, would not be cumulatively considerable because the mitigation measure would avoid or substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions.

Criterion b)

Impact 3.15-5: The Project would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict or inconsistency with CEQA Guidelines Section 15064.3(b). (*Less-than-Significant Cumulative Impact*)

Per the County's *Transportation Impact Analysis Guidelines* (LA County DPW 2020), long-term or cumulative VMT impacts are determined through consistency with the SCAG RTP/SCS (SCAG 2020). The RTP/SCS demonstrates compliance with air quality conformity requirements and GHG reduction targets. Projects that are consistent with the RTP/SCS in terms of development location, density, and intensity are consistent with air pollution and GHG goals and would have a less-than-significant cumulative impact.

Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with the SCAG RTP/SCS (SCAG 2020), General Plan, and municipal code requirements have affected and can be expected to continue to affect the VMT so as to create a potentially significant cumulative VMT impact when added to the Project's impacts.

However, as discussed above in Section 3.15.2.3, *Project Impacts*, the Draft 2045 CAP would not introduce new land uses or people to the County that would generate new VMT. Furthermore, as documented in the VMT-reduction analysis (Draft EIR, Appendix F), projects facilitated by the Draft 2045 CAP measures and actions would actually reduce the overall Countywide VMT by approximately 4 percent compared to baseline conditions. Therefore, the Project's contribution to the potentially significant cumulative VMT impact would be less-than-cumulatively considerable.

Mitigation: None required.

Criterion c)

Impact 3.15-6: The Project, as a result of projects facilitated by the Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to a substantial increase in hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

The existing road network is described in Section 3.15.1.2, *Environmental Setting*. The number of traffic-related deaths and severe injuries that occur on unincorporated area roadways indicates that a significant cumulative impact exists regarding roadway hazards: "Traffic collisions are a major cause of death and severe injury throughout unincorporated Los Angeles County. From 2013-2017, on average one person lost their life every 5 days as a result of a traffic collision on unincorporated County roadways" (SCAG 2019). Traffic hazards are on the rise, with fatalities on unincorporated area roads having increased by nearly 28 percent between 2013 and 2017, resulting in 383 deaths and 1,648 other severe injuries during this time period (SCAG 2019). Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with the SCAG RTP/SCS (SCAG 2020), General Plan, Vision Zero (SCAG 2019) and municipal code requirements have introduced or could introduce new roadways, roadway improvements, or incompatible uses that could result in substantially increased hazards.

The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would contribute a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measure 3.15-1.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Less than Significant. With the implementation of the Traffic Control Plan required by this measure, the Project-specific, incremental contribution, taken into consideration with the cumulative projects' impacts to transportation over the span of the Draft 2045 CAP, would not be cumulatively considerable because the mitigation measure would avoid or substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by Draft 2045 CAP measures and actions.

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3.16 Tribal Cultural Resources

This section identifies and evaluates whether the Draft 2045 CAP would result in a significant impact on tribal cultural resources. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various substantive issues and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to tribal cultural resources relate to consultation pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18, recommend the inclusion in the EIR of feasible mitigation measures identified during consultation, and otherwise do not express concerns unless the implementation of the Draft 2045 CAP would facilitate future development of carbon reduction projects within tribal territory.

3.16.1 Setting

3.16.1.1 Study Area

The study area for this analysis of impacts on tribal cultural resources consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.16.1.2 Environmental Setting

Tribal Cultural Resources Definition

Tribal cultural resources, as defined in Public Resources Code Section 21074, include “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register) or included in the Los Angeles County Historical Landmarks Registry, or resources determined by the lead agency, in its discretion and supported by substantial evidence, to be significant. A cultural landscape that meets these criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. Historical resources, unique archaeological resources, or non-unique archaeological resources also may be tribal cultural resources if they meet these criteria.

Ethnographic Setting

The ethnographic setting for this analysis of impacts on tribal cultural resources is described in Section 3.6.1.2, *Environmental Setting*, in Section 3.6, *Cultural Resources*.

Native American Consultation

In letters dated November 13, 2019, the County submitted notification and requests to consult pursuant to AB 52 to five representatives of Native American tribes. AB 52 letters were sent via mail to the following California Native American tribes and individuals:

- Andrew Salas, Gabrieleño Band of Mission Indians–Kizh Nation
- Anthony Morales, Gabrieleno Tongva San Gabriel Band of Mission Indians
- Jairo Avila, Fernandeno Tataviam Band of Mission Indians
- Lee Clauss, San Manuel Band of Mission Indians
- Octavio Escobedo, Tejon Indian Tribe

No responses were received from any of these individuals pursuant to AB 52. Therefore, AB 52 tribal consultation is concluded pursuant to Public Resources Code Section 21080.3.2(b).

Copies of all AB 52 outreach communications are included in **Appendix G, *Tribal Cultural Resources***.

In letters dated November 13, 2019, the County also sent notification and requests to consult pursuant to Senate Bill (SB) 18 to 25 individuals and tribes. SB 18 letters were sent via mail to the following California Native American tribes and individuals:

- Andrew Salas, Gabrieleño Band of Mission Indians–Kizh Nation
- Anthony Morales, Gabrieleno Tongva San Gabriel Band of Mission Indians
- Charles Alvarez, Gabrielino–Tongva Tribe
- Donna Yocum, San Fernando Band of Mission Indians
- Fred Collins, Northern Chumash Tribal Council
- Gino Altamirano, Coastal Band of the Chumash Nation
- Jairo Avila, Fernandeno Tataviam Band of Mission Indians
- Julie Tumamait-Stenslie, Barbareno/Ventureno Band of Mission Indians
- Julio Quair, Chumash Council of Bakersfield
- Kenneth Kahn, Santa Ynez Band of Chumash Indians
- Lee Clauss, San Manuel Band of Mission Indians
- Gino Altamirano, Coastal Band of the Chumash Nation
- Mark Cochrane, Serrano Nation of Mission Indians
- Mark Vigil, San Luis Obispo County Chumash Council
- Matias Belardes, Juaneno Band of Mission Indians Acjachemen Nation

- Mona Tucker, yak tityu tityu yak tithini–Northern Chumash Tribe
- Robert Dorame, Gabrielino Tongva Indians of California Tribal Council
- Robert L. Gomez, Tubatulabals of Kern Valley
- Robert Martin, Morongo Band of Mission Indians
- Robert Robinson, Kern Valley Indian Community
- Rudy Ortega, Fernandeno Tataviam Band of Mission Indians
- Sandonne Goad, Gabrielino/Tongva Nation
- Sonia Johnston, Juaneno Band of Mission Indians
- Teresa Romero, Juaneno Band of Mission Indians Acjachemen Nation–Romero
- Wayne Walker, Serrano Nation of Mission Indians

Five responses were received from the individuals/organizations pursuant to SB 18. The Juaneño Band of Mission Indians Acjachemen Nation–Belardes, Morongo Band of Mission Indians, and San Manuel Band of Mission Indians indicated that they had no concerns regarding the Project and did not request consultation. The Santa Ynez Band of Chumash Indians also did not request consultation; however, they indicated that should supplementary literature reveal additional information, or if the scope of work were to change, they would like to be notified.

The Coastal Band of Chumash Indians requested consultation. In response, the County sent emails on November 21, 2019, and January 8, 2020, to schedule a consultation meeting with the Coastal Band of Chumash Indians, but no response was received. The County also sent a letter via regular mail and email on March 11, 2020, to once again schedule a consultation call with the Coastal Band of the Chumash Nation; however, no response was received.

Copies of all SB 18 outreach communications are included in Appendix G, *Tribal Cultural Resources*.

3.16.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Federal laws relevant to tribal consultation and tribal cultural resources include Section 106 of the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act of 1978, Executive Order (EO) 13007, and EO 13175. Relevant provisions of National Historic Preservation Act Section 106 and the Native American Graves Protection and Repatriation Act are summarized in Section 3.6.1.3, *Regulatory Setting*, in Section 3.6, *Cultural Resources*. The American Indian Religious Freedom Act of 1978, EO 13007, and EO 13175 are summarized below.

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act of 1978 (United States Code Title 42, Section 1996) makes it the policy of the United States to “protect and preserve for the American Indians their

inherent right to freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians.” These rights include but are not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremony and traditional rites.

Executive Order 13007

EO 13007, Indian Sacred Sites, was issued by President Bill Clinton on May 24, 1996. The order requires federal land management agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. It also requires federal agencies to develop procedures for reasonable notification of proposed actions or land management policies that may restrict access to or ceremonial use of, or adversely affect, sacred sites.

Under the order, *sacred site* is defined as “any specific, discrete, narrowly delineated location on federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site” (*Federal Register* Vol. 61, No. 104, page 26771, May 29, 1996).

Executive Order 13175

EO 13175, Consultation and Coordination with Indian Tribal Governments, was issued by President Clinton on November 6, 2000. The order directs federal agencies to establish regular and meaningful consultation and collaboration with tribal officials in the development of rules, policies, and guidance that have tribal implications, to strengthen the United States’ government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes.

Several executive memoranda have been issued reinforcing this order:

- In 2004, President George W. Bush issued a memorandum titled “Government-to-Government Relationship with Tribal Governments” that reaffirmed the existence and durability of the unique government-to-government relationship and commitment to working with federally recognized tribal governments on a government-to-government basis. The 2004 memorandum called upon all departments and agencies to adhere to these principles and work with tribal governments in a manner that cultivates mutual respect and fosters greater understanding to reinforce these principles.
- In 2009, President Barack Obama issued a memorandum titled “Memorandum on Tribal Consultation” in an effort to improve regular and meaningful consultation and collaboration with tribal officials. The memorandum directed agencies to submit detailed plans of action for implementing the policies and directives of EO 13175, and to provide annual reports regarding implementation of the plans along with recommendations for improving the plans and tribal consultation process.
- In 2021, President Joe Biden issued a memorandum titled “Tribal Consultation and Strengthening Nation-to-Nation Relationships,” reaffirming the policies announced in President Obama’s 2009 memorandum.

State Laws, Regulations, and Policies

Assembly Bill 52

AB 52 was approved by Governor Edmund G. Brown Jr. on September 25, 2014. The primary intent of AB 52 is to involve California Native American tribes early in the environmental review process and to obtain the information needed to locate and avoid tribal cultural resources.

Public Resources Code Section 21080.3.1(b) states that within 14 days of a decision by a lead agency to undertake a project, the lead agency must provide formal notification to the designated contact, or a tribal representative, of each California Native American tribe traditionally and culturally affiliated with the project's geographic area that has requested in writing to be informed by the lead agency. Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification, and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (Public Resources Code Sections 21080.3.1[d] and 21080.3.1[e]).

Public Resources Code Section 21080.3.2(a) identifies the following potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; and the significance of the project's impacts on the tribal cultural resources. If the California Native American tribe requests consultation regarding alternatives to the project, recommended mitigation measures, or significant impacts, the consultation shall include those topics. Consultation is considered concluded when either of the following scenarios occurs: (1) The parties agree to measures to mitigate or avoid a significant impact, if a significant impact exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (Public Resources Code Section 21080.3.2[b]).

If a California Native American tribe has requested consultation and has failed to provide comments to the lead agency, or has otherwise failed to engage in the consultation process, or if the lead agency has provided notification but the California Native American tribe has failed to request consultation within 30 days, then the lead agency may proceed to certify an EIR or adopt a mitigated negative declaration (Public Resources Code Sections 21082.3[d][2] and 21082.3[d][3]).

Senate Bill 18

SB 18 (Statutes of 2004, Chapter 905) requires local governments (such as the County) to consult with Native American tribes before making certain planning decisions, and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (OPR 2005).

The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use designations are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005. See Section 3.16.1.2, *Environmental Setting*, under "Native American Consultation," for details of the County's submittal of requests for consultation pursuant to SB 18.

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines*, local governments must fulfill the following contact and notification responsibilities (OPR 2005):

- Before adopting or amending a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission) of the opportunity to conduct consultations to preserve, or mitigate impacts on, cultural places located on land within the local government’s jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless they have agreed to a shorter time frame (Government Code Section 65352.3).
- Before adopting or substantially amending a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the Native American Heritage Commission contact list and have traditional lands located within the city’s or county’s jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local governments must send a notice of a public hearing, at least 10 days before the hearing, to any tribe that has filed a written request for such notice (Government Code Section 65092).

Government Code Sections 6254(r) and 6254.10

Provisions of the Government Code protect the confidentiality of archaeological sites to prevent unauthorized excavation, looting, or vandalism. The Government Code provides for the confidentiality of information related to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission” (Government Code Section 6254[r]). It specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency” (Government Code Section 6254.10).

Local Laws, Regulations, and Policies

Los Angeles County Historic Preservation Ordinance

The Historic Preservation Ordinance is summarized in Section 3.6.1.3, *Regulatory Setting*, in Section 3.6, *Cultural Resources*. The Historic Preservation Ordinance specifically mentions tribal cultural resources; however, sites, features, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed on the County Historical Landmarks Registry also would meet the definition of “tribal cultural resources” provided in Public Resources Code Section 21074(a)(1)(B).

3.16.2 Impact Analysis

3.16.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Draft 2045 CAP would result in a significant impact on tribal cultural resources if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- (a) Listed or eligible for listing in the California Register, or in the County Historical Landmarks Registry as defined in Public Resources Code Section 5020.1(k); or
- (b) A resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). In applying the criteria set forth in Public Resources Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

3.16.2.2 Methodology

Adoption of the Draft 2045 CAP's greenhouse gas (GHG) emissions reduction measures and actions would not cause adverse impacts on tribal cultural resources; however, projects facilitated by Draft 2045 CAP measures and actions could result in such impacts. Impacts on tribal cultural resources resulting from projects facilitated by Draft 2045 CAP measures and actions are evaluated at a programmatic level.

The following analysis is informed by the results of the County's AB 52 and SB 18 consultations with representatives of local Native American organizations. None of the five tribes notified pursuant to AB 52 responded, so the County considers AB 52 consultation as concluded. Five of the 24 tribes notified pursuant to SB 18 responded. Of these five tribes, three did not wish to consult; one requested follow-up notification should supplementary literature reveal additional information, or if the scope of work were to change; and the other requested consultation but did not respond to the County's attempts to schedule a consultation meeting. No tribal cultural resources were identified as a result of these consultations.

In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

3.16.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce GHG emissions in unincorporated areas of Los Angeles County. See also Section 2.6.2, *Local County Measures and Implementing Actions*, of Chapter 2, *Project Description*, which lists the proposed GHG reduction strategies and measures. None of the proposed measures or actions

indicate where specific projects would be constructed, their size, or their specific characteristics, because the locations and design specifics of projects that would facilitate the Draft 2045 CAP measures and actions are unknown at this time.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan’s land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, the impacts of implementing specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. The potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities, are evaluated qualitatively at a programmatic level. (For further explanation, see Draft EIR Section 3.1.3.6, *Future Projects Facilitated by the Draft 2045 CAP.*)

Consistent with CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures and actions, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of tribal cultural resources–related impacts. These and other relevant measures and actions include the renewable energy and related infrastructure projects that would be facilitated by Draft 2045 CAP measures and actions toward the following categories of strategies: (1) Decarbonization of the energy supply (e.g., Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; and Measure ES4, Increase Energy Resilience); (2) The electrification of vehicles (e.g., Measure T6, Increase Zero-Emission Vehicle Market Share; Measure T7, Electrify County Fleet Vehicles; Measure T8, Accelerate Freight Decarbonization; and Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment); and (3) The electrification of buildings (Strategy 5, Decarbonize Buildings). Renewable energy and related infrastructure projects facilitated by Draft 2045 CAP measures and actions could result in the development of more rural or open lands in areas of the unincorporated County where comparatively minimal ground disturbance has occurred. This would result in changes affecting tribal cultural resources, as defined in Public Resources Code Section 21074.

The timeframe during which the implementation of these actions and measures would affect tribal cultural resources would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually impacts one or more tribal cultural resources. If an impact occurs, it would occur immediately and could be long-

term. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific tribal cultural resources-related impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or

Criterion b) Whether the Project would cause a substantial adverse change in the significance of a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). In applying the criteria set forth in Public Resources Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact 3.16-1: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a tribal cultural resource, or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). (*Less than Significant with Mitigation Incorporated*)

The County has not made any discretionary tribal cultural resource determinations at the project level. Future projects facilitated by Draft 2045 CAP measures and actions would involve structural improvements and/or ground-disturbing activities that, depending on their locations,

could result in direct or indirect substantial adverse changes to the significance of a tribal cultural resource. For example, such changes could result from the following:

- Increased residential density/increased mixed use (Measures T1 and T2).
- Bicycle and pedestrian infrastructure (Measures T3 and T4).
- Construction of electric vehicle charging infrastructure (Measure T6).
- Construction of renewable energy projects and infrastructure (e.g., utility-scale solar energy generation projects and battery storage, substation, and transmission infrastructure) in the Antelope Valley to support procurement of zero-carbon electricity (Measure ES2).
- Construction of new solar power generation on new and existing development (Measure ES3).
- Expansion of energy storage and microgrids (Measure ES4).
- Tree planting at new development, County facilities, and public parks, and along rights-of-way in both urbanized and rural areas (Measure A3).
- New organics waste collection and processing facilities, including anaerobic digestion (Measure W2).

Future projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with applicable federal, state, and local regulations and, as appropriate, to undergo the County's discretionary review process, including completion of subsequent project-level planning and environmental review under CEQA. These projects would similarly require compliance with AB 52 to ensure that tribal cultural resources are properly identified. Nonetheless, such projects could result in significant impacts on sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe qualifying as tribal cultural resources. Thus, this impact on tribal cultural resources would be significant.

However, implementation of Mitigation Measure 3.16-1 would reduce impacts to a less-than-significant level. For archaeological resources that could also meet the definition of tribal cultural resources, Mitigation Measures 3.6-2 through 3.6-6 (found in Section 3.6, *Cultural Resources*) would be implemented to further reduce impacts. Mitigation measures would apply only if specific projects have potentially significant impacts.

Mitigation: Implement Mitigation Measures 3.6-2 through 3.6-6.

Mitigation Measure 3.16-1: AB 52 Consultation. Consistent with AB 52, before the release of a negative declaration, mitigated negative declaration, or EIR, the County shall initiate consultation within 14 days of a decision to undertake a project facilitated by Draft 2045 CAP measures or actions. The County shall provide formal notification to the designated contact of, or a tribal representative of, each traditionally and culturally affiliated California Native American tribe that has requested notice. The County shall begin the consultation process within 30 days after receiving a California Native American tribe's request for consultation.

If tribal cultural resources are identified, the County shall implement mitigation measures that would avoid or substantially lessen significant impacts on such resources, including but not limited to the measures recommended in Public Resources Code Section 21084.3, or shall implement alternatives that would avoid significant impacts on the tribal cultural resources. Such measures shall be implemented in consultation with the California Native American tribe.

Significance after Mitigation: Implementation of Mitigation Measure 3.16-1 would reduce impacts of the Draft 2045 CAP on tribal cultural resources to a less-than-significant level. This measure is required to reduce significant impacts on tribal cultural resources resulting from projects facilitated by the Draft 2045 CAP measures and actions by avoiding or minimizing impacts. Mitigation Measure 3.16-1 requires the County to consult with California Native American tribes pursuant to AB 52 to identify tribal cultural resources that could be affected by a project facilitated by the Draft 2045 CAP. Further, if a tribal cultural resource is identified as a result of consultation, the County must implement mitigation measures or consider alternatives capable of avoiding or minimizing significant impacts on the tribal cultural resource. Additionally, Mitigation Measures 3.6-2 through 3.6-6 (identified in Section 3.6, *Cultural Resources*) require archaeological monitoring and preparation of a plan for the treatment of archaeological resources, including those that may also qualify as tribal cultural resources, which would further reduce the impact.

3.16.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts on tribal cultural resources, the geographic area of consideration (i.e., the study area for cumulative impacts) consists of Los Angeles County, inclusive of both the incorporated cities and the unincorporated areas. This Countywide geographic scope of analysis is appropriate for the analysis of tribal cultural resources because the types of resources within this area are similar in nature and origin, and share a common heritage. Cumulative impacts could result at various locations within this area from the initiation of projects facilitated by Draft 2045 CAP measures and actions, and such impacts could be perpetual.

Impact 3.16-2: The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). (*Less than Significant with Mitigation Incorporated*)

Los Angeles County's long history, past, present, and reasonably foreseeable future projects—including projects implemented in accordance with the *Los Angeles County General Plan 2035* and municipal code requirements—could combine with projects facilitated by Draft 2045 CAP measures and actions to affect the significance of tribal cultural resources Countywide. For example, project-related ground disturbance could occur at the locations of unanticipated discoveries of tribal cultural resources, affecting their significance. Cumulative impacts on tribal cultural resources could be significant.

The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable incremental contribution to this significant cumulative impact; however, the contribution would be mitigated to a level that would be less than cumulatively considerable (i.e., less-than-significant cumulative impact) with the implementation of Mitigation Measure 3.16-1 (identified above) and Mitigation Measures 3.6-2 through 3.6-6 (identified in Section 3.6, *Cultural Resources*).

Mitigation Measures: Implement Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6.

Significance After Mitigation: Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6 would require the County to initiate consultation (within 14 days of a decision to undertake a project facilitated by Draft 2045 CAP measures or actions) with California Native American tribes to avoid or lessen impacts on tribal cultural resources, and would require archaeological monitoring and preparation of a plan for the treatment of such resources. As a result, with implementation of these measures, the Project-specific, incremental contribution, considered with the cumulative projects' impacts on tribal cultural resources over the span of the Draft 2045 CAP, would not be cumulatively considerable, and therefore would be less than significant.

3.17 Utilities and Service Systems

This section identifies and evaluates issues related to utilities and service systems to determine whether the Project would result in a significant impact related to water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities; water supplies; wastewater treatment; or solid waste. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions relating to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to utilities and service systems suggest that future renewable energy projects facilitated by Draft 2045 CAP measures and actions would cause impacts on utilities including the potential for increased solid waste generation that could exceed existing solid waste disposal capacity.

3.17.1 Setting

3.17.1.1 Study Area

The study area for this analysis of impacts on utilities and service systems consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated area of Los Angeles County. See Figure 2-1, *Map of Unincorporated Los Angeles County*, in Chapter 2.

3.17.1.2 Environmental Setting

Wastewater Treatment Providers

Multiple wastewater treatment providers serve the unincorporated areas of the County. The Los Angeles County Sanitation Districts provide wastewater treatment to many unincorporated areas, as well as to 78 cities in Los Angeles County. The City of Los Angeles Bureau of Sanitation provides wastewater treatment to several unincorporated areas in and adjacent to the city of Los Angeles, including unincorporated areas west of the city of Los Angeles in the Santa Susana Mountains, Simi Hills, and Santa Monica Mountains; Marina del Rey; and La Crescenta–Montrose. The Las Virgenes Municipal Water District operates the Tapia Water Reclamation Facility in the unincorporated areas within the Santa Monica Mountains Planning Area. Finally, the Los Angeles County Department of Public Works operates three wastewater treatment plants in the city of Malibu that also serve nearby unincorporated areas (County Planning 2021).

Wastewater Treatment Facilities

The Los Angeles County Department of Public Works Consolidated Sewer Maintenance District operates and maintains four treatment plants and 153 pump stations throughout the County. Wastewater treatment plants treat wastewater by removing solid waste and other contaminants until it has reached a level that meets state and federal water quality standards. Once wastewater has been treated, it is either reused or distributed back into local water bodies such as the Los

Angeles River, Santa Monica Bay, or Los Angeles Harbor. The four treatment plants operated by the Consolidated Sewer Maintenance District are Malibu Mesa Wastewater Reclamation Plant, Malibu Water Pollution Control Plant, Trancas Water Pollution Control Plant, and Lake Hughes Community Wastewater Treatment Facility (Los Angeles County Department of Public Works 2022a).

Storm Water Management

Los Angeles County's stormwater infrastructure includes 2,919 miles of underground storm drains, 80,000 catch basins, 162 debris dams, 487 miles of open channels, and 14 major dams and reservoirs, making the districts' flood protection and water conservation system one of the largest in the world. The Los Angeles County Basin is jointly managed by the Los Angeles County Flood Control District and the U.S. Army Corps of Engineers, serving Los Angeles County's 88 cities. LA County's stormwater pollution prevention efforts are designed to protect and improve the quality of recreational waters and potable water resources, along with beneficial uses of other water resources, to comply with federal, state, and local directives, while fostering a safe and efficient drainage system (Los Angeles County Department of Public Works 2022b).

Electricity and Natural Gas Service

Electricity and natural gas service providers are described in Section 3.7, *Energy*.

Telecommunications

Telecommunications infrastructure includes small cell facilities and macro towers. Small cell facilities are located on existing or proposed vertical infrastructure, such as streetlights, utility poles, and traffic signal poles in the public right-of-way. *Macro towers* are large independent structures with the single purpose of supporting telecommunications. These tend to be large mono-towers that are either in the public right-of-way or are on private or public property. Numerous telecommunications providers operate within Los Angeles County and either share infrastructure or own their own facilities to provide cellular service Countywide.

Water

Water supplies in the County are accessed from both local and imported sources. Local supplies include groundwater, surface water, and recycled water. Recycled water is produced at numerous wastewater treatment plants Countywide, including by the City of Los Angeles, the County Sanitation Districts, and multiple municipalities. Recycled water is used for nonpotable irrigation purposes as well as increasingly for potable reuse. Stormwater capture is increasing in Los Angeles County in response to water quality regulations and will continue to increase in the future as more stormwater capture projects are constructed. Groundwater resources are extensive and provide an essential storage resource for local runoff as well as imported water replenishment. These local supplies can supply as much as 50 percent of the County's water demand in some years (Metropolitan Water District of Southern California 2016).

Imported water supplies are conveyed to Los Angeles County in three essential aqueduct systems: the City of Los Angeles Department of Water and Power's Los Angeles Aqueduct, Metropolitan Water District of Southern California's (MWD's) Colorado River Aqueduct, and the California

Department of Water Resources' (DWR's) California Aqueduct. The Los Angeles Aqueduct conveys water from the eastern Sierra Nevada. The California Aqueduct provides supplies from Northern California via the Feather River in the northern Sierra Nevada, down into the Sacramento River and then across the Sacramento–San Joaquin Delta. The Colorado River Aqueduct originates at Lake Havasu on the Colorado River through the Colorado River Aqueduct to its terminal reservoir at Lake Mathews in Riverside County. MWD, Little Rock Creek Irrigation District, Palmdale Water District, Santa Clarita Valley Water District, and the Antelope Valley East Kern Water District are each State Water Contractors with access to water conveyed from Northern California in the California Aqueduct. These water wholesale agencies supply water to local retail agencies including LA County, municipalities, and water special districts.

Six Los Angeles County waterworks districts provide retail water supplies in unincorporated areas of the County (Los Angeles County Department of Public Works 2022c):

- District 21, Kagel Canyon, currently serves approximately 550 people through 250 metered connections.
- District 29, Malibu and Topanga, currently serves approximately 22,300 people through 7,500 metered connections.
- The Marina del Rey Water System currently serves approximately 8,800 people through 300 metered connections.
- District 36, Val Verde, currently serves approximately 5,200 people through 1,350 metered connections.
- District 37, Acton, currently serves approximately 6,500 people through 1,400 metered connections.
- District 40, Antelope Valley, currently serves approximately 208,000 people through 57,000 metered connections.

3.17.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act

The Clean Water Act is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and nonregulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff.

Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters of the United States. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based on biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. In Los Angeles County, the State Water Resources Control Board (SWRCB) and the Los Angeles Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the federal Clean Water Act.

In 1972, the Clean Water Act was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the Clean Water Act added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges, including discharges associated with construction activities, under the NPDES program.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) ensures the quality of drinking water. The law requires actions to protect drinking water and its sources (rivers, lakes, reservoirs, springs, and groundwater wells) and applies to public water systems serving 25 or more people. It authorizes the U.S. Environmental Protection Agency (USEPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants. In addition, it oversees the states, municipalities, and water suppliers that implement the standards.

USEPA standards are developed as a *Maximum Contaminant Level (MCL)* for each chemical or microbe. The MCL is the concentration that is not anticipated to produce adverse health effects after a lifetime of exposure, based on toxicity data and risk assessment principles. USEPA's goal in setting MCLs is to assure that even small violations for a period of time do not pose significant risk to the public's health over the long run. *National Primary Drinking Water Regulations* are legally enforceable standards that limit the levels of contaminants in drinking water supplied by public water systems. Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. USEPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. The RCRA amended the Solid Waste Disposal Act of 1965 and set national goals for all of the following:

- Protecting human health and the natural environment from the potential hazards of waste disposal.
- Conserving energy and protecting natural resources.
- Reducing the amount of waste generated, through source reduction and recycling.
- Ensuring the management of waste in an environmentally sound manner.

The RCRA is now most widely known for the regulations that set standards for the treatment, storage, and disposal of hazardous waste in the United States. USEPA published waste management regulations, which are codified in Title 40 of the Code of Federal Regulations at Parts 239–282. Most states have enacted laws and created regulations that are at least as stringent as the federal regulations.

State Laws, Regulations, and Policies

California Water Code

The California Water Code, a section of the California Code of Regulations, establishes the governing laws pertaining to all aspects of water management in California.

State Water Resources Control Board

The SWRCB was created by the California Legislature in 1967 with the mission of ensuring the highest reasonable quality for waters of the state, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB has authority over water allocation by administering and regulating appropriative water right permits and licenses, as per the Water Code, which require that all uses of water be “reasonable and beneficial,” which includes municipal and industrial uses, irrigation, hydroelectric generation, and livestock watering.

In 1970, the Porter-Cologne Water Quality Control Act created nine RWQCBs that develop and enforce water quality objectives of the state and implementation plans within their region. The RWQCBs oversee various programs that protect surface water and groundwater quality, and enforce the federal NPDES Wastewater Program, and NPDES Stormwater Program. The RWQCBs are also responsible for developing and implementing total maximum daily loads for impaired water bodies.

Urban Water Management Planning Act

The Urban Water Management Planning Act was enacted in 1983 and codified as Water Code Sections 10610–10657. This law requires “every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet per year (afy), to prepare and adopt, in accordance with prescribed requirements, an urban water management plan.” Urban water suppliers must file urban water management plans (UWMPs) with DWR every five years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities.

A number of requirements regarding preparation of water management plans have been added to the Urban Water Management Planning Act. These additional requirements include: (1) a narrative description of water demand measures implemented over the past five years and future measures planning to meet 20 percent demand reduction targets by 2020; (2) a standard methodology of calculating system water loss; (3) a voluntary reporting of passive conservation savings, energy intensity, and climate change; and (4) an analysis of water features that are artificially supplied with water. If groundwater is identified as a water source available to the supplier, the UWMP must include the following additional information: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; (3) a description and analysis of groundwater use in the past five years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

Senate Bill X7-7, Water Conservation Act of 2009

Senate Bill (SB) X7-7, the Water Conservation Act of 2009 (Water Code Section 10608) requires all water suppliers to increase water use efficiency. Enacted in 2009, this legislation set an overall

goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State of California was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Monthly statewide savings of potable water reached 25.1 percent in February 2017, as compared to potable water use in February 2013. Cumulative statewide savings from June 2015 through February 2017 were estimated at 22.5 percent. Following a multiyear drought and improvements to hydrologic conditions, statewide potable water savings reached 14.7 percent in August 2017, as compared to potable water use in August 2013.

Senate Bill 610 and Senate Bill 221

Two state laws addressing the assessment of water supply necessary to serve projects—SB 610 and SB 221—became effective on January 1, 2002. SB 610 (Water Code Section 10910 et seq.) describes requirements for water supply assessments (WSAs) applicable to the CEQA process and, defines the role UWMPs play in the WSA process. Under SB 610, for a proposed project subject to CEQA that meets specific criteria, the water supplier must prepare a WSA that determines whether the water supplier has sufficient water resources to serve the projected water demand associated with the project. SB 610 provides specific guidance regarding how future supplies are to be calculated where an applicable UWMP has been prepared. Specifically, a WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' water deliveries received by the public water system. In addition, the WSA must address water supplies over a 20-year period and consider normal, single-dry-year, and multiple-dry-year conditions.

The WSA must be approved by the public water supplier serving the project at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

In contrast to SB 610 WSAs, which are prepared at the beginning of the planning process for qualifying projects, SB 221 requires a water supply verification for large subdivision projects at the end of the planning process. Under SB 221 (Government Code Sections 11010, 65867.5, 66455.3, and 66473.7), a water supplier must prepare and adopt a water supply verification indicating that sufficient water supply is available to serve a proposed subdivision, or the local agency must make a specified finding that sufficient water supplies are or will be available before completion of a project as part of the conditions for the approval of a final subdivision map. SB 221 specifically applies to residential subdivisions of 500 units or more.

State of Drought Emergency Declaration and Emergency Regulation

In response to California's persistent drought conditions, Governor Gavin Newsom proclaimed a drought state of emergency for all counties in California and, on October 19, 2021, issued a proclamation urging all Californians to intensify their water conservation efforts to ensure all Californians were taking sufficient actions to conserve water and preserve the state's water supply (State of California Executive Department 2021). The SWRCB adopted an emergency drought regulation, which became effective on January 18, 2022 (SWRCB 2022). The emergency regulation will remain in effect for one year from the effective date (i.e., until January 18, 2023) unless the SWRCB acts to end, modify, or readopt it (State of California 2022). Severe drought

conditions persist. On March 28, 2022, Governor Newsom issued Executive Order N-7-22, which noted that “early rains in October and December 2021 gave way to the driest January and February in recorded history for the watersheds that provide much of California’s water supply” and that this (coupled with the absence of significant rains in March) has “required the Department of Water Resources to reduce anticipated deliveries from the State Water Project to 5 percent of requested supplies.” Executive Order N-7-22 further proclaims that “to protect public health and safety, it is critical the State take certain immediate actions without undue delay to prepare for and mitigate the effects of the drought conditions.”

Sustainable Groundwater Management Act

On September 16, 2014, Governor Edmund G. Brown Jr. signed a three-bill package¹ known as the Sustainable Groundwater Management Act (SGMA) that creates a framework for local agencies to achieve sustainable, local groundwater management within 20 years through groundwater sustainability agencies (GSAs). In September 2015, Governor Brown signed SB 13, which made various technical, clarifying changes to the SGMA, including its requirements for GSA formation, the process for intervention by the SWRCB if no responsible agency is specified for a basin, guidelines for high- and medium-priority basins, and participation by mutual water companies in a GSA.

The formation of GSAs for all basins designated as high- and medium-priority groundwater basins was required by July 1, 2017. The LA County Department of Regional Planning represents LA County on two GSAs: the Santa Clarita Valley GSA and Santa Monica Basin GSA. Each GSA for these high- and medium-priority basins is charged with development of a groundwater sustainability plan (GSP) that details how sustainable groundwater management will be achieved within 20 years of GSP implementation. The GSP is a tool used to help the GSA sustainably manage the basin. Final GSPs were approved for the Santa Clarita Valley and Santa Monica Basin GSAs in January 2022 (Santa Clarita Valley GSA 2022; Santa Monica Basin GSA 2022).

Los Angeles County overlies several adjudicated groundwater basins: the Upper Los Angeles River Area Basin, the Antelope Valley Groundwater Basin, the Central and West Coast groundwater basins, and the San Gabriel Valley Groundwater Basin. Each of these adjudicated groundwater basins is exempt from the SGMA with limited exceptions—for example, reporting and monitoring.

Assembly Bill 939

AB 939, the Integrated Solid Waste Management Act of 1989 (Public Resources Code 40050 et seq.), requires local agencies to create waste management practices that focus on source reduction, recycling and composting, and environmentally safe land disposal. AB 939 also requires counties to provide a 15-year solid waste disposal plan, reflecting sufficient disposal capacity for all jurisdictions.

¹ The three bills that make up the SGMA are AB 1739 by Assemblymember Roger Dickinson, SB 1319, and SB 1168 by Senator Fran Pavley.

Regional and Local Laws, Regulations, and Policies

Metropolitan Water District of Southern California 2020 Urban Water Management Plan

MWD's 2020 UWMP addresses the future of MWD's water supplies and demand through the year 2045 (MWD 2021). Evaluations are prepared for average-year conditions, single-dry-year conditions, and multiple-dry-year conditions. The analysis for multiple-dry-year conditions (i.e., under the most challenging weather conditions such as drought and service interruptions caused by natural disasters) is presented in Table 2-5 of the 2020 UWMP (MWD 2021). The analysis in the 2020 UWMP concluded that reliable water resources would be continuously available to meet demand through 2045. As stated in the 2020 UWMP, the projected 2045 demand for water during a multiple-year drought is 1,564,000 afy, whereas the expected and projected 2045 supply is 2,239,000 afy based on current programs. (MWD 2021; Table 2-5.)

MWD has established water surplus and drought management and water supply allocation plans. These comprehensive plans identify the stages at which actions would be undertaken to address up to a 50 percent reduction in its water supplies and a catastrophic interruption in water supplies. MWD has also developed an emergency storage requirement to mitigate the effects of a potential interruption in water supplies caused by a catastrophic occurrence in the Southern California region, and is working with the state to implement a comprehensive improvement plan addressing catastrophic occurrences that could occur outside of Southern California. MWD is also working with the state on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Sacramento–San Joaquin Delta that would cause levee failure and disruption of State Water Project deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct, State Water Project, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

Los Angeles County General Plan 2035

Public Services and Facilities Element

The following goals and policies from the General Plan are applicable to utilities and service systems.

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.

Policy PS/F 1.1: Discourage development in areas without adequate public services and facilities.

Policy PS/F 1.2: Ensure that adequate services and facilities are provided in conjunction with development through phasing or other mechanisms.

Policy PS/F 1.3: Ensure coordinated service provision through collaboration between County departments and service providers.

Policy PS/F 1.4: Ensure the adequate maintenance of infrastructure.

Policy PS/F 1.5: Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development.

Policy PS/F 1.6: Support multi-faceted public facility expansion efforts, such as substations, mobile units, and satellite offices.

Policy PS/F 1.7: Consider resource preservation in the planning of public facilities.

Goal PS/F 2: Increased water conservation efforts.

Policy PS/F 2.1: Support water conservation measures.

Policy PS/F 2.2: Support educational outreach efforts that discourage wasteful water consumption.

Goal PS/F 3: Increased local water supplies through the use of new technologies.

Policy PS/F 3.1: Increase the supply of water through the development of new sources, such as recycled water, gray water, and rainwater harvesting.

Policy PS/F 3.2: Support the increased production, distribution and use of recycled water, gray water, and rainwater harvesting to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes and other beneficial uses.

Goal PS/F 4: Reliable sewer and urban runoff conveyance treatment systems.

Policy PS/F 4.1: Encourage the planning and continued development of efficient countywide sewer conveyance treatment systems.

Policy PS/F 4.2: Support capital improvement plans to improve aging and deficient wastewater systems, particularly in areas where the General Plan encourages development, such as TODs [Transit Oriented Developments].

Policy PS/F 4.3: Ensure the proper design of sewage treatment and disposal facilities, especially in landslide, hillside, and other hazard areas.

Policy PS/F 4.4: Evaluate the potential for treating stormwater runoff in wastewater management systems or through other similar systems and methods.

Goal PS/F 5: Adequate disposal capacity and minimal waste and pollution.

Policy PS/F 5.1: Maintain an efficient, safe and responsive waste management system that reduces waste while protecting the health and safety of the public.

Policy PS/F 5.2: Ensure adequate disposal capacity by providing for environmentally sound and technically feasible development of solid waste management facilities, such as landfills and transfer/processing facilities.

Policy PS/F 5.3: Discourage incompatible land uses near or adjacent to solid waste disposal facilities identified in the Countywide Integrated Waste Management Plan.

Policy PS/F 5.4: Encourage solid waste management facilities that utilize conversion and other alternative technologies and waste to energy facilities.

Policy PS/F 5.5: Reduce the County's waste stream by minimizing waste generation and enhancing diversion.

Policy PS/F 5.6: Encourage the use and procurement of recyclable and biodegradable materials.

Policy PS/F 5.7: Encourage the recycling of construction and demolition debris generated by public and private projects.

Policy PS/F 5.8: Ensure adequate and regular waste and recycling collection services.

Policy PS/F 5.9: Encourage the availability of trash and recyclables containers in new developments, public streets, and large venues.

Goal PS/F 6: A County with adequate public utilities.

Policy PS/F 6.1: Ensure efficient and cost-effective utilities that serve existing and future needs.

Policy PS/F 6.2: Improve existing wired and wireless telecommunications infrastructure.

Policy PS/F 6.3: Expand access to wireless technology networks, while minimizing visual impacts through co-location and design

Policy PS/F 6.4: Protect and enhance utility facilities to maintain the safety, reliability, integrity and security of utility services.

Policy PS/F 6.5: Encourage the use of renewable energy sources in utility and telecommunications networks.

Policy PS/F 6.6: Encourage the construction of utilities underground, where feasible.

Policy PS/F 6.7: Discourage above-ground electrical distribution and transmission lines in hazard areas.

Policy PS/F 6.8: Encourage projects that incorporate onsite renewable energy systems.

Policy PS/F 6.9: Support the prohibition of public access within, and the limitation of access in areas adjacent to natural gas storage facilities and oil and gas production and processing facilities to minimize trespass and ensure security.

Policy PS/F 6.10: Encourage utility siting to be localized and decentralized to reduce impacts; reduce transmission losses; promote local conservation by connecting users to their systems more directly; and reduce system malfunctions.

General Plan Implementation Programs

PS/F-1 Planning Area Capital Improvement Plans: DRP [LA County Department of Regional Planning] and DPW [LA County Department of Public Works] jointly secure sources of funding and set priorities for preparing studies to assess infrastructure needs for the 11 Planning Areas. Once funding has been secured and priorities have been set, a Capital Improvement Plan is prepared for each of the 11 Planning Areas. Each Capital Improvement Plan shall include the following as needed:

- Sewer Capacity Study
- Transportation System Capacity Study
- Waste Management Study
- Stormwater System Study
- Public Water System Study
- List of necessary infrastructure improvements
- Implementation Program
- Financing Plan

As applicable, studies related to water, sewer, traffic, and stormwater management specifically address the needs of the unincorporated disadvantaged communities, including fringe and legacy communities defined in the Land Use Element.

Telecommunication Ordinances

LA County reviews applications and issues approvals for all wireless facilities in the public right-of-way. The Board of Supervisors adopted Ordinance No. 2023-0001 on January 10, 2023, covering the installation of new telecommunications facilities. The ordinance amended both Title 16 (Highways) and Title 22 (Planning and Zoning) of the LA County Code, which establish regulations, development standards, and review procedures for wireless facilities. Title 16 regulates the public right-of-way, which include streets, sidewalks, alleys, and highways, but are summarily referred to as *highways*. Title 22 regulates private and public property outside the public right-of-way.

The ordinance and associated amendments would establish regulations for different types of wireless facilities based on their locations. Title 16 would address small cell facilities located on existing or proposed vertical infrastructure—such as streetlights, utility poles, and traffic signal poles—in the public right-of-way. Title 22 would address macro towers in the public right-of-way and small cell facilities and all other wireless facilities on private and public property. The ordinance took effect February 9, 2023.

3.17.2 Impact Analysis

3.17.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

The Project would have a significant impact on utilities and service systems if it would:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects;
- b) Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- e) Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Based on the analysis documents in the initial study (Appendix A2), it was concluded that implementation of the Draft 2045 CAP would result in no impact with respect to criterion e),

either directly or as a result of future projects facilitated by Draft 2045 CAP measures and actions; requisite compliance with existing laws governing the management and reduction of solid waste would ensure that no significant impact would result. Accordingly, criterion e) was not carried forward for more detailed review.

3.17.2.2 Methodology

The evaluation of impacts related to the provision of wastewater and solid waste services is based on a review of existing policies, documents, and studies that address both services in the County. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify environmental impacts based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

3.17.2.3 Project Impacts

The Draft 2045 CAP identifies 10 strategies, 25 measures, and various implementing actions to reduce greenhouse gas emissions in unincorporated areas of the County. See also Section 2.6.2 of Chapter 2, *Project Description*, which lists the proposed greenhouse gas emissions reduction strategies and measures. None of the proposed measures or actions indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of the individual projects that could be facilitated by Draft 2045 CAP measures and actions. However, impacts of the implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale, ground-mounted solar photovoltaic projects, and associated energy storage and distribution facilities are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the impacts of implementing these measures and actions that could result, rather than the project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of utilities and service systems-related impacts. These and other relevant measures and actions include: Action T6.7 (increase the use of green hydrogen vehicles) and Action T9.2 (identify types of zero-emission vehicle and green

hydrogen equipment that are commercially available and require the use of these equipment on all new projects) because the hydrogen generation that would be needed can be a water-intensive process; and Measure W2 (Increase Organic Waste Diversion) and associated Actions W2.1, W2.2, W2.3, W2.4, and W2.5 because they relate to landfill diversion; and Measure E5 (Increased Use of Recycled Water and Gray Water Systems) and associated Actions E5.1, E5.2, E5.3, and E5.5 because they relate to the development of new water recycling and direct potable reuse facilities; and Measure E6 (Reduce Indoor and Outdoor Water Consumption) and associated Actions E6.1 and E6.4 because they relate to water conservation.

The timeframe during which the implementation of these actions and measures would cause impacts related to utilities would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*) and whether their implementation actually would result in the need for new or expanded utilities, insufficient water supplies, or exceed wastewater treatment or solid waste infrastructure capacity for one or more of the specified reasons. If an impact occurs, it would occur immediately and could be short term (e.g., construction of a pipeline) or continue in effect for the long term (e.g., construction and operation of new wastewater treatment system). The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Specific utilities and service systems impacts of implementing Draft CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), LA County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.

Impact 3.17-1: Projects facilitated by the Draft 2045 CAP would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. (*Significant and Unavoidable*)

The Draft 2045 CAP is a policy document that would support development already allowed under the General Plan’s land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly result in new or expanded facilities. However, projects facilitated by Draft 2045 CAP measures and actions could promote the construction of new facilities to achieve goals for water conservation and recycling, energy efficiency, renewable energy, and waste diversion. Some of the measures may result in retrofitting, plumbing, and electrical modifications in existing buildings or the installation of new features such as rooftop solar or water recycling systems (Measures E1, E4, E5, and E6). In general, projects facilitated by Draft 2045 CAP measures and actions are expected to result in beneficial environmental impacts on utilities by reducing water demand, reducing demand on water recycling facilities, and reducing demand for natural gas and electrical power through energy efficiency measures and measures to achieve low-carbon energy use (Measures ES1 and Measures E1 through E4).

Measure E5 encourages the development of gray water systems in new developments, but does not require their installation. This allows for flexibility in areas where diverting gray water may adversely affect septic systems or package treatment facilities. Septic systems would continue to be permitted through LA County, ensuring that any new gray water systems could be installed to be compatible with permitted septic systems. Septic systems in new residential development would be designed to operate with dual waste piping.

Measure E6 and associated Action E6.1 have been modified and no longer require a net-zero water ordinance. Instead, this measure will develop a water conservation ordinance for new development. Water conservation measures would reduce the water demands of new developments and thereby reduce impacts of water supply development and conveyance.

As described above, the Draft 2045 CAP would result in primarily beneficial impacts with regard to the use of water, wastewater treatment, electric power, natural gas, and stormwater drainage. However, the Draft 2045 CAP could promote the construction of new facilities such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, new water recycling facilities, electric vehicle charging stations, and composting facilities, which could result in environmental impacts.

Future projects facilitated by Draft 2045 CAP measures and actions would be evaluated on an individual basis once details are known. However, as described throughout this EIR, construction

of some utility projects, in particular utility-scale energy projects, could result in significant impacts on environmental resources including air quality, biological resources, cultural resources, water quality, transportation, and noise.

Mitigation measures outlined in this EIR that would reduce these impacts have been developed. (See Section 3.4, *Air Quality*; Section 3.5, *Biological Resources*; Section 3.6, *Cultural Resources*; Section 3.10, *Hazards and Hazardous Materials*; Section 3.13, *Noise*; and Section 3.15, *Transportation*.) Nonetheless, as described in these sections of the EIR, construction of new water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities would result in significant and unavoidable impacts.

Mitigation Measures: From Section 3.4, *Air Quality*, implement Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4. From Section 3.5, *Biological Resources*, implement Mitigation Measure 3.5-1 through Mitigation Measure 3.5-5. From Section 3.6, *Cultural Resources*, implement Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10. From Section 3.10, *Hazards and Hazardous Materials*, implement Mitigation Measure 3.10-2. From Section 3.13, *Noise*, implement Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4. From Section 3.15, *Transportation*, implement Mitigation Measure 3.15-1.

Significance after Mitigation: Although these mitigation measures would reduce impacts of projects facilitated by Draft 2045 CAP measures and actions, many would remain significant and unavoidable. See Table ES-2, *Summary of Impacts and Mitigation Measures*, in the Executive Summary for details. No additional mitigation measures are feasible.

Criterion b) Whether the Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Impact 3.17-2: Projects facilitated by the Draft 2045 CAP would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. (*Less-than-Significant Impact*)

The Draft 2045 CAP includes a number of measures and actions to increase the use of alternate water sources and reduce water consumption. The performance goals for Measure E5 include the following: (1) Meet 90 percent of Countywide water demand by recycled water, gray water, and/or direct potable reuse by 2045; (2) achieve 80 percent use of recycled or gray water for agricultural uses by 2045; (3) achieve 80 percent use of recycled or gray water for industrial uses by 2045. Measure E6, which is intended to reduce indoor and outdoor water consumption, includes the following performance goals: (1) Reduce total water use to less than 85 gallons per capita per day by 2045; (2) reduce outdoor landscaping water use by 50 percent by 2045; and (3) reduce municipal water consumption by 50 percent by 2045. Measure E6 also includes an action to develop a water conservation ordinance for new development (public and private), utilizing LEED or Sustainable SITES standards.

As demonstrated by the performance metrics, implementation of Measures E5 and E6 would substantially reduce municipal, agricultural, industrial, and outdoor landscaping water use. Future

projects facilitated by Draft 2045 CAP measures and actions may increase demand for water during construction. As described in Section 3.11, *Hydrology and Water Quality*, future projects would be independently subject to compliance with state regulations and local plans to reduce impacts associated with water demands in normal, dry, and multiple dry years as outlined in local UWMPs. Water needed to construct future projects would be provided by water retail agencies. These agencies would provide water to projects within their ability to serve outlined in their UWMPs and as required under SB 610 and SB 221. Groundwater resources needed to support future projects would be subject to regulations associated with basin adjudications or GSPs to ensure that future water demands do not exceed sustainability goals. Compliance with these requirements would ensure that impacts on water supplies from the Draft 2045 CAP and projects facilitating Draft 2045 CAP measures and actions would be less than significant.

Mitigation: None required.

Criterion c) Whether the Project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

Impact 3.17-3: Projects facilitated by the Draft 2045 CAP would result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. (*Significant and Unavoidable*)

The Draft 2045 CAP includes several measures and actions to increase water conservation and gray water use, which could result in a decrease in the amount of wastewater requiring treatment. Specifically, Actions E6.1, E6.2, E6.4, and E6.5 would improve water use efficiency in buildings, thereby reducing the generation of wastewater requiring treatment. In addition, Actions E5.1 through E5.4 would increase the use of gray water, which is relatively clean, once-used water that can be reused on-site for irrigation, agriculture, industrial, and other uses. The use of gray water either diverts once-used water from the wastewater stream (e.g., by making irrigation the end use) or reduces overall potable water use at a given facility and thereby reduces the amount of water sent to the wastewater stream. In either case, the increased use of gray water would reduce demand for wastewater treatment capacity. Some of these measures pertain to new development anticipated by the General Plan, and although these actions would reduce wastewater flows from individual residential or commercial buildings, the overall number of such buildings generating wastewater is expected to increase. (This increase in buildings is not a result of the Draft 2045 CAP, but of development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element.)

Other measures and actions in the Draft 2045 CAP (Actions E5.2, E5.3, and E5.5) would promote the development of water recycling and direct potable reuse facilities, as well as the associated collection and distribution infrastructure that would be required to serve these facilities. The impacts of these wastewater treatment facilities are addressed throughout this EIR. To meet the performance objectives of Measure E5 and its associated actions, the development of new water treatment facilities would be needed, which could result in significant impacts on several

environmental resources: air quality, biological resources, cultural resources, water quality, and noise. Therefore, impacts would be significant and unavoidable.

With respect to increases in wastewater treatment capacity that may result from population growth, the Draft 2045 CAP is a policy document that would support development already anticipated and allowed under the General Plan's land use assumptions as identified in the 2021–2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly result in increased demand on wastewater treatment facilities. As described in Section 3.14, *Population and Housing*, the Draft 2045 CAP would be consistent with the General Plan and the 2021–2029 Housing Element and would not result in population growth outside of what was accounted for in the General Plan. Therefore, the buildout assumptions that inform the measures in the Draft 2045 CAP would be consistent with the population growth planned for in the General Plan's 2021–2029 Housing Element.

Measures and actions facilitated by the Draft 2045 CAP would lead to increased use of recycled and gray water systems, requiring the development of new water recycling and direct potable reuse facilities. The development of these new facilities would allow for wastewater treatment providers to adequately serve their existing and projected commitments; however, this would lead to significant and unavoidable impacts.

Mitigation measures outlined in this EIR that would reduce these impacts have been developed. (See Section 3.4, *Air Quality*; Section 3.5, *Biological Resources*; Section 3.6, *Cultural Resources*; Section 3.10, *Hazards and Hazardous Materials*; Section 3.13, *Noise*; and Section 3.15, *Transportation*.) Nonetheless, as described in these sections of the EIR, construction of new water recycling and direct potable reuse facilities would result in significant and unavoidable impacts.

Mitigation: From Section 3.4, *Air Quality*, implement Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4. From Section 3.5, *Biological Resources*, implement Mitigation Measure 3.5-1 through Mitigation Measure 3.5-5. From Section 3.6, *Cultural Resources*, implement Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10. From Section 3.10, *Hazards and Hazardous Materials*, implement Mitigation Measure 3.10-2. From Section 3.13, *Noise*, implement Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4. From Section 3.15, *Transportation*, implement Mitigation Measure 3.15-1.

Significance after Mitigation: Although these mitigation measures would reduce the impacts of projects facilitated by Draft 2045 CAP measures and actions, many would remain significant and unavoidable. See Table ES-2, *Summary of Impacts and Mitigation Measures*, in the Executive Summary for details. No additional mitigation measures are feasible.

Criterion d) Whether the Project would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Impact 3.17-4: Projects facilitated by the Draft 2045 CAP would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less-than-Significant Impact*)

The Draft 2045 CAP is a policy document that would support development already allowed under the General Plan's land use assumptions of the 2021–2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly generate solid waste. The Draft 2045 CAP encourages the reduction of solid waste, and it includes Strategy 8 to reduce greenhouse gas emissions associated with solid waste generation. The intent is to increase solid waste diversion to reduce the amount of solid waste placed in landfills. Strategy 8 includes Measure W2, which includes implementing actions to increase organic composting in nonresidential buildings and within communities. The performance goal for Measure W2 is to reduce organic waste disposal (in landfills) by 90 percent (433,000 tons) by 2045. Action W2.4 includes provisions to provide regional leadership for the planning of organic waste processing capacity and development of infrastructure, making the performance goals for Measure W2 possible. Measure W1 includes implementing measures to incorporate sustainable waste systems and practices with goals of decreasing per capita waste by 55 percent by 2045; increasing the total County waste diversion rate to 95 percent by 2045; eliminating the disposal of single-use plastics in landfills; increasing the Construction and Demolition (C&D) Ordinance to 70 percent diversion; and increasing the percentage of C&D debris reused in new projects. The implementation of these measures would reduce the generation of solid waste in the County; therefore, Draft 2045 CAP measures and actions impacts on remaining landfill capacity, and on the future need to expand or construct new landfills, would be beneficial.

Implementation of Draft 2045 CAP measures and actions could result in the construction of facilities to meet goals for water recycling, waste diversion, and renewable energy, which could result in waste generated by project construction and operation. Future projects would be subject to AB 939, requiring waste reduction and recycling measures during construction as well as operation. Minimal waste would be generated during construction and operation of utility-scale ground-mounted renewable energy facilities and utility-scale structure-mounted wind energy facilities. Construction could generate concrete, wood, scrap metal, plastics from packaging material waste. Operational waste would include typical office waste from activities at future operations and maintenance facilities and, periodically, packaging wastes from solar or wind equipment and supplies. Solid waste generated during construction and operation would be recycled to the extent possible pursuant to AB 939. In accordance with Title 22, Chapter 20.87, of the LA County Code, utility-scale renewable energy project applicants would also be required to prepare a recycling and reuse plan and progress reports to implement and document recycling practices. As a result, solid waste generation from future utility-scale facilities is not anticipated to exceed local landfill capacities.

Some solar panels contain metals such as cadmium or tellurium that could be released into the environment if panels are broken or disposed of improperly. Waste recycling and hazardous waste disposal activities would be subject to regulations, including for disposal of aging or broken solar panels, that would minimize these impacts, as described in Section 3.10, *Hazards and Hazardous Materials*. Therefore, adoption of the Draft 2045 CAP would not impair attainment of solid waste reduction goals or generate substantial solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure. Impacts of solid waste generation resulting from projects facilitated by the Draft 2045 CAP would be less than significant.

However, to facilitate the diversion and processing of recoverable materials from the solid waste stream, it is reasonably foreseeable that new facilities would need to be constructed and operated. These facilities may include new or expanded transfer stations, recycling facilities, C&D debris collection and distribution facilities, and organic composting facilities. The potential exists for significant impacts to result from the construction and operation of such facilities, such as air pollutant and GHG emissions; stormwater runoff impacts; visual, noise, traffic, and/or odor impacts.

Future projects facilitated by the Draft 2045 CAP measures and actions would be required to comply with applicable federal, state, and local regulations and, as appropriate, to undergo LA County’s discretionary review process, including completion of subsequent project-level planning and environmental review under CEQA. In addition to widely applicable environmental regulations and permitting requirements that would reduce impacts, such as the NPDES Industrial General Permit, **Table 3.17-1** lists some industry-specific regulations applicable to the development of transfer stations, recycling facilities, C&D debris collection and distribution facilities, and organic composting facilities. The table below is not an exhaustive list, and these facilities may be subject to additional regulations.

**TABLE 3.17-1
 ENVIRONMENTAL REGULATORY REQUIREMENTS FOR SOLID WASTE DIVERSION FACILITIES**

| Transfer/Processing Operations, Materials Recovery Facilities (Recycling Facilities), and C&D and Inert Waste Facilities |
|---|
| <ul style="list-style-type: none"> • 14 CCR Chapter 3, Article 6.0, Transfer/Processing Regulatory Requirements. • 14 CCR Chapter 3, Articles 6.1, 6.2, 6.3, and 6.35, State Minimum Standards. • 14 CCR 17409.5.1, Organic Waste Recovery Efficiency. • 14 CCR 17409.5.6, Source Separated Organic Waste Handling. • County Code Section 22.140.720, Recycling Collection Facilities. • County Code Section 22.140.730, Recycling Processing Facilities. |
| Compostable Material Handling Facilities and Operations |
| <ul style="list-style-type: none"> • 14 CCR Division 7, Chapter 3.1, Articles 5, 6, 7, 8, and 9, Environmental health standards with regard to sampling requirements, maximum metal concentration requirements, pathogen reduction, and physical contamination limits for compost produced. • 14 CCR 17863, Report of Compost Site Information (RCSI). • 14 CCR 17863.4, Odor Impact Minimization Plan (OIMP). • 14 CCR 17863.4.1, Odor Best Management Practice Feasibility Report. • 14 CCR 17852(a)(24.5)(A), Land application requirements for compostable material. • 14 CCR 17869, General Recordkeeping and Reporting. • LA County Code Section 22.140.740, Organic Waste Facilities. |
| <p>NOTES: C&D = Construction and Demolition; CCR = California Code of Regulations; LA County = County of Los Angeles</p> |

As shown in Table 3.17-1, recycling and commercial composting are heavily regulated industries. The development of new transfer stations, recycling facilities, C&D debris collection and distribution facilities, and organic composting facilities facilitated by the Draft 2045 CAP would be subject to compliance with state and local regulations that are designed to minimize the environmental impacts of these facilities. Therefore, impacts would be less than significant.

Mitigation: None required.

3.17.2.4 Cumulative Impacts

For the purposes of this analysis of cumulative impacts related to utilities and service systems, the geographic area of consideration consists of Los Angeles County, inclusive of both incorporated and unincorporated areas. This geographic scope of analysis is appropriate for the analysis of utilities and service systems because cumulative projects have the potential to cause significant impacts on Los Angeles County if they exceed the capacity of current and projected infrastructure accounted for in the General Plan. Cumulative impacts could result as soon as projects facilitated by the Draft 2045 CAP are initiated and last in perpetuity.

Criterion a)

Impact 3.17-5: Projects facilitated by the Draft 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. (*Significant and Unavoidable Cumulative Impact*)

Future projects facilitated by the Draft 2045 CAP measures and actions could result in the construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities. Draft 2045 CAP measures and actions combined with other closely related past, present, and reasonably foreseeable future projects could promote the construction of new facilities to achieve goals for water conservation and recycling, energy efficiency, renewable energy, and waste diversion.

However, future projects facilitated by Draft 2045 CAP measures and actions would improve existing public utilities infrastructure and would not result in increased demand for new infrastructure not already anticipated with the expected population growth. Although population growth and infrastructure development may not occur simultaneously, public utility development will be needed to support development of new housing consistent with the General Plan's land use assumptions in the 2021–2029 Housing Element. Based on projections from the General Plan Draft EIR, the majority of expected population growth within the unincorporated areas will occur in northern Los Angeles County, including the Antelope Valley Planning Area and Santa Clarita Planning Area. This expected population growth would generate the need for additional services and infrastructure. Policy ED 1.14 of the Antelope Valley Area Plan acts to promote residential development in the vicinity of existing communities and town centers that are within the reach of existing infrastructure and utilities; therefore, public utility development is needed to support the expected population growth in the Antelope Valley. General Plan Implementation Program PS/F-

1, Planning Area Capital Improvement Plan, requires the LA County Department of Regional Planning and Department of Public Works to secure funding and access infrastructure needs for the 11 planning areas.

Additionally, Policy PS/F 4.2 requires LA County to support capital improvement plans and improve aging and insufficient wastewater infrastructure. Policy PS/F 6.1 is intended to ensure that efficient and cost-effective utilities are available to serve existing and future needs. Accordingly, future related projects facilitated by Draft 2045 CAP measures and actions, as well as other closely related past, present, and reasonably foreseeable future projects, would be required to comply with local, state, and federal regulations. Implementation Program PS/F-1 and associated Policies PS/F 4.2 and PS/F 6.1 would reduce project impacts. Nevertheless, cumulative impacts related to construction of new or expanded utility facilities would be significant.

As described above, the Draft 2045 CAP could promote the construction of new facilities such as utility-scale energy projects (solar, battery storage, substation, transmission) in the Antelope Valley, new water recycling facilities, electric vehicle charging stations, and composting facilities, which could result in environmental impacts. As described throughout this EIR, construction of the utility-scale energy projects could result in significant impacts on environmental resources including air quality, biological resources, cultural resources, water quality, transportation, and noise. Therefore, the Project's contribution to cumulative impacts related to construction of new or expanded utility facilities would be cumulatively considerable.

Mitigation measures outlined in this EIR that would reduce these impacts have been developed. Nonetheless, as noted in this EIR, construction of new water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities would result in significant and unavoidable impacts. As a result, the Project's impacts would remain cumulatively considerable.

Mitigation: From Section 3.4, *Air Quality*, implement Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4. From Section 3.5, *Biological Resources*, implement Mitigation Measure 3.5-1 through Mitigation Measure 3.5-5. From Section 3.6, *Cultural Resources*, implement Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10. From Section 3.10, *Hazards and Hazardous Materials*, implement Mitigation Measure 3.10-2. From Section 3.13, *Noise*, implement Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4. From Section 3.15, *Transportation*, implement Mitigation Measure 3.15-1.

Significance after Mitigation: Although these mitigation measures would reduce the incremental impacts of the Project, the Project's contribution to cumulative impacts in many instances would remain cumulatively considerable and therefore significant and unavoidable. No additional mitigation measures are feasible.

Criterion b)

Impact 3.17-6: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to insufficient water supplies. (*Less-than-Significant Cumulative Impact*)

Future projects facilitated by the Draft 2045 CAP measures and actions could result in insufficient water supplies. Based on projections from the General Plan Draft EIR, the majority of

expected population growth within the unincorporated areas will occur in northern Los Angeles County, including the Antelope Valley Planning Area and Santa Clarita Planning Area.

Based on the UWMPs of local water wholesalers, which include MWD and other local water districts, sufficient quantities of water are available to meet cumulative water demand projections during normal dry and multiple dry years, including residential and nonresidential development associated with population increases. Implementation of the Draft 2045 CAP would not cause an increase in population that would exceed UWMP projections. Furthermore, policies and goals in the local general plans strive to ensure that future projects do not supersede the anticipated water consumption and demand. Policy PS/F 3.1 aims to increase the supply of water through the development of new sources, such as recycled water, gray water, and rainwater harvesting. Policy PS/F 3.2 will support the increased production, distribution, and use of recycled water, gray water, and rainwater harvesting to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes, and other beneficial uses. Goal PS/F 2 works to increase water conservation efforts.

Additionally, the Draft 2045 CAP includes similar measures to reduce water consumption and increase local water supplies. The performance goals for Measure E5 include the following: (1) County demand will be met by recycled water, gray water, or direct potable reuse by 90 percent by 2045; (2) water demand for agriculture will be 80 percent recycled or gray water by 2045; (3) water demand for industrial will be 80 percent recycled or gray water by 2045; and (4) a successful direct potable reuse project will be implemented by 2025. Measure E6, which is intended to reduce indoor and outdoor water consumption, includes the following performance goals: (1) Reduce total water use to less than 85 gallons per capita per day by 2045; (2) reduce outdoor landscaping water use by 50 percent by 2045; and (3) reduce municipal water consumption by 50 percent by 2045.

As demonstrated by the performance metrics, implementation of Measures E5 and E6 would substantially reduce municipal, agricultural, industrial, and outdoor landscaping water use. Accordingly, future related projects facilitated by Draft 2045 CAP measures and actions, as well as other closely related past, present, and reasonably foreseeable future projects, would be required to comply with local regulations and when necessary, obtain WSAs from local water agencies to ensure the availability of sufficient water supplies to support the projects' demands. Given compliance with these water supply planning requirements and independent compliance with enforceable state law requirements such as drought Executive Orders, AB 610 and SB 221, the Project would not contribute to a significant water supply cumulative impact, and its impacts would not be cumulatively considerable.

Mitigation: None required.

Criterion c)

Impact 3.17-7: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to inadequate wastewater treatment capacity. (Significant and Unavoidable Cumulative Impact)

Future projects facilitated by the Draft 2045 CAP measures and actions could both increase and decrease demand for wastewater treatment services, depending on the project. (Some would generate wastewater while others would increase water conservation or result in the construction of water recycling and direct potable reuse facilities, as well as the associated collection and distribution infrastructure that would be required to serve these facilities.) Draft 2045 CAP strategies combined with other closely related past, present, and reasonably foreseeable future projects could cause significant impacts if they would generate wastewater exceeding the combined capacity of wastewater treatment facilities in Los Angeles County. Based on the General Plan's cumulative wastewater treatment capacity projections, the region has the capacity to treat wastewater from cumulative projects at existing wastewater treatment plants including municipal facilities and Los Angeles County Sanitation Districts' facilities. Additional policies and goals outlined in the General Plan will ensure that future projects facilitated by Draft 2045 CAP measures and actions, as well as other closely related past, present, and reasonably foreseeable future projects, do not exceed the combined capacity of wastewater treatment plants in Los Angeles County. Policy PS/F 5.1 will support an efficient, safe, and responsive waste management system that reduces waste while protecting the health and safety of the public. Policy PS/F 4.2 requires LA County to support capital improvement plans and improve on aging and insufficient wastewater infrastructure. Additionally, Measure E5 and associated performance objectives of the Draft 2045 CAP would facilitate the development of wastewater treatment infrastructure, which could cause significant and unavoidable impacts.

Accordingly, future related projects within the unincorporated areas of the County as well as within local municipalities, when added to impacts from Draft 2045 CAP measures and actions, would not cause an increase in population that would result in the need to expand wastewater treatment infrastructure. However, the Draft 2045 CAP would lead to increased use of recycled and gray water systems, requiring the development of new water recycling and direct potable reuse facilities. The development of these new facilities would allow wastewater treatment providers to adequately serve their existing and projected commitments; however, construction of these facilities would lead to potentially significant and unavoidable impacts. As a result, the Project would contribute to a significant wastewater treatment cumulative impact, and its impacts would be significant and unavoidable.

Mitigation measures outlined in this EIR that would reduce these impacts have been developed. Nonetheless, as noted in this EIR, construction of new water recycling and direct potable reuse facilities would result in significant and unavoidable impacts. As a result, the Project's impacts would remain cumulatively considerable.

Mitigation: From Section 3.4, *Air Quality*, implement Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4. From Section 3.5, *Biological Resources*, implement Mitigation Measure 3.5-1 through Mitigation Measure 3.5-5. From Section 3.6, *Cultural Resources*, implement Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10. From Section 3.10,

Hazards and Hazardous Materials, implement Mitigation Measure 3.10-2. From Section 3.13, *Noise*, implement Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4. From Section 3.15, *Transportation*, implement Mitigation Measure 3.15-1.

Significance after Mitigation: Although these mitigation measures would reduce the incremental impacts of the Project, the Project's contribution to cumulative impacts in many instances would remain cumulatively considerable and therefore significant and unavoidable. No additional mitigation measures are feasible.

Criterion d)

Impact 3.17-8: Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less-than-Significant Cumulative Impact*)

Future projects facilitated by the Draft 2045 CAP measures and actions would not generate waste in quantities that could result in insufficient solid waste infrastructure or exceed state and local standards. Existing regulations requiring waste minimization, recycling, and composting provide for sufficient solid waste disposal capacity in the County, including for both municipalities and unincorporated areas.

Both LA County and each municipality within Los Angeles County has identified solid waste capacity requirements through buildout as required by their general plans. Based on these general plans, landfills, recycling centers, and composting facilities are expected to accommodate the increase in solid waste. Future projects facilitated by the Draft 2045 CAP measures and actions combined with other closely related past, present, and reasonably foreseeable future projects would be required to comply with AB 939, which requires LA County to construct new solid waste infrastructure if its capacity will be exhausted in 15 years.

Cumulative impacts from future projects, population, and development growth accounted for in the General Plan would not require the construction of new solid waste disposal facilities. Additional policies and goals outlined in the General Plan will ensure that future projects do not exceed the combined capacity of solid waste disposal infrastructure in Los Angeles County. Policy PS/F 5.2 will ensure adequate disposal capacity by providing for environmentally sound and technically feasible development of solid waste management facilities, such as landfills and transfer/processing facilities. Policy PS/F 5.4 will encourage solid waste management facilities that utilize conversion and other alternative technologies and waste to energy facilities. Policy PS/F 5.5 will reduce the County's waste stream by minimizing waste generation and enhancing diversion.

Additionally, the Draft 2045 CAP includes measures aimed to reduce the production of solid waste. Implementation of Strategy 8 would work to reduce greenhouse gas emissions associated with solid waste generation. The intent is to increase solid waste diversion to reduce the amount of solid waste placed in landfills. Strategy 8 includes Measure W2, which includes implementing actions to increase organic composting in nonresidential buildings and within communities. The performance goal for Measure W2 is to reduce organic waste disposal (in landfills) by 90 percent

by 2045. Action W2.4 would support the performance goal by providing regional leadership for planning of organic waste processing capacity and development of infrastructure. Organic waste infrastructure development would ensure that proper infrastructure is present to achieve the performance goals of Measure W2. Measure W1 includes implementing measures to incorporate sustainable waste systems and practices with goals of decreasing per capita waste by 55 percent by 2045; increasing the total County waste diversion rate to 95 percent by 2045; eliminating the disposal of single-use plastics in landfills; increasing the C&D Ordinance to 70 percent diversion; and increasing the percentage of C&D debris reused in new projects. As explained in Impact 3.17-4, impacts caused by development of new transfer stations, recycling facilities, C&D debris collection and distribution facilities, and organic composting facilities facilitated by the Draft 2045 CAP would not be significant, because they would be subject to compliance with state and local regulations that are designed to minimize the environmental impacts of these facilities.

Accordingly, future related projects facilitated by Draft 2045 CAP measures and actions, as well as other closely related past, present, and reasonably foreseeable future projects, would be required to comply with local regulations, including AB 939. Compliance with the requirements of state law, local regulations, and local plans would ensure that the Project would not contribute to a significant cumulative solid waste impact. Impacts would not be cumulatively considerable.

Mitigation: None required.

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3.18 Wildfire

This section identifies and evaluates wildfire issues to determine whether the Project would result in a significant impact related to impairment of adopted emergency response or evaluation plans, creation or exacerbation of wildfire risks, or the exposure of people or structures to significant risks of wildland fire or post-fire conditions. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various concerns and questions related to the EIR. **Appendix A.5, *Scoping Input Received***, includes all comments received during the scoping comment period. Comments relevant to wildfire acknowledge that most types of development facilitated by the Draft 2045 CAP would occur in developed (or urban) areas and express concern that the particular large-scale projects allowed in A-2 zoned lands would likely occur in the Antelope Valley. This affects wildfire considerations because the application of large mulch berms for decomposition within composting facilities could be a fire hazard (e.g., once ignited, they are difficult to extinguish). Comments also request that the Draft 2045 CAP or mitigation measures identified in the EIR limit discretionary development in high-fire-risk areas and should encourage microgrid development, especially for fire-prone areas.

3.18.1 Setting

3.18.1.1 Study Area

The study area for this analysis of wildfire impacts consists of the area where the Draft 2045 CAP would be implemented, i.e., the approximately 1,696,000-acre (approximately 2,650-square-mile) area that comprises the unincorporated areas of the County. See Figure 2-1, *Map of Unincorporated Los Angeles County*.

3.18.1.2 Environmental Setting

The undeveloped lands within the County's land use jurisdiction support natural habitats such as grasslands, sage scrub, chaparral, and limited forest areas. In the context of fire ecology, these areas are known as *wildlands*. Fire ecology research has shown that the natural fire regime for the County's shrublands and forests was one of frequent small fires and occasional large fires. Modern society has interrupted and fractured the natural fire process by initiating fire suppression policies, introducing invasive plant species that burn readily, and building houses within or adjacent to wildland areas (known as *wildland-urban interface areas*) such as the foothills of the San Gabriel Mountains. Although fires can occur anywhere in the County, fires that begin in wildland areas pose a serious threat to personal safety and structures due to their rapid spread and the extreme heat often generated by these fires. Past wildfires have taken lives, destroyed homes, and devastated many acres of the County's natural resources.

Fire Protection Services

Fire and emergency medical services in the unincorporated areas of the County are provided by the Los Angeles County Fire Department (LACoFD). LACoFD has 175 fire stations, nine divisions, and 22 battalions, and multiple divisions including Air and Wildland, Fire Prevention, Forestry, and Health Hazardous Materials (LACoFD 2018). LACoFD receives the majority of its revenue from the *ad valorem* property tax paid by owners of taxable properties in the unincorporated areas of the County (Los Angeles County 2014). LACoFD has a mutual aid agreement with the U.S. Forest Service (USFS) to suppress wildland fires that occur in and around Angeles National Forest; LACoFD has primary responsibility for fire suppression of structure fires, while USFS has primary responsibility for responding to non-structure fires. In the event of an emergency, both LACoFD and USFS would fight wildland and structure fires.

LACoFD follows the following standards for response times (Los Angeles County 2014):

- 5 minutes or less for response times for urban areas.
- 8 minutes or less for suburban areas.
- 12 minutes or less for rural areas.

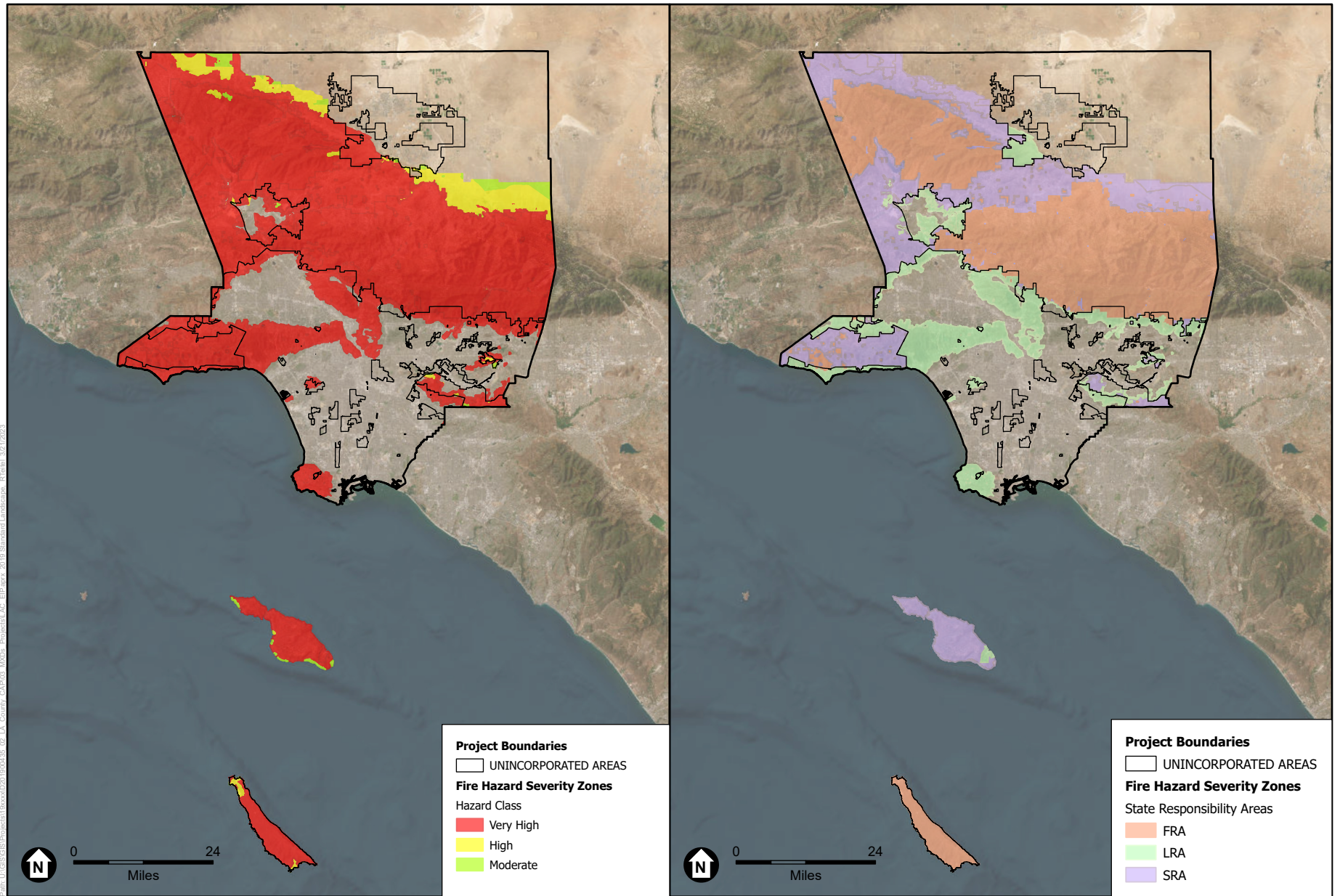
Designated Fire Hazard Severity Zones

The California Department of Forestry and Fire Protection (CAL FIRE) maps areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These areas, called *fire hazard severity zones* (FHSZs), are represented as Very High, High, or Moderate. The maps are divided into *Federal Responsibility Areas*, where the federal government is financially responsible for fire suppression; *State Responsibility Areas* (SRAs), where the state is financially responsible for wildfire suppression; and *Local Responsibility Areas* (LRAs), where cities or counties have the primary financial responsibility for wildfire suppression. In LRAs, only Very High Fire Hazard Severity Zones (VHFHSZs) are mapped. As of 2019, in the unincorporated areas of the County, there were about 24 square miles of VHFHSZs in LRA, 611 square miles of VHFHSZs in SRA, and 132 square miles of High FHSZs in SRA (Los Angeles County Chief Executive Office 2019). See **Figure 3.18-1, Fire Hazard Severity Zones and Responsibility Areas**.

The Federal Responsibility Areas in the County include Angeles National Forest and federal land in the Santa Monica Mountains. SRAs include the Santa Susana Mountains, foothills of the San Gabriel Mountains, and parts of the Santa Monica Mountains. VHFHSZs in LRA include foothills of the Santa Susana and San Gabriel mountains, the Verdugo Mountains, Santa Monica Mountains, Hollywood Hills, San Rafael Hills, Puente Hills, and other hills in the central Los Angeles area (CAL FIRE 2007; Los Angeles County 2014).

Fire Environment

Fire behavior is primarily dependent upon fuels (e.g., vegetation), weather (e.g., wind, temperature, and humidity), and topography (e.g., slope, elevation, and aspect). The combination of these three factors can help or hinder the spread of a wildfire if it occurs. Los Angeles County encompasses a very large area, and the topography, vegetation, and climate vary across the County.



SOURCE: LA County, 2021; CALFIRE, 2021; ESA, 2022

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 3.18-1
 Fire Hazard Severity Zones
 and Responsibility Areas

Topography

Topography describes slope increases, which influence the rate of wildfire spread. South-facing slopes, for example, are subject to more solar radiation, which makes them drier and intensifies wildfire behavior. By comparison, ridge tops may mark the end of wildfire spread, because fire spreads downhill more slowly than it does uphill (Los Angeles County Chief Executive Office 2019). Approximately 47 percent of Los Angeles County is mountainous, and the remainder consists of alluvial valleys, coastal plains, and high desert. Elevations begin at sea level and rise to 10,069 feet (LACoFD 2021). The areas of the County that are most susceptible to wildfires are generally located in mountainous or hillside areas, including the Santa Monica Mountains, San Gabriel Mountains, Palos Verdes Hills, and Puente Hills; however, the areas where wildfire poses the greatest risk to people are located generally along the wildland-urban interface (Los Angeles County Chief Executive Office 2019). Wildland-urban interface occurs throughout unincorporated Los Angeles County, where there is dense housing (more than 1 house per 20 acres) adjacent to vegetation that can burn in a wildfire, and is particularly common where urban development meets the mountainous or hillside areas described above (CAL FIRE 2019).

Vegetation/Fuels

Fuel is the type and condition of vegetation that plays a significant role in wildfire spread occurrence. Certain plant types are more susceptible to burning or, once ignited, burn with greater intensity. Dense or overgrown vegetation increases the amount of combustible material available to fuel a fire (i.e., the *fuel load*); the ratio of living to dead plant matter is also important. Certain changes to the climate may increase wildfire risk significantly during prolonged drought periods because they cause the moisture content to decrease for both living and dead plant matter. The continuity of both the horizontal and vertical fuel load is also an important factor (Los Angeles County Chief Executive Office 2019).

Large portions of the undeveloped areas of the County (particularly in the Santa Monica Mountains, Santa Clarita Valley, and Antelope Valley) include coastal sage, riparian oak woodland, and chaparral vegetation types. The Antelope Valley contains desert species such as juniper, Joshua tree, California scrub oak, creosote bush, and pinyon pine. High country areas in the eastern portion of Los Angeles County include conifers and hardwoods. Fire risk in the County is particularly high in the undeveloped areas that are designated as VHFHSZs. These areas typically contain chaparral ecosystems, which contain volatile oils that are particularly flammable. Additionally, chaparral communities are typically located in mountainous areas where the steep terrain can fuel the spread of wildfire (LACoFD 2021).

Weather/Climate

Weather is the most variable factor affecting wildfire behavior. Temperature, humidity, wind, and lightning can affect ignition opportunities and fire spread rate. Extreme weather, such as high temperatures and low humidity, can lead to extreme wildfire activity. Climate change increases the susceptibility of vegetation to fire ignition because of the longer dry seasons. By contrast, cooling and higher humidity often signal reduced wildfire occurrence and easier containment (Los Angeles County Chief Executive Office 2019).

The Los Angeles basin has a Mediterranean climate and experiences warm dry summers and mild wet winters. High moisture levels during the winter rainy season significantly increase the growth of plants. However, the vegetation is dried during the long, hot summers, decreasing plant moisture content and increasing the ratio of dead fuel to living fuel. As a result, fire susceptibility increases dramatically, particularly in late summer and early autumn.

The coastline in Los Angeles County experiences much cooler temperatures than inland areas, which can reach temperatures above 100 degrees Fahrenheit in the summer. The County experiences about 35 days of precipitation each year. In the autumn and winter months, high-pressure weather systems that develop over the Great Basin and Mojave Desert heat up air and produce strong offshore winds commonly known as *Santa Ana winds*. These are strong downslope winds that blow through the mountains, decrease relative air humidity and fuel moisture, and create conditions that can lead to the spread of high-severity wildland fires (LACoFD 2021).

Impacts of Wildfire on Air Quality

As wildfires burn fuel, large amounts of carbon dioxide, black carbon, brown carbon, and ozone precursors are released into the atmosphere. Additionally, wildfires emit a substantial amount of volatile and semi-volatile organic materials and nitrogen oxides that form ozone and organic particulate matter. These emissions can lead to harmful exposures for first responders, nearby residents, and populations in regions farther from the wildfires (NOAA 2021). Exposure to these pollutants can cause asthma attacks, coughing, and shortness of breath. Chronic exposure to these pollutants can increase the risk of developing chronic health conditions such as heart disease, diabetes, and cancer (Hamers 2018; Milman 2018).

Recent Fire History

In recent years, Los Angeles County has experienced many very large, damaging fires, including the 2020 Bobcat Fire, which burned 115,79 acres and destroyed 171 structures; and the 2020 Lake Fire, which burned 31,089 acres and destroyed 33 structures. The 2018 Woolsey Fire burned approximately 97,000 acres and destroyed more than 1,600 structures. According to the 2021 LACoFD Strategic Plan, in 2020 the County recorded 4,375 ignition starts—the majority caused by outside rubbish fires, followed by structure fires and vehicle sources (LACoFD 2021).

Future Fire Regime

In the *California's Wildfire and Forest Resilience Action Plan*, the Governor's Forest Management Task Force describes the southern region as including Los Angeles County as well as Imperial, Orange, Riverside, San Bernardino, and San Diego counties and a portion of Ventura County (CFMTF 2021). Some 22.4 million people live in this region; one in four of them face a high, very high, or extreme fire threat (CFMTF 2021). Each of the four bioregions that make up this area (the Mojave Desert, the Sonoran Desert, the Colorado Desert, and the coastal plains) contains countless ecosystems, meaning that fire behavior (or *fire regimes*) can vary widely.

In general, seasonal Santa Ana winds dominate fire behavior along the coast, and in mountainous areas, other wind patterns also affect fire spread inland. In inland areas, vegetation type and density have the greatest impact on fire patterns, especially where fine fuels such as grasses, chaparral, and

shrubs can ignite easily and burn both hot and quickly. Other factors affecting fire behavior include elevation, slope, and distance from the coast (CFMTF 2021). Decades of fire suppression that have led to fuel buildup in forests and a departure from natural fire regimes have increased the severity of fires throughout the state (CFMTF 2021). Increasing urbanization across previously undeveloped areas near existing cities (areas that sometimes are referred to as the *wildland-urban interface*) is diminishing the importance of climate in driving fire activity and increasing fire hazard. This is because humans are a major source of fire ignitions and are affecting wildfire patterns in unintended ways, such as by inhibiting prescribed burns because of concerns about air pollution and adjacency to homes (Hall et al. 2018). Fires are becoming larger and more destructive and massive quick-spreading fires are becoming more frequent (Syphard 2018). Wildfire is a common occurrence in the County (Los Angeles County Chief Executive Office 2019). Climate change is expected to increase both the risk and the intensity of wildfires in the region (CFMTF 2021).

Disaster Routes and Evacuation Routes

The County Department of Public Works describes *disaster routes* as “freeway, highway or arterial routes pre-identified for use during times of crisis” (LA County DPW 2022). These routes have been designated in advance to bring in emergency personnel, equipment, and supplies to affected areas to protect property, minimize environmental impacts, and save lives. During a disaster, these routes are prioritized for clearing, repairing, and restoration over all other roads (LA County DPW 2022). Disaster routes have been mapped for the north County operation area (LA County DPW 2012a) and the south County operation area (LA County DPW 2012b).

Disaster routes are not *evacuation routes*, which are used to move the affected population out of an affected area. An emergency may warrant the use of a road as both a disaster and evacuation route; however, the two are distinct (LA County DPW 2022). The County has not formally adopted evacuation routes, but instead maps them as needed on an incident-by-incident basis. The *Topanga Community Wildland Fire Evacuation Plan* identifies the County’s approach to ensure, in cooperation with public agencies, a safe and effective community response to a wildland fire evacuation (Los Angeles County Chief Executive Office 2009).

3.18.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

Federal Response Plan

The Federal Response Plan of 1999 is an agreement between 27 federal agencies that provides the mechanism for coordinating delivery of federal assistance and resources to augment the efforts of state and local governments in the event of a major disaster or emergency.

State Laws, Regulations, and Policies

Executive Order B-52-18

Governor Edmund G. Brown Jr. signed Executive Order (EO) B-52-18 on May 10, 2018. EO B-52-18 recognizes that the size and intensity of wildfires have dramatically increased, and orders CAL FIRE to work with landowners to accelerate prescribed fire projects across jurisdictions and

integrate fire prevention activities into landscape reforestation efforts in and near wildland-urban interface areas (LA County DPW 2022).

2018 Strategic Fire Plan for California

Developed by the Board of Forestry and Fire Protection, the *2018 Strategic Fire Plan for California* outlines goals and objectives to implement CAL FIRE's overall policy direction and vision (CAL FIRE 2018). The 2018 plan demonstrates CAL FIRE's focus on: (1) fire prevention and suppression activities to protect lives, property, and ecosystem services; and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and serve as important habitat for adaptation and mitigation. CAL FIRE provides direction for fire prevention and enforcement within the SRAs using fire resource assessments, a variety of available data, mapping, and other tools. Pre-fire management activities, including prescribed burning, fuel breaks, forest health treatments, and removal of hazardous vegetation, are conducted at the unit level under the guidance of CAL FIRE program managers. Through the 2018 Strategic Plan, CAL FIRE also delivers land use planning and defensible space inspection programs to the local level across the state.

The *2018 Strategic Fire Plan for California* outlines operational units, which geographically follow County lines and consist of one operational unit to three counties. Because each operational unit varies greatly in size, terrain, and fire suppression strategies, individual unit strategic fire plans are completed annually to address how each unit is achieving the goals and objectives of the California Strategic Fire Plan.

Governor's Forest Management Taskforce

On January 8, 2021, Governor Gavin Newsom's Forest Management Taskforce released *California's Wildfire and Forest Resilience Action Plan* (CFMTF 2021), a comprehensive plan to reduce wildfire risk for vulnerable communities, improve the health of forests and wildlands, and accelerate action to combat climate change. Implementation of the plan is intended to guide the state's efforts going forward with an overall goal to increase the pace and scale of forest management and wildfire resilience efforts by 2025 and beyond. The plan contains four goals: Goal 1, to increase the pace and scale of forest health projects; Goal 2, to strengthen the protection of communities; Goal 3, to manage forests to achieve the state's economic and environmental goals; and Goal 4, to drive innovation and measure progress.

California Attorney General's Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act

The Office of the Attorney General released the guidance document *Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act* guidance on October 10, 2022 (State of California, Office of the Attorney General 2022). While it does not have the force of law or promulgated regulation, the guidance does provide suggestions for how best to comply with CEQA when analyzing and mitigating a proposed project's impacts on wildfire ignition risk, emergency access, and evacuation. This document does not impose additional requirements on local governments or alter any applicable laws or regulations. Rather, it is intended to provide general direction to lead agencies as they consider the effects of wildfire on development projects.

Among other things, the guidance suggests that lead agencies should consider the contexts within which wildfire risk can be reduced through thoughtful planning and design. These include such factors as project density (higher density developments tend to be less vulnerable to wildfire and present lessened risk associated with wildfire ignitions); project location within the landscape (project placement in the landscape relative to fire history, topography, and wind patterns influences wildfire risk); and the availability of adequate water supplies and infrastructure. The guidance also suggests that lead agencies consider a development's effects with respect to emergency response and evacuation, although the guidance does not establish a threshold for what constitutes a significant effect under CEQA.

State of California Emergency Response Plan

Pursuant to the Emergency Services Act (Government Code Section 8550 et seq.), the California Office of Emergency Services (Cal OES) developed the *State of California Emergency Plan* (State Emergency Plan) to coordinate how emergency services are provided by federal, state, and local governmental agencies and private persons in response to natural and human-caused emergencies (Cal OES 2017). The State Emergency Plan recognizes that “climate impacts, including extreme weather events, sea level rise, changing temperature, precipitation patterns, and severe and frequent wildfires, present new risks that impact all phases of emergency management” and outlines how Cal OES coordinates the emergency responses of other agencies. For example, the Cal OES Fire and Rescue Branch coordinates all interregional and state agency activity related to mutual aid under the California Fire Service and Rescue Mutual Aid Plan; this mutual aid and multiagency coordination mitigates the effects of fire and other disasters, whether they are natural or human-caused (Cal OES 2019). The State Emergency Plan also defines the “policies, concepts, and general protocols” for proper implementation of the California Standardized Emergency Management System, which agencies in California must follow during multiagency response efforts whenever state agencies are involved.

Fire Hazard Severity Zones

Public Resources Code Sections 4201 and 4204 and Government Code Chapter 6.8 (Sections 51175–51189) directed CAL FIRE to map FHSZs. The maps are divided into Local Responsibility Areas (LRAs) and State Responsibility Areas (SRAs). LRAs generally include cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, and counties, and by CAL FIRE under contract to the local government.

California Public Resources Code

The Public Resources Code also includes fire safety regulations that apply to SRAs during the time of year designated as having hazardous fire conditions, i.e., “fire season.” During the fire hazard season, these regulations restrict the use of spark arrestors on equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas.

Further, Public Resources Code Section 4291 provides that a person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining brush- or grass-covered lands

or land that is covered with flammable material shall at all times maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line. In turn, Public Resources Code Sections 4292 and 4293 require that any person who owns, controls, operates, or maintains any electrical transmission or distribution line maintain a firebreak clearing around and adjacent to any pole, tower, or conductor that carries electric current as specified in the section.

Fire Protection in California Fire Code and Public Resources Code

The California Fire Code is contained within California Code of Regulations (CCR) Title 24, Chapter 9. Based on the International Fire Code, the California Fire Code is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code use a hazards classification system to determine the appropriate measures to incorporate to protect life and property. Section 1206 of the California Fire Code outlines provisions for applicable stationary and mobile energy storage systems, including threshold quantities.

The California Public Resources Code includes fire safety provisions that apply to either mountainous, forest, brush, and/or grass-covered lands that are deemed necessary by the director or agency with primary responsibility for fire protection in the area. During the fire hazard season, these regulations restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas.

Additional provisions in Public Resources Code Sections 4294–4296 require anyone who owns, controls, operates, or maintains an electrical transmission or distribution line on mountainous or forest-, brush-, or grass-covered land to maintain a firebreak clearing around and adjacent to any pole, tower, and conductors that carry electric current. Section 4292 requires Pacific Gas and Electric Company to maintain a 10-foot firebreak clearance around the base of a utility pole, with tree limbs within the 10-foot radius of the pole being removed up to 8 feet above ground. The state's Fire Prevention Standards for Electric Utilities (14 CCR Sections 1250–1258) provide specific exemptions from clearance standards for electric poles, tower firebreaks, and electric conductors and specifies when and where the standards apply.

California Building Code

A subset of the California Building Code (24 CCR Part 2) is known as the California Fire Code. The Fire Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

Assembly Bill 747

AB 747 was adopted in 2019, and requires that safety elements be reviewed and updated as necessary to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. The law authorizes a city or county that has adopted a local hazard

mitigation plan, emergency operations plan, or other document that fulfills commensurate goals and objectives to use that information in the safety element to comply with this requirement by summarizing and incorporating by reference that other plan or document in the safety element.

Regional and Local Laws, Regulations, and Policies

Los Angeles County Fire Department

2021 Los Angeles County Fire Department Strategic Plan

The County is one of six contract counties that have executed a contract with the State of California to provide wildland fire protection on SRAs. LACoFD has the responsibility as part of a contract county to implement the State Strategic Fire Plan, and it functionally operates as a unit of CAL FIRE and is responsible for Strategic Fire Plan activities in Los Angeles County. The 2021 LACoFD Strategic Plan includes three goals: emergency operations, public service, and organizational effectiveness. The 2021 LACoFD Strategic Plan includes goals for LACoFD related to analyzing the threat of wildfire to communities in the wildland-urban interface; implementing fuel reduction projects; developing battalion specific asset maps, strategies, and tactics; and identifying fire prevention strategies that are consistent with the County's land use planning strategies. LACoFD also includes goals to support local Fire Safe Councils and to work with communities to develop community wildfire protection plans (LACoFD 2021).

Los Angeles County Fire Department Programs

LACoFD has adopted the California Fire Code and added local amendments due to the County's geographical area for regulations and standards that are applied to new development in hazardous fire areas. These standards and requirements include the provision of access roads, adequate road widths, all-weather access, fire flow requirements, fire hydrant spacing, and vegetation clearance.

The County Fire Code requires that projects in areas located in VHFHSZs complete and seek approval of a fuel modification plan. The County Code also includes restrictions, permit requirements, and requirements for fire suppression equipment for activities and housing in fire-prone areas. The County Fire Code includes provisions for the use and storage of hazardous, flammable, and combustible material. It also includes fire safety and plan review requirements for construction and demolition generally (Section 105.4.2), as well as requirements for specific permits for land uses such as energy storage systems (Section 105.6.5).

LACoFD has instituted a variety of programs to reduce wildfire-related threats. These relate to pre-fire management and defensible space planning, vegetation management (focusing on the use of prescribed fire; hand crews; and mechanical, biological, and chemical means to address wildland fire fuel hazards in SRAs and LRAs) and brush clearance (Los Angeles County Chief Executive Office 2019; LACoFD 2022a), as well as fuel modification (Los Angeles County 2014). In addition to these programs, LACoFD and the County Department of Public Works enforce fire and building codes related to development in FHSZs. Further, LACoFD's Ready! Set! Go! program informs residents about how to create defensible space around homes, retrofit homes with fire-resistant materials, and prepare for evacuation in advance of a wildfire (LACoFD 2022b).

Los Angeles County Operational Area Emergency Response Plan

Adopted in 2012, the County Operational Area Emergency Response Plan (OAERP) identifies how the emergency response plan aligns with other local, state, and federal authorities. The plan identifies various emergency management phases and incident management systems, and identifies operational priorities. The purpose of the OAERP is to incorporate and coordinate all the facilities and personnel of County government, along with the jurisdictional resources of the cities and special districts within the County, into an efficient operational area organization capable of responding to any emergency using the California Standardized Emergency Management System, mutual aid, and other appropriate response procedures. The OAERP is an extension of the California Emergency Plan. The plan's operational concepts focus on large-scale disasters that have the potential to generate unique situations (Los Angeles County Chief Executive Office 2012).

Los Angeles County All-Hazards Mitigation Plan

The County's All-Hazards Mitigation Plan was adopted in 2019 (Los Angeles County Chief Executive Office 2019). The plan includes risk assessments and hazard mitigation strategies for a variety of hazards including wildfire. It describes the fireproof coating of and provision of auxiliary power for critical assets; the County's brush program, vegetation management program, and education and awareness programs to mitigate wildfire hazard risks; ; and various community wildfire protection plans to identify strategic sites and methods for fuel reduction projects across the landscape.

Los Angeles County 2035 General Plan

The Land Use Element of the General Plan (Los Angeles County 2015a) includes the following goals and policies that are relevant to the Project:

Goal LU 3: A development pattern that discourages sprawl, and protects and conserves areas with natural resources and SEAs [Significant Ecological Areas].

Policy LU 3.2: Discourage development in areas with high environmental resources and/or severe safety hazards.

Goal LU 11: Development that utilizes sustainable design techniques.

Policy LU 11.6: Ensure that subdivisions in VHFHSZs site open space to minimize fire risks, as feasible.

The Conservation and Natural Resources Element of the General Plan (Los Angeles County 2015b) includes the following goals and policies which are relevant to the Project:

Goal C/NR 3: Permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems including... woodlands.

Goal C/NR 4: Conserved and sustainably managed woodlands.

Policy C/NR 4.1: Preserve and restore oak woodlands and other native woodlands that are conserved in perpetuity with a goal of no net loss of existing woodlands.

Goal C/NR 13: Protected visual and scenic resources.

Policy C/NR 13.8: Manage development in HMAs [Hillside Management Areas] to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.

The Safety Element of the General Plan (Los Angeles County 2022) includes the following goals and policies that are relevant to the Project:

Policy S 4.1: Prohibit new subdivisions in VHFHSZs unless: (1) the new subdivision is generally surrounded by existing or entitled development or is located in an existing approved specific plan or is within the boundaries of a communities facility district adopted by the County prior to January 1, 2022, including any improvement areas and future annexation areas identified in the County resolution approving such district; (2) the County determines there is sufficient secondary egress; and (3) the County determines the adjoining major highways and street networks are sufficient for evacuation as well as safe access for emergency responders under a range of emergency scenarios, as determined by the County. Discourage new subdivisions in all other FHSZs.

Policy S 4.2: New subdivisions shall provide adequate evacuation and emergency vehicle access to and from the subdivision on streets or street systems that are evaluated for their traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end, one-way, or single lane conditions.

Policy S 4.3: Ensure that biological and natural resources are protected during rebuilding after a wildfire event.

Policy S 4.4: Reduce the risk of wildland fire hazards through meeting minimum State and local regulations for fire-resistant building materials, vegetation management, fuel modification, and other fire hazard reduction programs.

Policy S 4.5: Encourage the use of climate-adapted plants that are compatible with the area's natural vegetative habitats.

Policy S 4.6: Ensure that infrastructure requirements for new development meet minimum State and local regulations for ingress, egress, peak load water supply availability, anticipated water supply, and other standards within FHSZs.

Policy S 4.7: Discourage building mid-slope, on ridgelines and on hilltops, and employ adequate setbacks on and below slopes to reduce risk from wildfires and post-fire, rainfall-induced landslides and debris flows.

Policy S 4.8: Support the retrofitting of existing structures in FHSZs to meet current safety regulations, such as the building and fire code, to help reduce the risk of structural and human loss due to wildfire.

Policy S 4.10: Encourage the planting of native oaks in strategic locations and near existing oak woodlands, including those to be mapped in the Oak Woodlands Conservation Management Plan, to protect developments from wildfires, as well as to lessen fire risk associated with developments.

Policy S 4.12: Support efforts to incorporate systematic fire protection improvements for open space, including the facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with landowners and other stakeholders, and water sources for fire suppression.

Policy S 4.14: Encourage the strategic placement of structures in FHSZs that conserves fire suppression resources, increases safety for emergency fire access and evacuation, and provides a point of attack or defense from a wildfire.

Policy S 4.16: Require local development standards to meet or exceed SRA Fire Safe Regulations, which include visible home and street addressing and signage and vegetation clearance maintenance on public and private roads; all requirements in the California Building Code and Fire Code; and Board of Forestry Fire Safe Regulations.

Policy S 4.17: Coordinate with agencies, including the Fire Department and ACWM [County of Los Angeles Department of Agricultural Commissioner/Weights and Measures], to ensure that effective fire buffers are maintained through brush clearance and fuel modification around developments.

Policy S 4.18: Require Fire Protection Plans for new residential subdivisions in FHSZs that minimize and mitigate potential loss from wildfire exposure, and reduce impact on the community's fire protection delivery system.

Policy S 4.19: Ensure all water distributors providing water in unincorporated Los Angeles County identify, maintain, and ensure the long-term integrity of future water supply for fire suppression needs, and ensure that water supply infrastructure adequately supports existing and future development and redevelopment, and provides adequate water flow to combat structural and wildland fires, including during peak domestic demand periods.

Policy S 4.20: Prohibit new and intensification of existing general assembly uses in VHFHSZs unless: (1) the use is located in an existing approved specific plan or (2) the County determines there is sufficient secondary egress and the County determines the adjoining major highways and street networks are sufficient for evacuation, as well as safe access for emergency responders under a range of emergency scenarios, as determined by the County. Discourage new general assembly uses in all other FHSZs.

Policy S 7.1: Ensure that residents are protected from the public health consequences of natural or manmade disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.

Policy S 7.2: Support County emergency providers in reaching their response time goals.

Policy S 7.3: Coordinate with other County and public agencies, such as transportation agencies, and health-care providers on emergency planning and response activities, and evacuation planning.

Policy S 7.4: Encourage the improvement of hazard prediction and early warning capabilities.

Policy S 7.5: Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.

Policy S 7.6: Ensure that essential public facilities are maintained during natural disasters, such as flooding, wildfires, extreme temperature and precipitation events, drought, and power outages.

Policy S 7.7: Locate essential public facilities, such as hospitals, where feasible, outside of hazard zones identified in the Safety Element to ensure their reliability and accessibility during disasters.

Safety Element Figure 12.6 shows the County’s designated Disaster Routes Map, which is consistent with the County Department of Public Works’s Disaster Route maps for the north and south County areas (LA County DPW 2012a, 2012b, 2022a).

Los Angeles County Code

Fire-related land use and building regulations are found throughout the County Code. Examples include the following:

- **Title 32, Fire**, requires that defensible space be maintained around all buildings and structures in SRAs and within the Very High Fire Hazard Severity Zones of LRAs (Section 4907); requires fuel modification plans for projects in areas designated as FHSZs within SRAs or as VHFHSZs within LRA, identifying specific zones within properties where it is necessary to modify combustible native or ornamental vegetation or replace it with drought-tolerant, low-fuel-volume plants (Section 4908); contains fire flow (Appendix B) and hydrant (Appendix C) requirements; and governs the clearance of brush and vegetative growth relative to electrical transmission lines, cables, and structures (Section 325). Title 32 also requires LACoFD approval for land development projects (Section 105.6.25.2).
- **Title 21, Subdivisions**, establishes access road requirements for fire equipment access and public evacuation (Chapter 21.24, Part 1); requires that storm drain, sewer, or fire access easement designations be noted on subdivision maps (Section 21.44.250); and governs fire-protection access easements (Section 21.24.220). These regulations are in place to ensure that adequate infrastructure, such as necessary disaster routes, are incorporated into new developments; however, older communities with aging and substandard infrastructure may face greater risks from wildland fires (Los Angeles County 2015c).
- **Title 26, Building**, includes requirements for buildings within a wildland-urban interface area (Chapter 7A).

3.18.2 Impact Analysis

3.18.2.1 Significance Criteria

To determine the level of significance of an identified impact, the analysis uses the following thresholds, which are consistent with and modified from the CEQA Guidelines Appendix G Environmental Checklist.

Consistent with the CEQA Guidelines Appendix G Environmental Checklist and the County practice, the Project would have a significant impact related to wildfire if located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, the Project would:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan;
- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment;

- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes; or
- e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

3.18.2.2 Methodology

As described in Chapter 2, *Project Description*, the Project is evaluated at a programmatic level and the analysis is based on information available to the County where reasonably foreseeable direct and indirect physical changes in the environment could be considered. Wildfire impacts are evaluated with consideration of the existing regulations discussed in Section 3.18.1.3, *Regulatory Setting*, that address fire hazards and the effectiveness of standard wildfire risk abatement methods as they relate to the development of projects that could be facilitated by the Draft 2045 CAP measures and actions. As described in Section 3.18.1.2, the natural fire regime in Los Angeles County is characterized by frequent small fires and occasional large fires, while modern development has modified the natural fire process and placed homes and infrastructure within wildland-urban interface areas.

The general approach employed in this analysis is that if wildfire risk can be effectively lessened through implementation of standard regulatory requirements (e.g., compliance with the County Safety Element, Fire Code, Building Code, other adopted plans) and contextual considerations that reduce wildfire risks to acceptable levels, the impact would be less than significant. In determining the level of significance, the analysis assumes that projects facilitated by the Draft 2045 CAP measures and actions would comply with relevant federal, state, and local regulations, laws, and policies, and would be subject to the appropriate level of project-specific CEQA review that would include additional wildfire impact analysis at the time of entitlement applications. This approach is consistent with recent court decisions¹ and the Attorney General's October 2022 CEQA wildfire guidance directives, in which the Attorney General suggests that lead agencies to consider wildfire impacts within the context of their placement within the landscape and other factors, and to consider any mitigating circumstances provided by those contexts.

3.18.2.3 Project Impacts

Section 2.6.3 of Chapter 2, *Project Description*, provides a list of proposed GHG emissions reduction measures that would be implemented by the Draft 2045 CAP. None of the proposed measures indicate where specific projects would be constructed, their sizes, or their specific characteristics. As a program EIR, this Draft EIR does not speculate on the specific environmental impacts of individual projects that could be facilitated by the Draft 2045 CAP measures and actions. However, impacts of implementation of specific measures and actions were considered as part of this analysis to the degree that specific information about implementation is known. As explained in Draft EIR Section 3.1.3.6, the potential impacts of new utility-scale,

¹ See *League To Save Lake Tahoe Mountain Area Preservation Foundation. v. County of Placer* (2022) 75 Cal.App.5th 63, which found that CEQA wildfire impact analyses may properly rely on compliance with fire prevention standards and requirements that reduce wildfire risk and spread, and that adding people to an area with wildfire risks does not mean that emergency evacuation impacts are necessarily significant. This decision points to the specific contexts within which development occurs, and does not indicate that *any* increase in emergency evacuation time should necessarily be considered a significant effect.

ground-mounted solar photovoltaic projects and associated energy storage, transmission, and distribution facilities are qualitatively evaluated at a programmatic level.

The Draft 2045 CAP details the GHG emission reduction vision and goals of the OurCounty Sustainability Plan for unincorporated Los Angeles County and would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan. Specifically, the Draft 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element, known as the 2020 CCAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

Consistent with the requirements of CEQA Guidelines Section 15168, this EIR provides a program-level discussion of the potential impacts of implementing these measures, rather than project-level or site-specific physical impacts of such actions. Table ES-1, *Summary of Draft 2045 CAP Measures and Affected Resource Areas*, in the Executive Summary, identifies certain measures and actions relevant to this analysis of wildfire impacts because they could worsen wildfire conditions. These and other relevant measures and actions include: Measure ES2, Procure Zero-Carbon Electricity; Measure ES3, Increase Renewable Energy Production; Measure T1, Increase Density Near High-Quality Transit Areas; Measure T2, Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use; Measure T3, Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips; Measure T4, Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation; Measure T6, Increase Zero-Emissions Vehicle Market Share and Reduce Gasoline and Diesel Fuel Sales; Measure T7, Electrify County Fleet Vehicles; Measure T9, Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment; Measure E1, Transition Existing Buildings to All-Electric; and Measure A1, Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands.

The time frame during which the implementation of these actions and measures would cause wildfire-related impacts would depend on the specific implementation timing (as shown in Table 2-11 in Chapter 2, *Project Description*), and on whether implementing the actions and measures would exacerbate fire risk for one or more of the specified reasons. If an impact were to occur, it would occur immediately and could be short term (e.g., exposure to pollutant concentrations from wildfire smoke) or continue for the long term (e.g., exposure of people or structures to significant risks, including downslope or downstream flooding or landslides due to post-fire drainage changes). Impacts of projects facilitated by the Draft 2045 CAP that would result in impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan technically would begin either as soon as the project generates an obstruction or delay or as soon as such a plan is adopted. Impacts would remain until the obstruction or delay is remediated, or until the adopted plan is amended to alleviate the interference with the success of its implementation. The magnitude of long-term impacts would increase over time to the extent that CAP measures and actions would facilitate more projects to meet the Draft 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG

reduction targets. Specific wildfire impacts of implementing Draft 2045 CAP measures and actions are analyzed below.

CEQA Guidelines Section 15183.5 allows future development projects to streamline their GHG analysis by showing consistency with a qualified CAP. As part of the 2045 Climate Action Plan Consistency Review Checklist provided with the Draft 2045 CAP (Appendix F to the 2045 CAP), the County will develop an offsite GHG emissions reduction program. Future development projects that cannot achieve net-zero GHG emissions or are unable to comply with all required checklist items would have the option to participate in the offsite GHG emissions reduction program. This program would allow project applicants to fund or implement local projects that reduce GHG emissions within unincorporated Los Angeles County. Such projects must not otherwise be required by law or regulation and would not have happened on the 2045 CAP's proposed schedule but for the requirements placed on the project by the 2045 CAP Checklist. If offsite GHG reduction projects are implemented via this program, then, to the extent that such projects include types of activities similar to those contemplated by the Draft 2045 CAP's measures and actions, the resulting environmental impacts would be similar to those disclosed below. Further, project applicants' CEQA documents would be required to disclose the impacts of any GHG reduction projects that are proposed to be funded or implemented.

Criterion a) Whether the Project would substantially impair an adopted emergency response plan or emergency evacuation plan.

Impact 3.18-1: Projects facilitated by the Draft 2045 CAP would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation Incorporated*)

The 2021 LACoFD Strategic Plan includes strategies to meet three overarching goals related to emergency operations, public services, and organizational effectiveness. Most of the strategies in this plan are administrative in nature and aimed at building LACoFD's capacity to respond to hazards such as wildfires. The Draft 2045 CAP is a policy document and does not propose any specific projects that would conflict with the Strategic Plan (LACoFD 2018). All projects that would be facilitated by Draft 2045 CAP measures and actions would be required to be consistent with the 2021 LACoFD Strategic Plan and any future LACoFD emergency response or planning documents.

As described in Section 3.10, *Hazards and Hazardous Materials*, under criterion f), the Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific projects or proposals that would directly conflict with adopted emergency response or emergency evacuation plans.

Neither the 2019 the County All-Hazards Mitigation Plan nor the Topanga Community Wildland Fire Evacuation Plan includes specific evacuation routes to be used in the event of a wildfire emergency (Los Angeles County Chief Executive Office 2019). However, the County

Department of Public Works maintains maps of primary freeway and secondary highway or arterial disaster routes, many of which cross through portions of the unincorporated County (LA County DPW 2012a, 2012b). Depending on their nature, projects that would be facilitated by the Draft 2045 CAP measures and actions may include activities that require construction or operation on major roadways or may require the closure of major roadways to facilitate construction activities. If construction activities within major roadways or road closures would be required to facilitate projects associated with the Draft 2045 CAP measures and actions, the activities could obstruct major roadways and could hinder evacuation procedures.

Some Draft 2045 CAP measures and actions could facilitate projects that could be located in SRAs or areas designated as FHSZs (e.g., new electric vehicle charging facilities, composting facilities, water recycling facilities, renewable energy generation facilities, and/or electric storage, transmission, and distribution infrastructure). The locations and details of projects that would be facilitated by Draft 2045 CAP measures and actions are not known at the time of this analysis; however, construction of such projects could conflict with an emergency response or evacuation plan, which would be a significant impact.

To reduce this construction-related impact, the County would implement Mitigation Measure 3.15-1 (identified in Section 3.15, *Transportation*), which requires project applicants and construction contractors to coordinate with relevant County departments and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area.

Once operational, projects facilitated by Draft 2045 CAP measures and actions would be required to be consistent with the 2021 LACoFD Strategic Plan and any future LACoFD emergency response or planning documents. Once built, projects facilitated by the Draft 2045 CAP would not obstruct major roadways and so would not hinder emergency response or evacuation plan procedures.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: Implementation of the traffic control plan required by Mitigation Measure 3.15-1 would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities associated with projects facilitated by the Draft 2045 CAP measures and actions. Because any impacts related to the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact would occur, implementing this mitigation measure would reduce the impacts to a less-than-significant level.

Criterion b) Whether the Project would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact 3.18-2: Projects facilitated by the Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and would not thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less-than-Significant Impact*)

As described above, Los Angeles County is large, and the topography, vegetation, and climate vary across the County. Large portions of the undeveloped areas of the County (particularly in the Santa Monica Mountains, Santa Clarita Valley, and Antelope Valley) include coastal sage, riparian oak woodland, and chaparral vegetation types. Oak woodlands, which are protected by policies in the General Plan's Conservation and Natural Resources elements, play an important role in reducing the risk of wildfires because the native understory of oak woodlands typically contains less flammable vegetation, and because oak trees are harder to ignite and not as prone to rapid combustion, compared to other types of trees. Oak stands that are well maintained prevent slope failure, reduce erosion, and can slow down a wildfire. Fire risk in the County is particularly high in the undeveloped areas designated as VHFHSZs. These areas typically contain chaparral ecosystems, which contain volatile oils that are particularly flammable. Additionally, chaparral communities are typically located in mountainous areas where the steep terrain can facilitate the rapid spread of wildfire (LACoFD 2021).

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific projects that could directly expose structures or occupants to wildfire risks; however, new projects facilitated by Draft 2045 CAP measures and actions could increase wildfire-related risks including in SRAs or FHSZs.

Structure fires are the second largest source of ignitions in the County. Draft 2045 CAP Strategies 5 and 6 would encourage the electrification of buildings, reduction of the use of natural gas, and retrofitting of buildings to be more energy efficient. Implementing these measures would help to update the electric and gas systems of existing buildings and reduce the number of ignitions resulting from structure fires. Additionally, some measures included in the Draft 2045 CAP, such as Measures T4, T6, T7, and T9, would expand the use of electric vehicles and reduce the use of internal combustion engines. In particular, Measure T9 would reduce the use of internal combustion engines for off-road vehicles and equipment. As mentioned above, ignitions from vehicles resulted in the third largest source of ignitions in the County. Therefore, by reducing the use of internal combustion engines, which could result in sparks leading to ignitions, implementation of the Draft 2045 measures and actions would likely aid in reducing ignitions that could lead to the spread of wildfire.

One potential outcome of residential building electrification, as encouraged by Measure E1 under Strategy 5, could be the increased use of candles, generators, grills, hibachis, barbecues, fireplaces, charcoal lighters, and chimneys in areas subject to frequent power outages. This is more likely to

occur in rural areas of unincorporated Los Angeles County. The California Public Utilities Commission (CPUC) has identified the potential increased use of these alternative light, cooking and heating fuel, and power sources during electric power outages as a serious fire risk (CPUC 2009). However, the 2045 Draft CAP's residential electrification objectives allow flexibility to maintain the use of safe, non-electrical fuels in existing residential buildings in certain areas, such as rural areas, of the County. As identified in Appendix E of the 2045 Draft CAP, the performance objectives call for electrification of 80 percent of the existing residential building stock by 2045, leaving flexibility to maintain 20 percent of residential building stock with the option of natural gas service. Additionally, Measure E1 calls for transitioning existing buildings to all-electric energy while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.

In recent years, fire conditions in California have been worsened by a historic practice of suppressing fires. Because many ecosystems in California and Los Angeles County require fire, the suppression of fire in forests and ecosystems has resulted in the buildup of fuels and in high-severity burns that result in severe damage to ecosystems, landscapes, and human communities. Measure A1 encourages the conservation and restoration of forest lands and other wildlands in the County. The restoration and preservation of forest lands within Los Angeles County would aid in restoring ecosystem function in forests in the County. If conservation and restoration projects facilitated by Measure A1 were to include vegetation management or fuel treatments to remove nonnative species and reduce fuel loads in forests, this measure would improve fuel conditions in forests in the County and would result in beneficial impacts related to reducing wildfire hazards.

Projects facilitated by the Draft 2045 CAP measures and actions that could include housing would likely be provided in urban areas that are already developed, and not in undeveloped areas with high fire risk, as such projects are intended to increase density near high quality transit areas and mixed-use areas to reduce vehicle miles traveled. Additionally, the General Plan includes policies to discourage development in areas with safety hazards such as wildfire risks. Therefore, to accomplish the goals of the Draft 2045 CAP and be consistent with the General Plan, projects facilitated by the Draft 2045 CAP measures and actions that would include housing would likely be built in urban infill areas. These projects are not likely to exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

The Draft 2045 CAP measures and actions could facilitate projects that could be located in areas designated as FHSZs or SRAs (e.g., new electric vehicle charging facilities, composting facilities, water recycling facilities, or renewable generation facilities). Depending on the location and site-specific conditions of future projects, such projects could increase the risk of an ignition during construction as a result of the use of equipment, vehicles, and tools and the storage of fuels and other flammable materials.

However, any future projects with occupants would be required to comply with Title 32 of the County Code (the County Fire Code). Compliance with the County Fire Code would ensure that any new development in the unincorporated areas of the County would occur in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet

flow standards (in the event that a fire needs to be extinguished). Compliance with the County Fire Code would also ensure that developments within mapped VHFHSZs are properly inspected, obtain the applicable permits, abide by fire prevention techniques, and maintain brush clearance in wildfire hazard areas. The operation of most facilities facilitated by Draft 2045 CAP measures and actions would not substantially increase wildfire risk due to slope, prevailing winds, and other factors, because projects would be required to comply with the County Building Code, which identifies building fire safety requirements such as sprinklers, and resistance standards.

Furthermore, future projects facilitated by Draft 2045 CAP measures and actions would be required to comply with the following General Plan policies, which are intended to reduce the potential for development to be located in high fire hazard areas and encourage mitigation to ensure that developments are built to be fire resistant and have the capacity to ensure proper ingress, egress, and sufficient fire suppression resources onsite:

Policy S 3.1: Discourage high density and intensity development in VHFHSZs.

Policy S 3.2: Consider climate change implications in planning for FHSZs.

Policy S 3.3: Ensure that the mitigation of fire related property damage and loss in FHSZs limits impacts to biological and other resources.

Policy S 3.4: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire-resistant building materials and vegetation.

Policy S 3.5: Encourage the use of fire-resistant vegetation that is compatible with the area's natural vegetative habitats in fuel modification activities.

Policy S 3.6: Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in FHSZs.

Policy S 3.7: Consider siting and design for developments located within FHSZs, particularly in areas located near ridgelines and on hilltops, to reduce the wildfire risk.

Policy S 3.8: Support the retrofitting of existing structures in FHSZs to help reduce the risk of structural and human loss due to wildfire.

Compliance with the County Fire Code, County Building Code, and the General Plan would reduce the risk that future projects facilitated by the Draft 2045 CAP measures and actions would occur in fire-prone areas and would ensure that projects contain proper fire prevention measures and capacity for fire suppression during construction and operation. Compliance with these codes and policies would significantly reduce the risks of wildfires from projects facilitated by the Draft 2045 CAP measures and actions that could expose project occupants to the risks from the spread of wildfire. Requisite compliance with the independently enforceable provisions of laws, regulations, plans and standards (including those set forth in the County Fire Code, County Building Code, and the General Plan) would assure that the Draft 2045 CAP would result in a less-than-significant impact related to the exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Mitigation Measure 3.18-3, described under Impact 3.18-3, would further reduce this less-than-significant impact.

Mitigation: None required.

Criterion c) Whether the Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Impact 3.18-3: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment. (*Less than Significant with Mitigation Incorporated*)

The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific project proposal, and therefore would not result in any direct increases in wildfire risk associated with the installation or maintenance of infrastructure. Individual projects facilitated by Draft 2045 CAP measures and actions could require fuel breaks, emergency water sources, composting facilities, power lines, or other associated infrastructure that could exacerbate fire hazard risk or may result in temporary or ongoing impacts on the environment, which would be a significant impact.

To reduce this impact, the County would implement Mitigation Measure 3.18-3, which would require project applicants for projects under the County's permitting authority to prepare a fire protection plan to ensure that wildland fire-related hazards would not be exacerbated by installation or maintenance of infrastructure associated with future projects facilitated by the Draft 2045 CAP measures and actions that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment. Mitigation measures would apply only if specific projects have potentially significant impacts.

Projects facilitated by Draft 2045 CAP measures and actions may also include development of electric distribution and transmission infrastructure, e.g., to connect utility-scale solar projects in the Antelope Valley to the electrical grid, or to serve increased electrical load resulting from building electrification measures. Some of this transmission and distribution infrastructure would be owned and operated by individual project developers or other entities subject to the County's land use jurisdiction. For these facilities, Mitigation Measure 3.18-3 would ensure that wildfire impacts would be mitigated to a less-than-significant level during both construction and operation.

Much of this transmission and distribution infrastructure would be owned and operated by the major investor-owned utility in the Los Angeles County area, Southern California Edison (SCE), and would therefore come under the regulatory authority of CPUC. The existing CPUC regulations that would govern SCE electrical infrastructure during construction and/or operation include: General Order 95, under which fire safety requirements for overhead electrical lines include an auditable maintenance program, frequent inspections, vegetation management to maintain minimum clearances, and increased wind load requirements in high-fire-threat districts; General Order 165, which establishes requirements for the inspection of electric distribution and transmission facilities that are not contained within a substation; and General Order 166, which

requires that investor-owned utilities develop a fire protection plan with measures that the electric utility will implement to mitigate the threat of power-line fires. Additionally, California Public Utilities Code Section 8386 requires SCE (among other electrical corporations) to annually prepare and submit a wildfire mitigation plan to the CPUC for approval. In compliance with this code section and with Standard 1.E of General Order 166, SCE maintains an annually updated Wildfire Mitigation Plan (SCE 2022). While the County would not have the authority to apply Mitigation Measure 3.18-3 to projects not subject to its jurisdiction, the provisions of the existing regulatory framework for electrical infrastructure subject to CPUC jurisdiction (many of which are similar to Mitigation Measure 3.18-3), would ensure that risks of fire from SCE transmission and distribution infrastructure associated with projects facilitated by the Draft 2045 CAP measures and actions would not be substantial, resulting in a less than significant impact.

Projects facilitated by Draft 2045 CAP measures and actions may also include development of utility-grade lithium ion or other types of battery energy storage system facilities (e.g., for utility-scale solar projects in the Antelope Valley). If the energy storage is not properly designed, then battery units or other storage systems could heat to the point of thermal runaway (i.e., failure of a single cell within the system, cascading into a fire and explosion). This technology requires cooling of the battery components (cells/modules). Based on a range of utility-grade battery storage alternatives evaluated for a recent power line and substation project in Southern California (CPUC 2018), cooling of the battery components would be required by maintaining the battery enclosure room temperature within a specific temperature range (around 68 degrees Fahrenheit) using traditional air conditioner units (compressor-based refrigerant systems). The battery enclosures would provide an additional level of protection by providing containment in the event of a fire. In accordance with Los Angeles County Fire Code Section 1207, fire prevention and control features such as electronic monitoring systems, alarms, and circuit breakers would be incorporated into the design to lower the possibility of a thermal runaway chain reaction and an associated significant hazard to the public or the environment due to a reasonably foreseeable upset. Furthermore, implementation of Mitigation Measure 3.18-3 would ensure that impacts associated with wildland fire hazards during construction and operation of a utility-scale battery storage facility would be less than significant. Mitigation measures would apply only if specific projects have potentially significant impacts.

In addition to any project-specific wildfire-related mitigation recommendations, any new development within Los Angeles County (including the unincorporated areas) would be subject to Title 32 of the County Code (the County Fire Code). Compliance with the County Fire Code would ensure that any new development in the unincorporated areas of the County would occur in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Compliance with the County Fire Code would also ensure that developments within mapped VHFHSZs are properly inspected, obtain the applicable permits, and abide by fire prevention techniques.

Mitigation Measure 3.18-3: Fire Safety During Construction and Operation. Future applicants and/or their contractors shall prepare and implement project-specific fire protection plans for projects located in the VHFHSZ to ensure that wildfire-related hazards are not exacerbated by projects facilitated by the Draft 2045 CAP measures or goals. The applicant shall prepare and submit a fire protection plan to the County for

review and approval at least 60 days before the start of construction activities. The fire protection plan shall include or require, but not limited to, the following measures along with Fire Code compliance, as applicable to address construction and operation:

- A training module within the pre-construction worker training (e.g., Worker Environmental Awareness training, safety training, fire equipment and procedures) on the specifics of the approved plan for all construction crew members before the start of construction.
- List project site roles and responsibilities and identify appropriate emergency notification procedures and site-specific emergency response and evacuation measures and routes that would be followed during emergency situations. All construction vehicles shall have fire suppression equipment.
- Instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site.
- Protocol for the project contractor and/or the applicant to perform visual inspections daily to ensure that all ignition risks are reduced or eliminated before leaving the worksite. Identify fire safety and prevention measures for project-specific infrastructure that can ignite fires, such as power lines, battery storage facilities, and composting facilities.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the risk of fire from infrastructure associated with projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD, and that the applicant and its contractors would implement fire safety measures to prevent wildland fire and would be prepared to respond immediately if a fire should ignite. Therefore, this impact would be reduced to a less-than-significant level.

Criterion d) Whether the Project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Impact 3.18-4: Projects facilitated by the Draft 2045 CAP would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less-than-Significant Impact*)

As described under criterion b), the portions of the County that are designated as FHSZs are characterized by steep slopes that could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Also, as further described under criterion b), the Draft 2045 CAP would not directly result in any projects that would increase wildfire risk or alter slopes or drainage patterns in a manner that would increase the risk for post-fire downslope or downstream flooding or landslides. However, some projects facilitated by the Draft 2045 CAP measures and actions, depending on their locations and site-specific conditions, could increase the risk of wildfire and could expose people or structures to downslope or downstream flooding, post-fire flooding, or landslides.

Many projects facilitated by Draft 2045 CAP measures and actions would involve retrofitting of existing buildings or the construction of housing, charging facilities, etc., that would generally be located in developed urban environments, and not on lands with a high wildfire risk. However, the Draft 2045 CAP measures and actions could facilitate projects that could be located in areas designated as FHSZs (e.g., new electric vehicle charging facilities, composting facilities with large mulch berms for decomposition, water recycling facilities, or renewable generation facilities). As described above, all new development is required to comply with the County Fire Code, County Building Code, and General Plan policies, reducing the extent to which future projects would expose people or structures to post-fire slope instability risk. As discussed in Section 3.8, *Geology and Soils* (under criterion a), subpart iv), and under criterion c)), if projects facilitated by Draft 2045 CAP measures and actions were proposed in susceptible areas, required geotechnical design criteria would be incorporated into geotechnical reviews to verify the stability of nearby slopes and soils, and to provide recommendations intended to protect developments from causing or being affected by landslides, as required by existing regulations. Therefore, future projects and associated infrastructure facilitated by the Draft 2045 CAP measures and actions would have less-than-significant impacts related to downstream flooding or landslides.

Requisite compliance with applicable laws, regulations, and ordinances would assure that projects implementing Draft 2045 CAP measures and actions would result in a less-than-significant impact.

Mitigation: None required.

Criterion e) Whether the Project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impact 3.18-5: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. (*Less than Significant with Mitigation Incorporated*)

According to fire hazard mapping conducted by CAL FIRE as part of the Fire and Resource Assessment Program, several areas of the unincorporated County are classified as VHFHSZs (CAL FIRE 2012). The Draft 2045 CAP is a policy document that is intended to reduce the unincorporated County's GHG emissions, and it would support development already allowed under the General Plan's land use assumptions in the 2021–2029 Housing Element. The Draft 2045 CAP does not include any specific projects that would directly expose structures or occupants to a significant risk of loss, injury, or death involving wildland fires.

As described under criterion b), new development would be required to comply with the County Fire Code, the County Building Code, and policies in the General Plan requiring that fire prevention measures be incorporated into development and that developments include proper ingress, egress, and equipment to respond to fire hazards. Compliance with these requirements would ensure that any new development in the unincorporated areas of the County would occur in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished).

Projects that would be facilitated by the Draft 2045 CAP measures and actions may involve composting facilities, water recycling facilities, or renewable energy generation facilities, which could be located in areas designated as FHSZs. Depending on the location and site-specific conditions, such future projects and associated infrastructure could increase the risk of an ignition during construction and operation that could exacerbate wildland fire hazards, which would be a significant impact.

To reduce this impact, the County would implement Mitigation Measure 3.18-3 (identified above), which requires project applicants to prepare a fire protection plan to ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by the Draft 2045 CAP measures and actions.

Mitigation: Implement Mitigation Measure 3.18-3.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the risks of fire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE, and that the applicant and its contractors would implement fire safety measures to prevent wildland fire and would be prepared to respond immediately if a fire should ignite. Therefore, this impact would be reduced to a less-than-significant level.

3.18.2.4 Cumulative Impacts

The geographic scope for cumulative impacts related to wildfire consists of the areas within or adjacent to the County that have been mapped by CAL FIRE as Very High, High, and Moderate FHSZs, and SRAs. As identified in Section 3.18.1.2, *Environmental Setting*, the increasing severity of wildfires across the state and in the unincorporated areas of the County has demonstrated that there is an existing adverse condition with respect to wildfires. This is due in part to increasingly drier conditions caused by recent droughts, and is also driven by increased development in the wildland-urban interface and historic fire suppression in forests, which has led to a disrupted fire regime.

Criterion a)

Impact 3.18-6: Projects facilitated by the Draft 2045 CAP could result in significant cumulative impacts with regard to impairing an adopted emergency response plan or emergency evacuation plan. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

Significant cumulative impacts related to implementation of an emergency response plan or emergency evacuation plan could occur if construction activities for projects facilitated by Draft 2045 measures and actions would cause road closures or impacts on major roadways, that would then combine with similar impacts from the construction of other past, present, and reasonably foreseeable future projects. The locations and details of projects facilitated by Draft 2045 measures and actions are unknown at this time; however, as analyzed in Section 3.18.2.3 under criterion a), such projects could conflict with an emergency response or evacuation plan.

If construction of other past, present, and/or reasonably foreseeable future projects that would affect major roadways were to occur in the same vicinity and time as the projects facilitated by Draft 2045 measures and actions, the cumulative impact could be significant, and the Project's contribution would be cumulatively considerable.

To reduce the Project's contribution to the significant cumulative impact, the County would implement Mitigation Measure 3.15-1 (identified in Section 3.15, *Transportation*). This measure requires applicants and construction contractors for projects facilitated by Draft 2045 measures and actions to coordinate with relevant County departments and emergency service providers to develop a traffic control plan to reduce impacts of construction traffic on roadway operations, emergency responders, and public safety in the surrounding area.

Mitigation: Implement Mitigation Measure 3.15-1.

Significance after Mitigation: The traffic control plan required by Mitigation Measure 3.15-1 would avoid or substantially reduce the contribution of projects facilitated by the Draft 2045 CAP measures and actions to impairment of an emergency response or evacuation plan to less than cumulatively considerable. The cumulative impact on emergency access and emergency response would be reduced to a less-than-cumulatively considerable and therefore less-than-significant level.

Criterion b)

Impact 3.18-7: Projects facilitated by the Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate cumulative wildfire risks, and would not thereby expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less-than-Significant Cumulative Impact*)

As analyzed in Section 3.18.2.3 under criterion b), the implementation of Draft 2045 CAP measures and actions would result in a less-than-significant impact with regard to exacerbating wildfire risks due to slope, prevailing winds, and other factors that would thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Some Draft 2045 CAP measures are likely to improve adverse wildfire conditions in the County by restoring forest lands and reducing ignition sources.

Projects facilitated by the Draft 2045 CAP measures and actions that could include housing would likely be developed in urban areas that are already developed, and not in undeveloped areas with high fire risk, as such projects are intended to increase density near high quality transit areas and mixed-use areas to reduce vehicle miles traveled. Additionally, the General Plan includes policies to discourage development in areas with safety hazards such as wildfire risks. Therefore, to accomplish the goals of the Draft 2045 CAP and be consistent with the General Plan, projects facilitated by the Draft 2045 CAP measures and actions that would include housing would likely be built in urban infill areas. These projects would not likely exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. For discussions of cumulative impacts related to specific types of uninhabited project infrastructure that may exacerbate fire risks, see Impacts 3.18-8 and 3.18-10.

Similarly, all other development, including past, present, and future projects, would be required to comply with these policies and regulations protecting project occupants from wildfire hazards. Such compliance would ensure that proper fire safety measures would be employed during project construction; that sufficient ingress, egress, and wildfire suppression equipment would be present on-site; and that building materials and design, landscape design, and vegetation management would be sufficient to reduce the risk of wildfire to project occupants. Therefore, cumulative impacts would not be significant, and impacts of the Draft 2045 CAP measures and actions would not be cumulatively considerable, and therefore would be in less-than-significant. Mitigation Measure 3.18-3 would further reduce this impact.

Mitigation: None required.

Criterion c)

Impact 3.18-8: Projects facilitated by the Draft 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

A cumulative impact relative to this criterion could result if a project implementing Draft 2045 CAP measures and actions would require additional infrastructure (e.g., fuel breaks, emergency water sources, composting facilities, power lines, battery storage, or other utilities) that would be located in areas designated as FHSZs near another adjacent project that also requires such infrastructure. As analyzed in Section 3.18.2.3 under criterion c), such infrastructure could exacerbate fire risk if located in areas designated as FHSZs and SRAs. If construction of other past, present, and/or reasonably foreseeable future projects would include similar infrastructure that could exacerbate fire risk in areas designated as FHSZs and SRAs, the cumulative impact could be significant.

To reduce the Project's contribution to the significant cumulative impact, the County would implement Mitigation Measure 3.18-3 (identified above), which requires applicants and construction contractors for projects facilitated by Draft 2045 measures and actions subject to County jurisdiction to prepare a fire prevention plan to ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by the Draft 2045 CAP measures and actions.

Mitigation: Implement Mitigation Measure 3.18-3.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD, fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. This measure would reduce the contribution of projects facilitated by Draft 2045 CAP measures and actions to a less-than-cumulatively considerable, and therefore to a less-than-significant level.

Criterion d)

Impact 3.18-9: Projects facilitated by the Draft 2045 CAP would not expose people or structures, either directly or indirectly, to significant cumulative risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less-than-Significant Cumulative Impact*)

A cumulative impact could occur if projects facilitated by Draft 2045 CAP measures and actions would result in changes to post-fire slope stability or drainage patterns that could combine with similar impacts from nearby past, present, and future cumulative projects and could expose people or structures to risks as a result of runoff, post-fire landslides, or flooding. As described in Section 3.18.2.3 under criterion d), the Draft 2045 CAP would have a less-than-significant impact with respect to this criterion.

The locations and designs of individual projects that would facilitate the Draft 2045 CAP measures and actions are not known at this time. In general, future projects would be required to comply with the General Plan, which requires avoiding development in areas with safety hazards such as wildfire, landslide, and flooding risks, and on hillsides. Additionally, most projects facilitated by the Draft 2045 CAP measures and actions would involve retrofitting of existing buildings or development in urban areas and would not alter wildfire risk, slopes, or existing drainage patterns in a manner that would affect post-fire floods or landslides.

However, the Draft 2045 CAP measures and actions could facilitate projects that could be located in areas designated as FHSZs (e.g., new electric vehicle charging facilities, composting facilities, water recycling facilities, or renewable generation facilities). As described in Section 3.18.2.3 under criterion d), all new development is required to comply with the County Fire Code, California Building Code, and General Plan policies, reducing the extent to which future projects would expose people or structures to post-fire slope instability risk. Additionally, as discussed in Section 3.8, *Geology and Soils* (under criterion a), subpart iv), and under criterion c)), if projects facilitated by Draft 2045 CAP measures and actions were proposed in susceptible areas, required geotechnical design criteria would be incorporated into required geotechnical reviews to verify the stability of nearby slopes and soils, and to provide recommendations intended to protect developments from causing or being affected by landslides.

Similarly, all other development, including past, present, and future projects, must comply with state and County Fire Code, and the County Building Code. Compliance with these independently enforceable requirements would ensure that cumulative impacts would not be significant, and that impacts of Draft 2045 CAP measures and actions would not be cumulatively considerable and would result in a less-than-significant cumulative impact with respect to this criterion. Therefore, future projects and associated infrastructure facilitated by the Draft 2045 CAP measures and actions would have less-than-significant impacts associated with downstream flooding or landslides.

Mitigation: None required.

Criterion e)

Impact 3.18-10: Projects facilitated by the Draft 2045 CAP could expose people or structures, either directly or indirectly, to a significant cumulative risk of loss, injury, or death involving wildland fires. (*Less-than-Significant Cumulative Impact with Mitigation Incorporated*)

A cumulative impact could occur if projects facilitated by Draft 2045 CAP measures and actions would result in a risk of loss, injury, or death involving wildland fires that could combine with similar impacts from nearby past, present, and future cumulative projects. Projects facilitated by Draft 2045 CAP measures and actions may involve composting facilities, water recycling facilities, or renewable energy generation facilities located in areas designated as FHSZs. Depending on site-specific locations and conditions, such future projects and associated infrastructure, combined with other nearby similar past, present, and future cumulative projects, could increase the risk of an ignition during construction and operation, thus potentially exacerbating wildland fire hazards, which would be a significant cumulative impact.

To reduce this impact, the County would implement Mitigation Measure 3.18-3 (identified above), which requires project applicants to prepare a fire protection plan to ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by the Draft 2045 CAP measures and actions.

Mitigation: Implement Mitigation Measure 3.18-3.

Significance after Mitigation: Implementation of Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. This measure would reduce the Project's incremental contribution to the cumulative impact to less than cumulatively considerable, and this cumulative impact would be reduced to a less-than-significant level.

CHAPTER 4

Alternatives

4.1 Introduction to Alternatives

CEQA requires a lead agency to analyze a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic objectives of the project while substantially reducing or eliminating significant environmental impacts. CEQA also requires an EIR to evaluate a “no project” alternative to allow decision-makers to compare impacts of approving a project with the impacts of not approving it. See CEQA Guidelines Section 15126.6. This chapter describes the key considerations used to identify and screen potential alternatives, explains why some potential alternatives were eliminated from further consideration, and describes the alternatives that were carried forward for more detailed analysis.

This chapter also compares the environmental impacts of the Project and alternatives evaluated in detail. This comparison is based on the analysis of environmental impacts of the Project, provided in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, and the alternatives that were carried forward for more detailed review in this Chapter 4.

4.2 Alternatives Development and Screening

The County screened and thereafter selected alternatives to be discussed based on the following key provisions of the CEQA Guidelines (California Code of Regulations Title 14, Section 15126.6):

- The discussion of alternatives shall consider a reasonable range of potentially feasible alternatives to the proposed project or its location that are capable of avoiding or substantially lessening any significant impacts of the proposed project, even if these alternatives would impede to some degree the attainment of the proposed project objectives, or would be costlier.
- The No Project Alternative shall be evaluated, along with its impacts. The no project analysis shall discuss the existing conditions at the time the notice of preparation was published, as well as what would be reasonably expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure and community services.
- The range of alternatives required in an EIR is governed by a “rule of reason,” meaning the EIR must evaluate only those alternatives necessary to permit a reasoned choice.
- An EIR need not consider an alternative whose impacts cannot be reasonably ascertained and whose implementation is remote and speculative.

Among the factors that may be considered in determining whether to carry a potential alternative forward for more detailed consideration in an EIR are:

1. Whether the alternative would meet most of the basic project objectives. Section 2.3.1, *Project Purpose and Objectives*, in Chapter 2 identifies five Project objectives. Any alternative determined not to meet at least three of the five objectives was not carried forward for more detailed review.
2. Whether the alternative would be potentially feasible, where *feasible* means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (Public Resources Code Section 21061.1; CEQA Guidelines Sections 15126.6 and 15364).¹ Any alternative determined to be infeasible was not carried forward for more detailed review.
3. Whether the alternative would be able to avoid or substantially lessen any of the potentially significant impacts of the project. Significant impacts of the Project are identified in Chapter 3. Any alternative determined not to avoid or substantially lessen the significant impacts of the Project was not carried forward for more detailed review.
4. Whether implementation of the alternative is remote or speculative. For purposes of this analysis, *remote* means unlikely or having only a slight chance of occurring, and *speculative* means unsupported, theoretical, or based on conjecture or guesswork. Any potential alternative determined to be remote or speculative was not carried forward for more detailed review.

In addition to these screening criteria, the County considered input received during the scoping period for the EIR as part of the alternatives development process. Written and oral comments from agencies, organizations, and the public were received during the scoping period.

Appendix A.5, *Scoping Input Received*, includes all comments received during the scoping period. Comments relevant to alternatives suggest that the EIR consider a No Project alternative and an alternative that would achieve 100 percent decarbonization (i.e., carbon neutrality), include a more aggressive timeline to achieve carbon neutrality, comply with current regulations but go no farther, and/or consider the feasibility of zero emissions for many sectors rather than carbon neutrality. Scoping comments also suggest that the EIR consider an alternative that would avoid impacts on aquatic and riparian resources (e.g., one that would not impede, alter, or otherwise modify existing surface flow, watercourse and meander, and water-dependent ecosystems and natural communities and that considers elevated crossings of watercourses).

Informed by and in response to the scoping input received, this EIR initially considered a Carbon Neutrality by 2045 Alternative (see Section 4.3.1); a More Aggressive Timeline to Carbon Neutrality Alternative (see Section 4.3.2); a Minimize Loss of Carbon Sequestration Caused by Development Alternative (see Section 4.3.3); a Substantially Reduced Vehicle Miles Traveled Alternative (see Section 4.3.4); and an Aquatic Impact Avoidance Alternative (see Section 4.3.5). The EIR also evaluates a No Project Alternative (see Section 4.4.1), a Carbon Offset Alternative

¹ A sufficient demonstration of financial infeasibility requires more than a showing that the alternative would be more expensive or less profitable; it requires evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project. *Citizens of Goleta Valley* (1998) 197 Cal. App. 3d. 1167, 1181.

(Alternative 1; see Section 4.4.2), and a Zero Net Energy Buildings Alternative (Alternative 2; see Section 4.4.3).

In preparing this Recirculated Draft PEIR, the County further considered potential alternatives to the Draft 2045 CAP, including whether to carry forward for more detailed review a complete phase-out of oil and gas operations (see Section 4.3.6); a limited-scope CAP alternative that would include only the measures and actions needed to achieve the Draft 2045 CAP's GHG emission reduction targets for 2030, 2035, and 2045 (see Section 4.3.7); and an alternative that would include lower GHG emissions reduction targets than the Project and still meet the minimum needed to align with California's codified statewide targets for 2030 and 2045, recognizing that "align with" does not necessarily "equal" (see Section 4.4.4).

4.3 Alternatives Rejected from Detailed Consideration

4.3.1 Carbon Neutrality Target by 2045 Alternative

Successful implementation of the Draft 2045 CAP's GHG emissions reduction strategies and measures would not be enough for the County to achieve carbon neutrality by 2045. In the year 2045, residual emissions of 850,000 metric tons of carbon dioxide equivalent (MTCO_{2e}) would still be originating from the following sources:

- Buildings and energy industries that could reduce but not eliminate natural gas (approximately 170,000 MTCO_{2e}).
- Light-duty vehicles and heavy-duty trucks (approximately 190,000 MTCO_{2e}).
- Fluorinated products/product use (approximately 285,000 MTCO_{2e}).
- Solid waste disposal (approximately 86,000 MTCO_{2e}).
- Wastewater treatment (approximately 73,000 MTCO_{2e}).
- Miscellaneous other sources (approximately 32,000 MTCO_{2e}).
- Off-road equipment (approximately 27,000 MTCO_{2e}).
- Fertilizer use (approximately 24,000 MTCO_{2e}).

Please refer to Chapter 2 of the Draft 2045 CAP for more information.

The County expects that new technologies that would further reduce these residual emissions would be established and become more commercially available over the next 25 years. However, such technological advancements necessary to achieve a target of carbon neutrality by 2045 are not currently available, and it would be speculative to assume that they would become available within the next 25 years. Therefore, the impacts cannot be reasonably ascertained at this stage. Such technologies may include reliable renewable energy sources for industrial and manufacturing facilities; low-cost, scalable zero-emission engine technology for heavy-duty trucks and off-road equipment; feasible strategies for obtaining zero-waste landfilling; widespread distribution and use of low-global-warming-potential refrigerants and consumer

products; and large-scale, cost-effective carbon removal technologies, including carbon capture and sequestration and direct air capture. To obtain carbon neutrality by 2045, it is expected that the following actions would need to occur:

- Electrifying 90–100 percent of buildings and facilities in the County, including residential, commercial, industrial, and energy industries.
- Achieving zero (or near-zero) waste landfilling.
- Having more than 90 percent of the Countywide vehicle fleet, including light-duty passenger vehicles and heavy-duty trucks, be zero-emission vehicles.
- Eliminating all oil and natural gas operations in the County.
- Transitioning all refrigerants, fire suppressants, and consumer products used within the County to substitutes with extremely low (or zero) global warming potential.
- Replacing nearly all off-road equipment and off-road vehicles (including locomotives) with electric, green hydrogen, or other zero-emission engine technologies.
- Capturing nearly all fugitive wastewater treatment process emissions and converting to fuel.
- Eliminating nitrous oxide emissions from fertilizer application.
- Implementing statewide, regional, and local carbon removal and carbon capture and sequestration strategies to offset all remaining residual emissions.

What would be required to achieve a target of carbon neutrality by 2045 would be beyond what the County alone could implement, and it would be speculative to assume that technological advancements to achieve carbon neutrality would become available within the next 25 years. Accordingly, a Carbon Neutrality Target by 2045 Alternative was not carried forward for more detailed evaluation because it is speculative and potentially infeasible: There is no present basis to assume that it could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

4.3.2 More Aggressive Timeline to Carbon Neutrality Alternative

As discussed in Section 4.3.1, an alternative that would achieve carbon neutrality by 2045 was not carried forward for more detailed evaluation because it is speculative and currently infeasible: There is no present basis to assume that it could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. An even more aggressive timeline to achieving carbon neutrality than 2045 also was not carried forward for more detailed review because it would be even more speculative to assume that the technological advancements needed to achieve carbon neutrality, in addition to those identified above, would become available in time.

4.3.3 Minimize Loss of Carbon Sequestration Caused by Development Alternative

Under a Minimize Loss of Carbon Sequestration Caused by Development Alternative, the County would reduce the generation of GHG emissions by enacting a moratorium on new development or other disturbance of areas of existing high carbon sequestration capacity in unincorporated areas of the County, thereby avoiding releases of carbon currently sequestered in such areas back into the atmosphere.

Commercial and residential development contributed approximately 13 percent of total U.S. GHG emissions by sector in 2020 (U.S. EPA 2022b). Between 1982 and 2017, urban land cover in the United States from development grew by approximately 44 million acres, bringing the total to approximately 116 million acres and representing a 61 percent increase; stated another way, 38 percent of developed land in the country (including Puerto Rico and the Virgin Islands) was developed during the last 35 years (USDA 2020). By contrast, forests, other vegetation, and soils store (or “sequester”) carbon. These carbon stores are at risk because of the conversion of sequestration lands to other uses. As explained in a U.S. Department of Agriculture report entitled *United States Mid-Century Strategy for Deep Decarbonization*, “The largest driver of forest loss in the United States in recent decades has been residential development” (USDA 2016).

One way to expand carbon sequestration is to directly control land use via regulation: USDA projections indicate that reducing the rate of development-related conversion of urbanization could lead to large carbon storage benefits (USDA 2016). For example, a 20 percent reduction in urban growth over the next 30 years is projected to augment carbon storage by about 40 million MTCO_{2e} per year through 2050, while avoiding the loss of existing forest carbon stock (USDA 2016).

This potential alternative was not carried forward because it would not meet most of the basic Project objectives. More specifically, a Minimize Loss of Carbon Sequestration Caused by Development Alternative would not implement the climate action policies of the General Plan (Objective 1); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (“qualified CAP”) (Objective 5).

The Minimize Loss of Carbon Sequestration Caused by Development Alternative has also been rejected from more detailed consideration because it is legally infeasible: it would not permit the County to fully meet its Regional Housing Needs Allocation (as mandated by state housing law) within the unincorporated areas (SCAG 2021).

4.3.4 Substantially Reduced Vehicle Miles Traveled Alternative

The Substantially Reduced Vehicle Miles Traveled Alternative would reduce GHG emissions from vehicle miles traveled (VMT) by motor vehicles in the unincorporated areas by approximately 20 percent compared to the adjusted business-as-usual (BAU) scenario, as

compared to the Draft 2045 CAP's reduction in VMT by approximately 4 percent compared to the adjusted BAU scenario.

The transportation sector is the leading contributor to GHG emissions in the state. GHG emissions from transportation come primarily from burning fossil fuels for motor vehicles (cars and trucks), ships, trains, and planes (USEPA 2021a). More than 90 percent of the fuel used for transportation is petroleum-based, which includes primarily gasoline and diesel (USEPA 2021a). Because the County's regulation of ships, trains, and planes would be preempted by federal law, the County focused its consideration of a potential Substantially Reduced Vehicle Miles Traveled Alternative on reducing motor vehicle emissions.

The Draft 2045 CAP includes numerous measures and actions that require and encourage reductions in VMT within the confines of the 2035 General Plan (see Strategy 2, Increase Densities and Diversity of Land Uses Near Transit; Strategy 3, Reduce Single-Occupancy Vehicle Trips; and Strategy 4, Institutionalize Low-Carbon Transportation). Through these measures, the Draft 2045 CAP would reduce total VMT in the unincorporated County by 4 percent for each future-year adjusted BAU scenario (2030, 2035, and 2045).

This Substantially Reduced Vehicle Miles Traveled Alternative would go farther: a 20 percent reduction in VMT compared to the adjusted BAU scenario. To achieve this, the alternative would advance aggressive policies to maximize building densities at locations served by public transit and to locate residences near jobs, shopping, and other services to reduce automobile dependency; and by enhancing bicycle, equestrian, and pedestrian programs as well as carpooling and rideshare programs. This would require amending the General Plan's Land Use and Housing Elements to incorporate additional, more aggressive policies, and could require rezoning some parcels to allow the siting of new combinations of land uses.

The Substantially Reduced Vehicle Miles Traveled Alternative was not carried forward for more detailed review because its implementation would be remote or speculative. Total VMT in California and in the County is the product of myriad individual decisions made daily by households and businesses. More specifically, as stated by the University of California Institute of Transportation Studies (2021):

Household decisions about where, when, how often, and by what mode to travel determine their VMT; these decisions are conditioned by longer-term decisions about residential location and car ownership. Business decisions about shipments of material inputs and delivery of products or services determine VMT of goods movement. Business decisions about location influence household travel, for employees and customers, as do policies on remote work and online shopping. In other words, VMT is the product of the complex system of modern living.

Achieving a substantial reduction in VMT would require a major shift in decision-making by households and businesses alike, beyond the ability of the County to implement. Significantly improved transit and alternative transportation infrastructure, widespread and inexpensive access to single-occupancy vehicle alternatives, and substantial financial incentives to use these transportation alternatives or (alternatively) providing considerable disincentives to drive could all be part of the solution. However, there is no basis to assume that this alternative could be

accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. The time and expense required to implement this alternative, such as substantially upgrading transportation infrastructure, would compete with the County's pursuit of other community priorities, such as health, bridging the digital divide, child welfare, affordable housing, justice reform, and support for immigrant residents and their families (Los Angeles County 2022a, 2022b).

4.3.5 Aquatic Impact Avoidance Alternative

The County initially considered an Aquatic Impact Avoidance Alternative in response to input received during the scoping period that suggested an alternative that would: (1) avoid impacts on aquatic and riparian resources by precluding the impediment, alteration, or other modification of existing surface flow, watercourses, and meander; (2) avoid impacts on water-dependent ecosystems and natural communities; and (3) consider elevated crossings of watercourses.

The County reviewed and commented on the December 2021 draft of the California Natural Resources Agency's plan *Pathways to 30x30: Accelerating Conservation of California's Nature*. The December 2021 draft was finalized and issued April 22, 2022, just prior to publication of this Draft EIR (California Natural Resources Agency 2022). Because the final version was not available when this EIR was being prepared, the County considered the December 2021 draft as well as the U.S. Environmental Protection Agency's (USEPA's) and the U.S. Army Corps of Engineers' (USACE's) mitigation requirements under Clean Water Act Section 404 in developing this Aquatic Impact Avoidance Alternative.

The California Natural Resources Agency proposed the draft Pathways to 30x30 framework in response to Governor Gavin Newsom's Executive Order N-82-20, which elevated the role of the state's natural and working lands in "achieving carbon neutrality and building climate resilience" by establishing a goal of conserving 30 percent of California's lands and coastal waters by 2030 (California Natural Resources Agency 2022). The framework recognizes that the conservation of intact ecosystems, like wetlands, sequesters atmospheric carbon, safeguards clean water and other important resources, and can protect people and nature from the impacts of climate change (California Natural Resources Agency 2022). Elements of the draft Pathways to 30x30 framework were carried forward into the Aquatic Impact Avoidance Alternative. This alternative includes the restoration of riparian areas and wetlands on public and private lands throughout the County's unincorporated areas; encourages conservation easements that provide financial incentives to public and private landowners in the unincorporated areas to conserve wetlands and other aquatic resources; and focuses on restoring degraded seascapes and priority coastal habitats.

The Aquatic Impact Avoidance Alternative has not been carried forward for more detailed review because it would not meet most of the basic Project objectives. Such an alternative would not implement the climate action policies of the General Plan (Objective 1); would not identify appropriate GHG emissions reduction targets that closely align with state and local climate goals (Objective 2); would not provide a road map to achieve GHG reductions to meet the GHG emissions reduction targets (Objective 3); and would not encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan (Objective 4).

This alternative also was not carried forward for more detailed review because its implementation is remote or speculative. As acknowledged in the draft Pathways to 30x30 framework, “Currently, demand for conservation easements outstrips available funding and the technical review process needed for recording easements can be complex and time consuming” (California Natural Resources Agency 2022). Opportunities to successfully address those challenges have not been developed; therefore, the impacts of implementing the alternative cannot be reasonably ascertained.

Further, this alternative would not avoid or substantially lessen a significant impact of the Project. As analyzed in the context of Impact 3.11-3 in Section 3.11, *Hydrology and Water Quality*, approval of the Draft 2045 CAP would not substantially alter the existing drainage pattern of the site or area, alter the course of a stream or river, or add impervious surfaces in a manner that would result in a significant impact. As analyzed in the context of criterion c) in Section 3.5, *Biological Resources*, approval of the Draft 2045 CAP could incentivize future projects—such as those supporting the electrification of new development—that could cause a significant adverse impact on state or federally protected wetlands (e.g., marshes, vernal pools, or coastal wetlands) through direct removal, filling, hydrological interruption, or other means.

However, future projects facilitated by Draft 2045 CAP measures and actions would be subject to project-specific permitting under Section 404 of the Clean Water Act. USEPA and USACE explain that, after all appropriate and practicable avoidance and minimization has been achieved, compensatory mitigation is required to offset any unavoidable adverse impacts that remain. In this context, these terms are defined as follows:

- *Avoidance* means mitigating an aquatic resource impact “by selecting the least-damaging project type, spatial location and extent compatible with achieving the purpose of the project” (USEPA 2021b).
- *Minimization* means reducing an aquatic resource impact “by managing the severity of a project’s impact on resources at the selected site. Minimization is achieved through the incorporation of appropriate and practicable design and risk avoidance measures” (USEPA 2021b).
- *Compensatory mitigation* means mitigating an aquatic resource impact “by replacing or providing substitute aquatic resources for impacts that remain after avoidance and minimization measures have been applied” (USEPA 2021b).

Three common avenues for compensatory mitigation are mitigation banks, in-lieu fee programs, and permittee-responsible mitigation (USEPA 2022). For example, the Petersen Ranch Mitigation Bank serves an area of nearly 4 million acres covering Los Angeles, Kern, Ventura, and San Bernardino counties and eventually will restore approximately 4,000 acres of native wetland habitat in the Leona Valley north of Los Angeles (USACE 2016). These avenues are in place and their implementation would be expected to achieve no net loss of jurisdictional waters from projects facilitated by Draft 2045 CAP measures and actions, consistent with federal and state policies.

4.3.6 Complete Phase-Out of Oil and Gas Operations by 2030 Alternative

The Complete Phase-Out of Oil and Gas Operations by 2030 Alternative would involve a complete, 100 percent phase-out of oil and gas operations within unincorporated County areas by the year 2030. The RDEIR is considering this alternative in response to input received during the public comment period on the Draft EIR. The Project includes the following targets for phasing out oil and gas operations: 40 percent by 2030, 60 percent by 2035, and 80 percent by 2045. This alternative would instead call for a 100 percent phase-out by 2030.

In response to the September 15, 2021, motion by the County Board of Supervisors, the County Department of Regional Planning prepared an ordinance to amend Title 22—Planning and Zoning of the County Code. The proposed ordinance prohibits new oil wells and production facilities in all zones, designates existing oil wells and production facilities as nonconforming uses in all zones, and establishes regulations for existing oil wells and production facilities. On September 27, 2022, the County Board of Supervisors closed the public hearing and indicated its intent to approve the Los Angeles County Oil Well Ordinance. The Board of Supervisors adopted the Oil Well Ordinance on January 24, 2023 and became effective after 30 days.

At the time of RDEIR preparation, the County was conducting an amortization study to determine the fastest possible phase-out timeline for all existing oil wells and production facilities. This study will consider the legal, environmental, political, and cost considerations of the phase-out. The amortization study will guide the strategy to phase out oil and gas extractions and facilities. Without having the results of the amortization study in hand, it is not possible to know when the earliest complete phase-out could occur, or even whether it is feasible to achieve complete phase-out by 2045. Achieving a complete phase-out by 2045 would be a daunting challenge.

The Complete Phase-Out of Oil and Gas Operations by 2030 Alternative was not carried forward for more detailed review for several reasons. First, this alternative would not clearly avoid or substantially lessen any of the potential significant impacts of the Project. It is possible that this alternative could worsen or increase the Project’s potential significant impacts, such as localized construction-related air quality and health risk impacts from decommissioning of oil and gas wells and remediation activities at contaminated sites.

Second, the implementation of this alternative would be remote or speculative, given that without the amortization study, it is not possible to know whether the alternative is feasible. Without more information from this detailed study, it is speculative to assume that implementing this alternative is possible. There is no basis to assume that this alternative could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. The time and expense required to implement this alternative—such as overcoming the substantial legal barriers and remediation costs of decommissioning projects—would compete with the County’s pursuit of other community priorities, such as electrifying the Countywide vehicle fleet, providing carbon-free electricity to all County residents and businesses, and transitioning the Countywide building stock away from natural gas to all-electric buildings.

Third, this alternative addresses only one of the CAP's many measures, Measure ES 1 (Sunset Strategy for All Oil and Gas Operations). An EIR is required to consider alternatives to the project as whole, and is not required to consider alternatives to each project component. *California Oak Foundation v. Regents of University of California* (2010) 188 Cal. App. 4th 227, 276–277.

4.3.7 Limited-Scope CAP Alternative

The Limited-Scope CAP Alternative would include the minimum number of strategies, measures, and actions needed to achieve the Draft 2045 CAP's GHG emission reduction targets for 2030, 2035, and 2045. This alternative would aim to eliminate or reduce performance objectives for those measures and actions that could facilitate projects that would cause most of the Project's potential significant impacts. The RDEIR is considering this alternative in response to input received during the public comment period on the Draft EIR.

Specifically, this alternative would include reduced performance objectives for the years 2030 and 2035 for specific measures, including:

- Measure ES2, *Procure Zero-Carbon Electricity*.
- Measure T6, *Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales*.
- Measure E1, *Transition Existing Buildings to All-Electric*.
- Measure E2, *Standardize All-Electric New Development*.
- Measure W1, *Institutionalize Sustainable Waste Systems and Practices*.
- Measure W2, *Increase Organic Waste Diversion*.

The CAP's 2030 and 2035 targets can still be met with reduced performance objectives for these and other measures.

More specifically, this alternative would reduce performance objectives for Measure ES2 to 60 percent zero-carbon electricity by 2030 and 70 percent by 2035, compared to the Project's performance objectives of 96 percent by 2030 and 2035. It also would reduce performance objectives for Measure T6 to 25 percent fleetwide light-duty zero-emissions vehicles (ZEVs) by 2030 and 35 percent by 2035, compared to the Project's performance objectives of 30 percent by 2030 and 50 percent by 2035. Thus, this alternative would be expected to facilitate fewer projects through 2030 and 2035 to generate and transmit zero-carbon electricity to County residents and businesses, and fewer projects through 2030 and 2035 to install electric vehicle charging stations and meet the increased electricity demand associated with such vehicles.

This alternative would reduce the performance objectives for Measure E1 by lowering the target electrification objectives for existing buildings, and for Measure E2 by removing the requirement for all new development to be all-electric with no natural gas infrastructure. This alternative also would reduce the performance objectives for Measures W1 and W2, by facilitating fewer projects

through 2030 and 2035 for construction and operation of new waste collection, management, and processing infrastructure than would be facilitated by the Project.

Consequently, this alternative could have the capacity to avoid or substantially lessen some of the Project’s potential significant impacts in the years 2030 and 2035. However, this alternative would not change the performance objectives for the year 2045 because all measures and actions in the Draft 2045 CAP are needed to achieve the County’s 2045 target. Therefore, potential impacts in 2045 would be the same as those identified for the Project.

The Limited-Scope CAP Alternative was not carried forward for more detailed review because it would not meet most of the basic Project objectives. More specifically:

- This alternative would not implement the climate action policies of the General Plan (Objective 1) because, for example:
 - Its lower performance goal for Measure ES2 would conflict with Policy AQ 3.9 to “Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.”
 - Its lower performance goal for Measure T6 would conflict with Policy AQ 2.7 to “Encourage and support the development and implementation of Zero-Emission technology and infrastructure.”
 - Its lower performance goal for Measure E1 would conflict with Policy AQ 3.5 to “Require the full electrification of new development.”
- This alternative would not provide a feasible and realistic road map for reducing GHG emissions to achieve the GHG emissions reduction targets (Objective 3) because it would call for a CAP that does the bare minimum to achieve the County’s targets, with no margin of safety. Such a CAP would provide no emissions “buffer” if certain measures and actions are not as effective in reducing GHG emissions in the future as they were modeled during the planning stage.
- This alternative also would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and thus be a “qualified CAP” (Objective 5). This alternative would put the County in danger of missing its GHG emissions reduction targets, and thus would not be a reliable pathway to achieving a level of GHG emissions below which GHG emissions in the County would have less than cumulatively considerable GHG impacts.

4.4 Alternatives Evaluated in Detail in this EIR

4.4.1 No Project Alternative

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate the impacts of a no project alternative to enable a comparison of the potential environmental consequences that would result with and without the proposed project. In this case, the No Project Alternative examines a scenario in which the County would not approve the 2045 CAP for implementation in the unincorporated areas. Under such a scenario, none of the emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented and none of the benefits and co-benefits identified

would be realized. Further, the GHG emissions reduction strategies included in the Air Quality Element of the General Plan—known as the *Unincorporated Los Angeles County Community Climate Action Plan 2020*—expired in 2020. Accordingly, the County would not continue to implement those strategies, which addressed emissions from land use, transportation, building energy, water consumption, and waste generation.

The No Project Alternative would also include continued implementation of other plans and programs that would have the result of reducing GHG emissions to the extent that such plans and programs were adopted before January 3, 2022, when the Notice of Preparation was published. The No Project Alternative is essentially captured in the 2045 CAP's Adjusted business-as-usual forecast, which accounts for future growth under business-as-usual conditions² but adjusts for federal, state, and County legislation and regulations that were implemented before development of the Draft 2045 CAP.³ Further, efforts to reduce GHG emissions would continue outside the study area—for example, in incorporated areas of Los Angeles County, in adjacent jurisdictions, and in other locations outside the County where land use and related activities are governed by regional, state, or federal agencies, such as the Southern California Association of Governments, California Air Resources Board, U.S. Forest Service, and National Park Service. This alternative would not provide a clear pathway for the County to meet and exceed the statewide 2030 GHG emissions reduction goal identified in Senate Bill (SB) 32 or to meet the 2045 carbon neutrality goal established by Assembly Bill (AB) 1279.

In addition, the No Project Alternative would not meet any of the Project objectives. For example, the No Project Alternative would not implement the climate action policies of the General Plan (Objective 1); would not provide a road map to achieve GHG reductions to meet the GHG emission reduction targets (Objective 3); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (“qualified CAP”) (Objective 5). Nonetheless, as required by CEQA, the No Project Alternative has been carried forward for more detailed review. See **Table 4-1**, *Screening Summary: No Project Alternative*.

² The “business-as-usual” forecast assumes no action is taken to reduce GHG emissions in the County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

³ These adjustments include implementation of the California Energy Commission’s 2019 and 2023 Title 24 building energy efficiency requirements, the Renewable Portfolio Standards (SB 350), the California Department of Resources Recycling and Recovery 75 percent waste diversion initiative (AB 341), the Pavley and Advanced Clean Car Standards (AB 1493), and the Low Carbon Fuel Standards (Executive Order S-01-07).

**TABLE 4-1
SCREENING SUMMARY: NO PROJECT ALTERNATIVE**

| Screening Considerations | Pass / Fail | Rationale |
|--|-------------|--|
| Would the potential alternative meet most of the basic Project objectives? | No | The No Project Alternative would not meet any of the Project objectives set forth in Section 2.2, <i>Project Purpose and Objectives</i> . |
| Would the potential alternative be potentially feasible? | Yes | Preliminarily, the No Project Alternative could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (Public Resources Code Section 21061.1; CEQA Guidelines Section 15126.6 and Section 15364). |
| Would the potential alternative avoid or substantially lessen any of the potential significant impacts of the Project? | Yes | The No Project Alternative would avoid all of the Project's significant impacts identified in Chapter 3. |
| Would implementation of the proposed alternative be remote or speculative? | No | The No Project Alternative very likely could result if the 2045 CAP is not approved. |

CONCLUSION: *Although the No Project Alternative fails to satisfy all of the screening criteria, it nonetheless has been carried forward for more detailed review in accordance with the requirements of CEQA.*

4.4.2 Alternative 1: Carbon Offset Alternative

Under Alternative 1, in addition to implementing the measures and actions called for by the Draft 2045 CAP, the County would reduce GHG emissions by purchasing carbon offsets. Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global-warming-potential gas use with a gas that has a lower global warming potential, or implement other measures. To achieve the greatest environmental co-benefits to the County, priority would be given, from highest to lowest, to offsets purchased from local projects (within Los Angeles County), regional projects (from within Southern California), projects within California, projects outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and projects elsewhere in the United States.

In January 2022, during the scoping period for this EIR, the cost of carbon allowances in the California cap-and-trade system was approximately \$28 per metric ton (ClimateWire 2022). The compliance carbon offsets that are allowable in California's cap-and-trade system tend to be priced about the same as allowances. However, the County would have to purchase and retire carbon offsets from the voluntary market, which is not regulated. Prices in the voluntary carbon market are generally lower, but can vary widely depending on the type, size, and location of the project generating the offset, as well as the protocol or standard under which it was developed. A spot check of over-the-counter reputable offset retailers, conducted in April 2022, reveals current prices for voluntary offsets ranging from approximately \$15 to \$25 per MTCO_{2e}.⁴ Based on these prices, the 2022 purchase of 1.25 million MTCO_{2e} could range from \$17 million to \$36 million

⁴ Offset prices offered by four retailers were reviewed on April 11, 2022: atmosfair (<https://www.atmosfair.de/en>); CoolEffect (<https://www.cooleffect.org>), NativeEnergy (<https://native.eco>). and TerraPass (<https://www.terrapass.com>).

per year. Funding sources would have to be identified, but theoretically could be sourced from the County general fund, existing or new development fees, or other sources. See **Table 4-2, Screening Summary: Alternative 1.**

**TABLE 4-2
SCREENING SUMMARY: ALTERNATIVE 1**

| Screening Considerations | Pass / Fail | Rationale |
|--|-------------|--|
| Would the potential alternative meet most of the basic Project objectives? | Yes | Alternative 1 would meet all of the Project objectives identified in Section 2.2, <i>Project Purpose and Objectives</i> , because it would assure that the functional equivalent of all emissions reductions to be achieved by the 2045 CAP would occur. |
| Would the potential alternative be potentially feasible? | Yes | Alternative 1 would be capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. Under Alternative 1, offsets could be used to replace any of the measures in the 2045 CAP, although costs would be greater if measures with larger greenhouse gas emissions reduction values were offset rather than implemented. The availability of funding is expected to act as a natural check on the mix of implementation and offsets. |
| Would the potential alternative avoid or substantially lessen any of the potential significant impacts of the Project? | Yes | The Carbon Offset Alternative would substantially reduce the Project's significant impacts attributed to projects facilitated by implementation of the Draft 2045 CAP measures and actions. |
| Would implementation of the proposed alternative be remote or speculative? | No | Considering that eligible projects could be located locally, regionally, statewide, nationally, or internationally, and that voluntary offset markets have been operating since the 1990s, implementation of Alternative 1 would be neither remote nor speculative. |

CONCLUSION: Alternative 1 passes all screening criteria and has been carried forward for more detailed review.

4.4.3 Alternative 2: Zero Net Energy Buildings Alternative

A building is a zero net energy (ZNE) building if it is energy-efficient and if the actual energy it consumes annually on a source energy basis is less than or equal to the on-site renewable generated energy (California Department of General Services 2017). Stated another way, ZNE buildings produce enough renewable energy to meet their own annual energy consumption requirements, thereby reducing the use of nonrenewable energy in the building sector. These buildings achieve ZNE first through high levels of energy efficiency to minimize energy use, then through the addition of on-site renewable power generation and renewable energy storage systems (e.g., batteries).

Energy efficiency measures include building design elements that reduce energy demand such as high-performance building envelopes, air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. Energy use could be managed with efficient equipment and systems, such as energy-efficient lighting; electric lighting controls; high-performing heating, ventilation, and air-conditioning; and energy-conversion devices. Once efficiency measures have been incorporated, the remaining energy needs of the building can be met with on-site renewable energy generation and storage. Common on-site electricity generation strategies include photovoltaic solar panels on rooftops or over surface parking, and solar water heating.

In 2008, the California Public Utilities Commission adopted (and then in 2011, updated) the California Energy Efficiency Strategic Plan (CPUC 2008; Engage 360 2011). This strategic plan outlined ambitious goals for the development of ZNE buildings for the 2009 to 2020 time period. In April 2012, Governor Edmund G. Brown Jr. furthered the goals of the California Energy Efficiency Strategic Plan when he issued Executive Order B-18-12, which ordered all new state buildings and major renovations beginning design after 2025 to be constructed as ZNE facilities. The Executive Order included an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. Executive Order B-18-12 also directed state agencies to take measures toward achieving ZNE for 50 percent of the square footage of existing state-owned building area by 2025.

Although the Strategic Plan has reached its sunset, and although Executive Order B-18-12 does not directly apply to local agencies, the goals of both measures remain relevant to the reduction of GHG emissions by local governments. As the 2011 Update to the Strategic Plan recognized (Engage 360 2011):

Local governments have significant powers that can improve the energy efficiency of new and existing buildings. ...Local governments can be significant energy end users in their own buildings and facilities, from public schools to wastewater treatment plants to City Hall. These facilities provide an opportunity to “lead by example” by improving energy efficiency, reducing CO₂ emissions, and cutting government energy bills.

In addition to implementation of the Draft 2045 CAP measures and actions, a Zero Net Energy Buildings Alternative would include the following elements:

- All new residential and commercial construction in unincorporated areas of the County would be ZNE by 2025.
- 50 percent of residential and commercial buildings in unincorporated areas of the County would be retrofitted to ZNE by 2030.
- Projects in unincorporated areas of the County that voluntarily exceed state and local minimum energy codes would be rewarded with expedited permitting and favorable fee structures.
- 50 percent of new major renovations of County buildings would be ZNE by 2025.
- The energy usage footprint of local government buildings would be 50 percent below 2015 levels by 2030.

The Zero Net Energy Buildings Alternative has the potential to reduce GHG emissions and energy-related impacts of the Project, which the County has determined in Section 3.9 and Section 3.7, respectively, to be less than significant. However, this alternative also has the potential to worsen or increase the Project’s potential significant and unavoidable air quality impacts, as determined in Section 3.4, related to operational criteria pollutant emissions and localized construction-related health risks from toxic air contaminants, and the Project’s potential significant and unavoidable localized noise impacts as determined in Section 3.13, as a result of the construction of ZNE buildings.

See **Table 4-3, Screening Summary: Alternative 2.**

**TABLE 4-3
SCREENING SUMMARY: ALTERNATIVE 2**

| Screening Considerations | Pass / Fail | Rationale |
|--|-------------|--|
| Would the potential alternative meet most of the basic Project objectives? | Yes | Alternative 2 would meet all of the Project objectives identified in Section 2.2, <i>Project Purpose and Objectives</i> , because it incorporates and would go farther than the 2045 CAP in reducing GHG emissions. |
| Would the potential alternative be feasible? | Yes | There is a question as to whether zero net energy requirements would be economically feasible, based on the substantially higher cost of constructing such buildings relative to the cost of constructing other types of new buildings. Zero net energy buildings are anticipated to be much more efficient than buildings that meet current Title 24 “green building” standards, and thus would be expected to have lower energy demands and associated costs once operational. No evaluation has been done of the financial tradeoffs of higher upfront costs and lower operational energy costs. Without more information about economic feasibility, the County has preliminarily determined that Alternative 2 would be feasible. |
| Would the potential alternative avoid or substantially lessen any of the potential significant impacts of the Project? | Yes | This alternative adds zero net energy buildings to the draft 2045 CAP measures and actions, which calls into question whether it would reduce CAP impacts; nonetheless, for purposes of screening, it is assumed that Alternative 2 has the potential to substantially lessen a potential significant impact of the Project. |
| Would implementation of the proposed alternative be remote or speculative? | No | State legislation and guidance has been in place for zero net energy buildings since at least 2012. Achievement of the stated outcomes would be neither remote nor speculative. |

CONCLUSION: *Alternative 2 passes all of the screening criteria and has been carried forward for more detailed review.*

4.4.4 Alternative 3: Lower Targets Alternative

Input received during the public comment period on the Draft EIR suggested that the EIR consider an alternative with lower GHG emission reduction targets than the Draft 2045 CAP released in spring 2022, i.e., a Lower Targets Alternative. The targets suggested by public comments were a 40 percent reduction in 1990 levels by 2030 and a 50 percent reduction in 1990 levels by 2035 to align with state-level, codified targets in place prior to AB 1279.

Under Alternative 3, the GHG emission reduction targets of the 2045 CAP would be lower than those contained in the current Draft 2045 CAP. These targets would represent the minimum targets needed to “align” with California’s codified statewide targets for 2030 and 2045. Specifically, the targets under Alternative 3 would be:

- By 2030, reduce emissions to 31 percent below 2015 levels (equivalent to a 40 percent reduction below 1990 levels).
- By 2035, maintain the same level of GHG reductions achieved in 2030.
- By 2045, reduce emissions to 83 percent below 2015 levels (equivalent to an 85 percent reduction below 1990 levels).

These targets compare to the Draft 2045 CAP’s targets of a 40 percent reduction below 2015 levels by 2030 (equivalent to a 48 percent reduction below 1990 levels), a 50 percent reduction

below 2015 levels by 2035 (equivalent to a 57 percent reduction below 1990 levels), and an 83 percent reduction below 2015 levels by 2045 (equivalent to an 85 percent reduction below 1990 levels).

Note that since the public comments on the Draft EIR were received, with the passage of AB 1279, the State of California has codified the 2045 target of net zero GHG emissions and an 85 percent reduction in direct anthropogenic emissions compared to 1990 levels. AB 1279's targets are more aggressive than those in Executive Order B-55-18 (net zero emissions by 2050) and Executive Order S-3-05 (80 percent below 1990 levels by 2050). Thus, the targets evaluated under Alternative 3 differ slightly from the targets suggested by the commenters. This is also the reason that the 2045 target is the same for Alternative 3 as for the Project, given that the Draft 2045 CAP must align with the statewide targets codified in AB 1279 pursuant to Objective 2 of the Project.

Table 4-4, Comparison of Greenhouse Gas Emission Reduction Targets, compares the targets of the State of California, the Project, and Alternative 3.

**TABLE 4-4
COMPARISON OF GREENHOUSE GAS EMISSION REDUCTION TARGETS**

| Year | State Targets | Project Targets | Alternative 3 Targets |
|------|---|--|--|
| 2030 | 40% below 1990 levels (SB 32) | 40% below 2015 levels (48% below 1990 levels) | 31% below 2015 levels (40% below 1990 levels) |
| 2035 | None | 50% below 2015 levels (57% below 1990 levels) | 31% below 2015 levels (40% below 1990 levels) |
| 2045 | 85% below 1990 levels and net zero GHG emissions ¹ (AB 1279) | 83% below 2015 levels (85% below 1990 levels) | 83% below 2015 levels (85% below 1990 levels) |

NOTES:

AB = Assembly Bill; GHG = greenhouse gas; SB = Senate Bill

¹ *Net zero* means that emissions of GHGs to the atmosphere are balanced by removals of GHGs over a period of time, as determined by the California Air Resources Board. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is removed from the atmosphere, both in natural sinks (such as trees) and through mechanical sequestration (such as direct air capture).

To achieve the GHG emissions reduction targets under Alternative 3, fewer measures and actions would be needed, and/or performance objectives for the measures and actions would be reduced, compared to the Project. This is because the County would need to take fewer actions to reduce GHG emissions to achieve the less aggressive reduction targets. For example, Measure T6, *Increase ZEV Market Share*, has a 2030 performance goal of a 30 percent ZEV fleetwide percentage for light-duty vehicles in the County; under Alternative 3, this performance objective could be reduced to a 10 percent ZEV market share (or lower). These reduced performance objectives could reduce the unavoidable adverse impacts of implementation of projects facilitated by the 2045 CAP.

Alternative 3 would meet most of the Project objectives; however, if Alternative 3 is structured to substantially reduce the unavoidable adverse impacts of the implementation of projects facilitated by the 2045 CAP, its ability to meet Project Objectives 1, 2, and 5 would be limited

compared to the Project. For example, many of the Draft EIR’s potential significant and unavoidable impacts arise from the construction and operation of utility-scale solar projects that may be facilitated by Measure ES2, *Procure Zero Carbon Electricity*.⁵ However, reducing the performance objectives of Measure ES2 toward reducing indirect impacts of utility-scale solar projects facilitated by the Draft 2045 CAP would, for purposes of the analysis, conflict with General Plan Policy AQ 3.9 to “Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County.” Inconsistency with General Plan Policy AQ 3.9 would mean that Alternative 3 would not meet Objective 1 of the Project. Thus, the County would need to reduce Alternative 3 performance goals for other measures and actions for the alternative to be consistent with most of the basic Project objectives.

Additionally, the 2030 target of 40 percent below 1990 levels is quite far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which may mean that Alternative 3 does not align with either County or state goals. This is because CARB projects that a 48 percent reduction in 1990 emissions levels by 2030 is needed: “The Scoping Plan Scenario achieves the AB 1279 target of 85 percent below 1990 levels by 2045 and identifies a need to accelerate the 2030 target to 48 percent below 1990 levels” (CARB 2022b). This is far beyond the 40 percent reduction required by SB 32. The Project’s 2030 target of 40 percent below 2005 levels is equivalent to 48 percent below 1990 levels, which aligns the Project much more closely with state goals and the 2022 Scoping Plan than Alternative 3.

Figure 4-1 shows Alternative 3’s reduced targets as compared to state targets and implementation of the 2022 Scoping Plan to illustrate this point.

⁵ Even though the construction of new utility-scale solar projects would not be required to achieve Project targets as proposed, this EIR conservatively assumes that new utility-scale solar projects nonetheless would be facilitated by the 2045 CAP.

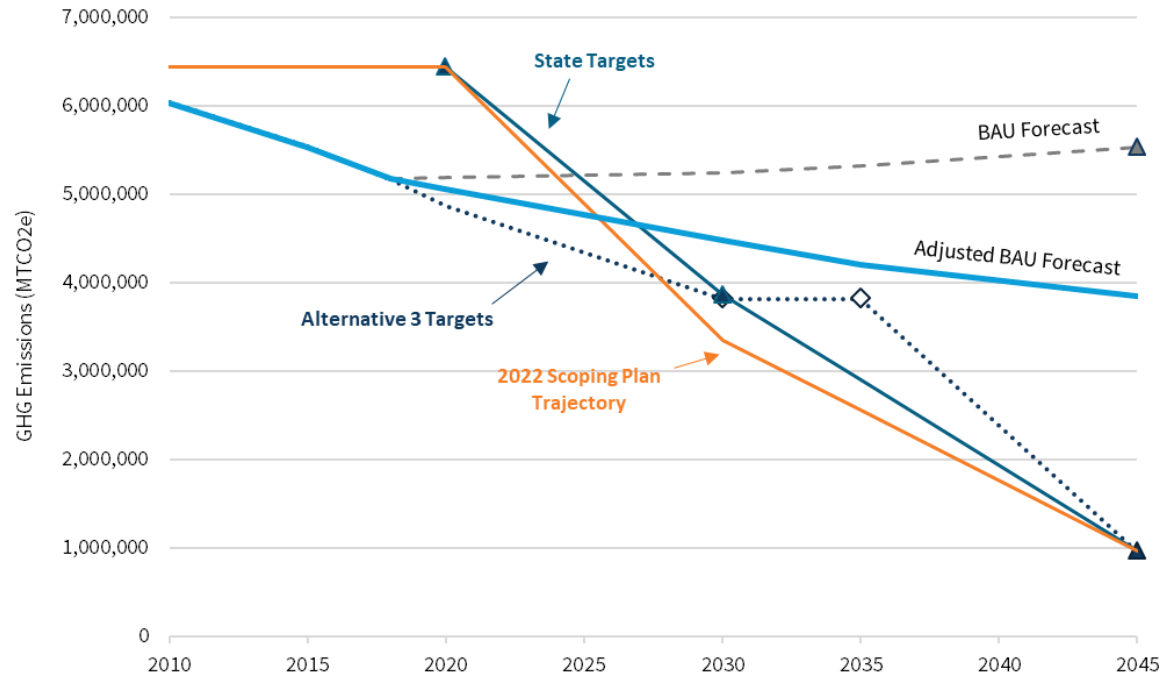


Figure 4-1
Comparison of Alternative 3 to State Greenhouse Gas Reduction Targets and the 2022 Scoping Plan Trajectory

Further, the 2022 Scoping Plan includes several recommended priority GHG emissions reduction strategies that should be incorporated “to the extent appropriate to ensure alignment with State climate goals,” including the following (CARB 2022a; see Table 1):

- *Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).*
- *Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.*
- *Adopt all-electric new construction reach codes for residential and commercial uses.*
- *Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).*
- *Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).*

Alternative 3 would likely not align with the state’s GHG emissions reduction goals if it excluded strategies such as those listed above. This would make Alternative 3 inconsistent with Project Objectives 1, 2, and 5 unless Alternative 3 included measures and actions that align with the local strategies listed in the 2022 Scoping Plan. Inclusion of such strategies, including those listed above, would limit the alternative’s capacity to reduce significant unavoidable impacts compared to the Project, because many of the Project’s potential unavoidable adverse impacts arise from projects facilitated by CAP measures and actions that align with the above-listed CARB recommended priority GHG reduction strategies.

See **Table 4-5, Screening Summary: Alternative 3.**

**TABLE 4-5
SCREENING SUMMARY: ALTERNATIVE 3**

| Screening Considerations | Pass / Fail | Rationale |
|--|-------------|---|
| Would the potential alternative meet most of the basic Project objectives? | Yes | Alternative 3 would potentially meet most of the Project objectives identified in Section 2.2, <i>Project Purpose and Objectives</i> , but to a lesser extent than the Project. However, if Alternative 3 is structured to substantially reduce the unavoidable adverse impacts of the implementation of projects facilitated by the 2045 CAP, its ability to meet Project Objectives 1, 2, and 5 would be limited compared to the Project. |
| Would the potential alternative be potentially feasible? | Yes | Alternative 3 would potentially be capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. Alternative 3 would involve fewer implementing measures and actions to achieve the lower GHG emissions reduction targets, thereby requiring less infrastructure, funding, and implementation effort than the Project. |
| Would the potential alternative avoid or substantially lessen any of the potential significant impacts of the Project? | Yes | Alternative 3 would likely substantially reduce many of the Project’s significant impacts attributed to projects facilitated by implementation of the Draft 2045 CAP measures and actions. |
| Would implementation of the proposed alternative be remote or speculative? | No | Implementation of Alternative 3 would be neither remote nor speculative, given that this alternative would include many of the same measures and actions as the Project, just on a reduced scale. |

CONCLUSION: Alternative 3 passes all screening criteria and has been carried forward for more detailed review.

4.5 Comparative Analysis of Alternatives

Table 4-6, Summary of Impacts of the Project and Alternatives, summarizes the significant environmental impacts of the Project alternatives, and provides a fact-based comparison of the alternatives’ impacts to the Project’s impacts.

4.6 Environmentally Superior Alternative

The CEQA Guidelines define the *environmentally superior alternative* as that alternative with the least adverse impacts on the project area and its surrounding environment. For this Project, the No Project Alternative is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project even though air quality and GHG emissions

would be the worst among all alternatives under the No Project Alternative. However, the No Project Alternative would fail to meet the basic objectives of the Project. Additionally, selection of the No Project Alternative would result in realization of none of the benefits identified in the Draft 2045 CAP. Because the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. (CEQA Guidelines Section 15126.6(e)(2).)

For purposes of this EIR, Alternative 3 is considered the environmentally superior alternative for CEQA purposes because it would result in similar but lesser impacts in 11 resource areas relative to the Project (i.e., aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, utilities and service systems, and wildfire) and greater impacts than the Project in two resource areas (i.e., energy and GHG emissions). Alternative 3 would have same impacts as the Project with respect to the remaining resources. See Table 4-6 for details.

However, it should be noted that Alternative 3 would likely only delay impacts as compared to the Project versus lessening these impacts or eliminating them entirely. This is because Alternative 3 has lower targets only for the years 2030 and 2035 compared to the Project; it has the same targets for the year 2045. This means that Alternative 3 would likely facilitate fewer projects through 2030 and 2035 to achieve the lesser targets, resulting in reduced impacts for these years. But Alternative 3 would likely facilitate the same number of projects through 2045, resulting in the same impacts through 2045. Consequently, Alternative 3 would delay the potential impacts but would not completely eliminate or permanently lessen these impacts.

It should be noted that Alternative 3 does have some drawbacks compared to the Project. As discussed previously, its ability to meet Project Objectives 1, 2, and 5 would be limited compared to the Project. Additionally, the 2030 target of 40 percent below 1990 levels is quite far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which may mean that Alternative 3 does not align with either County or state goals. Finally Alternative 3 may exclude several recommended priority local GHG emissions reduction strategies recommended by the 2022 Scoping Plan to ensure alignment with State climate goals.

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**TABLE 4-6
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|---------------|---|--|---|---|---|
| 3.2 | Aesthetics | <p>Impact 3.2-1: SU. The Project would result in a significant unavoidable impact on scenic vistas because projects facilitated by Draft 2045 CAP measures and actions could alter views of scenic vistas. Implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-2: SU. The Project would result in significant unavoidable impacts on views from regional riding, hiking, or multiuse trails because projects facilitated by Draft 2045 CAP measures and actions could be visible from or obstruct views from regional trails. Implementation of Mitigation Measures 3.2-1 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-3: SU. The Project would result in a significant unavoidable impact on scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway, because projects facilitated by Draft 2045 CAP measures and actions could result in visual contrast or changes during the construction of projects or by creating new structures that would create contrast compared to existing visual conditions. Implementation of Mitigation Measures 3.2-1 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-4: SU. The Project would result in a significant unavoidable impact on the existing visual character or quality of public views of the site and its surroundings because projects facilitated by the Draft 2045 CAP could have height, bulk, pattern, scale, character, or other features and/or could conflict with applicable zoning and other regulations governing scenic quality, particularly if such projects were to be located in rural areas of the County where the visual contrast would be greater. Implementation of Mitigation Measures 3.2-2 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-5: LTSM. The Project would result in a less-than-significant impact with mitigation related to creating a new source of substantial shadow, light, or glare with the incorporation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts. The implementation of Mitigation Measure 3.2-3 would ensure that the lighting for projects facilitated by the Draft 2045 CAP would not substantially intrude on daytime or nighttime views in the area because its provisions would substantially confine generated light to within project boundaries.</p> <p>Impact 3.2-6: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on a scenic vista. No feasible mitigation measures are available to reduce this impact.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.2-1: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not alter views of scenic vistas. • Impact 3.2-2: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not obstruct views from a regional riding, hiking, or multiuse trail. • Impact 3.2-3: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not result in visual contrast or changes during the construction of projects or by creating new structures that would create contrast compared to existing visual conditions. • Impact 3.2-4: No impact (less than the Project) because this alternative would not substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. • Impact 3.2-5: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not create shade, shadows, daytime glare, and nighttime lighting. • Impact 3.2-6: No impact (less than the Project) because this alternative would not cause or contribute to a significant cumulative impact on scenic vistas. • Impact 3.2-7: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to cumulative impacts on views from a regional riding, hiking, or multiuse trail. • Impact 3.2-8: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to substantial cumulative damage to scenic resources, including but not limited to trees, rocks, outcropping, and historic building within a state scenic highway. • Impact 3.2-9: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. • Impact 3.2-10: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could alter views of scenic vistas. Implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-2: SU (same as the Project) because projects facilitated by this alternative could be visible from or obstruct views from regional riding, hiking, or multiuse trails. Implementation of Mitigation Measures 3.2-1 and 3.2-2 could reduce this impact, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-3: SU (same as the Project) because projects facilitated by this alternative could result in visual contrast or changes during construction or by creating new structures that would create contrast compared to existing visual conditions. Implementation of Mitigation Measures 3.2-1 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-4: SU (same as the Project) because projects facilitated by this alternative could be located in rural areas of the County where the visual contrast would be greater. Implementation of Mitigation Measures 3.2-2 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-5: LTSM (same as the Project) because projects facilitated by this alternative could create shade, shadows, daytime glare, and nighttime lighting; however, implementation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would ensure that the projects' lighting would not substantially intrude on daytime or nighttime views in the area. • Impact 3.2-6: SU (same as the Project) because the incremental impacts of projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on a scenic vista. No feasible mitigation measures are available to reduce this impact. • Impact 3.2-7: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the alternative-specific contribution, which would remain cumulatively considerable and therefore significant and unavoidable. No other feasible mitigation measures are available to reduce this impact. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could alter views of scenic vistas. Implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-2: SU (same as the Project) because projects facilitated by this alternative could be visible from or obstruct views from regional riding, hiking, or multiuse trails. Implementation of Mitigation Measures 3.2-1 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-3: SU (same as the Project) because projects facilitated by this alternative could result in visual contrast or changes during construction or by creating new structures that would create contrast compared to existing visual conditions. Implementation of Mitigation Measures 3.2-1 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-4: SU (same as the Project) because projects facilitated by this alternative could be located in rural areas of the County where the visual contrast would be greater. Implementation of Mitigation Measures 3.2-2 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-5: LTSM (same as the Project) because projects facilitated by this alternative could create shade, shadows, daytime glare, and nighttime lighting; however, incorporation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would ensure that the projects' lighting would not substantially intrude on daytime or nighttime views in the area. • Impact 3.2-6: SU (same as the Project) because the incremental impacts of projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on a scenic vista. No feasible mitigation measures are available to reduce this impact. • Impact 3.2-7: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the alternative-specific contribution, which would remain cumulatively considerable and therefore significant and unavoidable. No other feasible mitigation measures are available to reduce this impact. | <ul style="list-style-type: none"> • Overall: – (similar to but less than the Project) • Impact 3.2-1: SU (similar to but less than the Project) because projects facilitated by this alternative could alter views of scenic vistas. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could alter views of scenic vistas. Implementation of Mitigation Measure 3.2-1, Alternative Design, and Mitigation Measure 3.2-2, Visual Screening and Other View Protection Measures, could reduce such impacts, but not to a less-than-significant level. • Impact 3.2-2: SU (similar to but less than the Project) because projects facilitated by this alternative could be visible from or obstruct views from regional riding, hiking, or multiuse trails. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could obstruct views from regional riding, hiking, or multiuse trails. Implementation of Mitigation Measures 3.2-2 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-3: SU (similar to but less than the Project) because projects facilitated by this alternative could result in visual contrast or changes during construction or by creating new structures that would create contrast compared to existing visual conditions. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in visual contrast or changes during construction or by creating new structures that would create contrast compared to existing visual conditions. Implementation of Mitigation Measures 3.2-2 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-4: SU (similar to but less than the Project) because projects facilitated by this alternative could be located in rural areas of the County where the visual contrast would be greater. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could be located in rural areas of the County where the visual contrast would be greater. Implementation of Mitigation Measures 3.2-2 and 3.2-2 could reduce such impacts, but not to a less-than-significant level. No other feasible mitigation measures are available to reduce this impact. • Impact 3.2-5: LTSM (similar to but less than the Project) because projects facilitated by this alternative could create shade, shadows, daytime glare, and nighttime lighting; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could create shade, shadows, daytime glare, and nighttime lighting. Incorporation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would ensure that the projects' lighting would not substantially intrude on daytime or nighttime views in the area. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------------------------|--------------------------|--|------------------------|---|---|--|
| <p>3.2 (cont.)</p> | <p>Aesthetics</p> | <p>Impact 3.2-7: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on views from a regional riding, hiking, or multiuse trail. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the Project-specific contribution, which would remain cumulatively considerable and therefore significant and unavoidable. No other feasible mitigation measures are available to reduce this impact.</p> <p>Impact 3.2-8: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the Project-specific incremental contribution, but not to a less-than-significant level. Therefore, the Project would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable.</p> <p>Impact 3.2-9: SU. The incremental impacts of the Project, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a cumulative impact on the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character or other features and/or a conflict with applicable zoning and other regulations of governing scenic quality. Implementation of Mitigation Measures 3.2-2 and 3.2-2 would reduce the Project-specific increment, but not to a less-than-significant level. Therefore, the Project would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable.</p> <p>Impact 3.2-10: LTSM. The Project would result in a less-than-significant contribution with mitigation to a cumulative impact related to creating a new source of substantial shadow, light, or glare. Implementation of Mitigation Measure 3.2-3 would reduce this impact to a less-than-significant level.</p> | | <ul style="list-style-type: none"> Impact 3.2-8: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to substantial cumulative damage to scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the alternative-specific increment, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-9: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. Implementation of Mitigation Measures 3.2-2 and 3.2-2 would reduce the incremental contribution, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-10: LTSM (same as the Project) because projects facilitated by this alternative would cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area. Implementation of Mitigation Measure 3.2-3 would reduce this impact to a less-than-significant level. | <ul style="list-style-type: none"> Impact 3.2-8: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to substantial cumulative damage to scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the alternative-specific increment, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-9: SU (same as the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. Implementation of Mitigation Measures 3.2-2 and 3.2-2 would reduce the incremental contribution, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-10: LTSM (same as the Project) because projects facilitated by this alternative would cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area. Implementation of Mitigation Measure 3.2-3 would reduce this impact to a less-than-significant level. | <ul style="list-style-type: none"> Impact 3.2-6: SU (similar to but less than the Project) because the incremental impacts of projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to a significant cumulative impact on a scenic vista. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, cause or contribute to a significant cumulative impact on a scenic vista. No feasible mitigation measures are available to reduce this impact. Impact 3.2-7: SU (similar to but less than the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the alternative-specific contribution, which would remain cumulatively considerable and therefore significant and unavoidable. No other feasible mitigation measures are available to reduce this impact. Impact 3.2-8: SU (similar to but less than the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to substantial cumulative damage to scenic resources, including but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, cause or contribute to substantial cumulative damage to scenic resources. Implementation of Mitigation Measures 3.2-1 and 3.2-2 would reduce the alternative-specific increment, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|----------------|------------------------------------|--|---|--|--|--|
| 3.2 (cont.) | Aesthetics | | | | | <ul style="list-style-type: none"> Impact 3.2-9: SU (similar to but less than the Project) because the incremental impacts of the projects facilitated by this alternative, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could, in combination with the impacts of closely related past, present, and reasonably foreseeable future projects, cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings. Implementation of Mitigation Measures 3.2-2 and 3.2-2 would reduce the incremental contribution, but not to a less-than-significant level. Therefore, this alternative would make a cumulatively considerable contribution, and the cumulative impact would be significant and unavoidable. Impact 3.2-10: LTSM (similar to but less than the Project) because projects facilitated by this alternative would cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to a new source of substantial shadow, light, or glare, which would result in cumulative impacts on nighttime views in the area. Implementation of Mitigation Measure 3.2-3 would reduce this impact to a less-than-significant level. |
| 3.3 | Agriculture and Forestry Resources | <p>Impact 3.3-1: SU. The Project would result in a significant unavoidable impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) because the development of projects facilitated by the Draft 2045 CAP could involve ground disturbance that could result in the conversion of designated Farmland to nonagricultural use. Implementing Mitigation Measure 3.3-1 would lessen the impact of the conversion of mapped Farmland to nonagricultural uses. However, this measure would not ensure that such conversion could be avoided and would have no impact on the conversion of mapped Farmland for residential or other uses of that land consistent with General Plan and zoning provisions.</p> <p>Impact 3.3-2: SU. The Project would result in a significant unavoidable impact related to conflicts with a designated Agricultural Resource Area because the development of projects facilitated by the Draft 2045 CAP could occur within an Agricultural Resource Area. Implementing Mitigation Measure 3.3-1, Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development, would lessen the impact caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no significant conflict would occur.</p> | <ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.3-1: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. Impact 3.3-2: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. | <ul style="list-style-type: none"> Overall: = (same as the Project), although a conclusion of either greater than or less than the Project also could be drawn. It is possible that this alternative could have greater impacts than the Project (still SU) if the resulting carbon offsets were related to natural and working lands (i.e., projects to increase sequestration by altering natural lands or creating new lands); alternatively, the offsets could all have to do with fossil fuel reduction or be located outside of the County, which would have less of an impact than the Project. Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. Although implementing Mitigation Measure 3.3-1 would lessen the impact, the impact would remain SU. Impact 3.3-2: SU (same as the Project) because projects facilitated by this alternative could be developed in conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would lessen the impact caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no significant conflict would occur. | <ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.2-1: SU (same as the Project) because projects facilitated by this alternative could involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. Although implementing Mitigation Measure 3.3-1 would lessen the impact, the impact would remain SU. Impact 3.3-2: SU (same as the Project) because projects facilitated by this alternative could be developed in conflict with a designated Agricultural Resource Area, but would not ensure that no significant conflict would occur. | <ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.2-1: SU (similar to but less than the Project) because projects facilitated by this alternative could involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could involve ground disturbance that could result in the conversion of Farmland to nonagricultural use. Although implementing Mitigation Measure 3.3-1 would lessen the impact, the impact would remain SU. Impact 3.3-2: SU (similar to but less than the Project) because projects facilitated by this alternative could be developed in conflict with a designated Agricultural Resource Area. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could be developed in conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would lessen the impact caused by a conflict with a designated Agricultural Resource Area, but would not ensure that no significant conflict would occur. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|---------------------------|--|---|---|--|--|--|
| <p>3.3 (cont.)</p> | <p>Agriculture and Forestry Resources</p> | <p>Impact 3.3-3: LTS. The Project would result in a less-than-significant impact related to a conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production because, although the development of projects facilitated by the Draft 2045 CAP could be located on forest land, subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the conversion of forest or timberland.</p> <p>Impact 3.3-4: LTS. The Project would result in a less-than-significant impact related to the loss of forest land or conversion of forest land to non-forest use because, although the development of projects facilitated by the Draft 2045 CAP could result in the conversion of forest land, subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the loss or conversion of forest land.</p> <p>Impact 3.3-5: SU. The Project would result in a significant unavoidable impact related to other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use because the development of projects facilitated by Draft 2045 CAP measures and actions could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. Implementing Mitigation Measure 3.3-1 would lessen the impact, but would not ensure that conversion would not occur.</p> <p>Impact 3.3-6: LTS. The Project would result in a less-than-significant impact related to other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use because projects facilitated by the Draft 2045 CAP would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for many project types.</p> <p>Impact 3.3-7: SU. The Project would result in a significant unavoidable contribution to a cumulative impact on Farmland even with implementation of Mitigation Measure 3.3-1.</p> <p>Impact 3.3-8: SU. The Project would result in a significant unavoidable contribution to a cumulative impact related to conflicts with existing zoning for agricultural use, or with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact.</p> <p>Impact 3.3-9: No Impact. The Project would result in no significant cumulative impact related to conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production because the Project's contribution would not be cumulatively considerable.</p> <p>Impact 3.3-10: LTS. The Project would result in a less-than-significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use because no significant cumulative impact exists to which the Project could contribute.</p> | <ul style="list-style-type: none"> Impact 3.3-3: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-4: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not result in loss of forest land or conversion of forest land to non-forest use. Impact 3.3-5: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. Impact 3.3-6: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. Impact 3.3-7: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not make a significant cumulative contribution to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Impact 3.3-8: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not result in a cumulatively significant conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. Impact 3.3-9: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-10: No impact (less than the Project) because this alternative would not facilitate any projects, and because no significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use exists to which the alternative could contribute. Impact 3.3-11: No impact (less than the Project) because this alternative would not facilitate any projects, and therefore would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. Impact 3.3-12: LTS. No impact (less than the Project) because this alternative would not facilitate any projects, and therefore this alternative would not involve other changes in the existing environment which, due to their location or nature, could result in cumulative conversion of forest land to non-forest use. | <ul style="list-style-type: none"> Impact 3.3-3: LTS (same as the Project) because projects facilitated by this alternative could be located on forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the conversion of forest or timberland. Impact 3.3-4: LTS (same as the Project) because projects facilitated by this alternative could result in the conversion of forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the loss or conversion of forest land. Impact 3.3-5: SU (same as the Project) because projects facilitated by this alternative could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. Implementing Mitigation Measure 3.3-1 would lessen the impact, but would not ensure that conversion would not occur. Impact 3.3-6: LTS (same as the Project) because, although projects facilitated by this alternative could result in other changes in the existing environment which, due to their location or nature, result in conversion of forest land to non-forest use, projects facilitated by this alternative would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for many project types. Impact 3.3-7: SU (same as the Project) because projects facilitated by this alternative would cause a significant cumulative contribution to the conversion of designated Farmland. Implementing Mitigation Measure 3.3-1 would reduce, but not avoid this significant cumulative impact. Impact 3.3-8: SU (same as the Project) because projects facilitated by this alternative would result in a cumulatively significant conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. Impact 3.3-9: No Impact (same as the Project) because projects facilitated by this alternative would result in a cumulatively considerable impact related to a conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-10: LTS (same as the Project) because no significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use exists to which the alternative could contribute. Impact 3.3-11: SU (same as the Project) because projects facilitated by this alternative would cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Implementing Mitigation Measure 3.3-1 would lessen the alternative's cumulative contribution to conversion-related impacts but would not ensure that other changes resulting in conversion would not occur. Impact 3.3-12: LTS (same as the Project) because projects facilitated by this alternative would not involve other changes in the existing environment, which due to their location or nature, would result in cumulative conversion of forest land to non-forest use. | <ul style="list-style-type: none"> Impact 3.3-3: LTS (same as the Project) because projects facilitated by this alternative could be located on forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the conversion of forest or timberland. Impact 3.3-4: LTS (same as the Project) because projects facilitated by this alternative could result in the conversion of forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the loss or conversion of forest land. Impact 3.3-5: SU (same as the Project) because projects facilitated by this alternative could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. Implementing Mitigation Measure 3.3-1 would lessen the impact but would not ensure that conversion would not occur. Impact 3.3-6: LTS (same as the Project) because the projects facilitated by this alternative could result in other changes in the existing environment which, due to their location or nature, result in conversion of forest land to non-forest use, projects facilitated by this alternative would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for many project types. Impact 3.3-7: SU (same as the Project) because projects facilitated by this alternative would cause a significant cumulative contribution to the conversion of designated Farmland. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. Impact 3.3-8: SU (same as the Project) because projects facilitated by this alternative would result in a cumulatively significant conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. Impact 3.3-9: No Impact (same as the Project) because projects facilitated by this alternative would not result in a cumulatively considerable conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-10: LTS (same as the Project) because no significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use exists to which the alternative could contribute. Impact 3.3-11: SU (same as the Project) because projects facilitated by this alternative would cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Implementing Mitigation Measure 3.3-1 would lessen the alternative's cumulative contribution to conversion-related impacts but would not ensure that other changes resulting in conversion would not occur. Impact 3.3-12: LTS (same as the Project) because projects facilitated by this alternative would not involve other changes in the existing environment, which due to their location or nature, would result in cumulative conversion of forest land to non-forest use. | <ul style="list-style-type: none"> Impact 3.3-3: LTS (similar to but less than the Project) because projects facilitated by this alternative could be located on forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the conversion of forest or timberland. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could be located on forest land. Impact 3.3-4: LTS (similar to but less than the Project) because projects facilitated by this alternative could result in the conversion of forest land, but subsequent CEQA review for such projects would be required to disclose and mitigate any potential significant impacts related to the loss or conversion of forest land. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in the conversion of forest land. Impact 3.3-5: SU (similar to but less than the Project) because projects facilitated by this alternative could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. However, this alternative would likely result in a lesser impact than the Project, because it would involve fewer projects through 2030 and 2035 that could cause other changes in the existing environment that would make remaining productive agricultural lands less productive and thereby result in conversion. Implementing Mitigation Measure 3.3-1 would lessen the impact but would not ensure that conversion would not occur. Impact 3.3-6: LTS (similar to but less than the Project) because projects facilitated by this alternative could result in other changes in the existing environment which, due to their location or nature, result in conversion of forest land to non-forest use, projects facilitated by this alternative would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for many project types. Impact 3.3-7: SU (similar to but less than the Project) because projects facilitated by this alternative would cause a significant cumulative contribution to the conversion of designated Farmland. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause a significant cumulative contribution to the conversion of designated Farmland. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. Impact 3.3-8: SU (similar to but less than the Project) because projects facilitated by this alternative would result in a cumulatively significant conflict with a designated Agricultural Resource Area. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in a cumulatively significant conflict with a designated Agricultural Resource Area. Implementing Mitigation Measure 3.3-1 would reduce but not avoid this significant cumulative impact. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|------------------------------------|---|--|---|--|---|
| 3.3 (cont.) | Agriculture and Forestry Resources | <p>Impact 3.3-11: SU. The Project, as a result of projects facilitated by the Draft 2045 CAP, would cause a significant unavoidable contribution to a cumulative impact related to other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use. Implementing Mitigation Measure 3.3-1 would lessen the Project's cumulative contribution to conversion-related impacts but would not ensure that other changes resulting in conversion would not occur.</p> <p>Impact 3.3-12: LTS. The Project would result in a less-than-significant cumulative impact because projects facilitated by the Draft 2045 CAP would not involve other changes in the existing environment which, due to their location or nature, could result in cumulative conversion of forest land to non-forest use because projects facilitated by the Draft 2045 CAP would not likely be proposed on forest land because the characteristics of forest land make it unsuitable for many project types.</p> | | | | <ul style="list-style-type: none"> Impact 3.3-9: No Impact (same as the Project) because projects facilitated by this alternative would not result in a cumulatively considerable conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Impact 3.3-10: LTS (similar to but less than the Project) because no significant cumulative impact related to the loss of forest land or conversion of forest land to non-forest use exists to which the alternative could contribute. Impact 3.3-11: SU (similar to but less than the Project) because projects facilitated by this alternative would cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use. Implementing Mitigation Measure 3.3-1 would lessen the alternative's cumulative contribution to conversion-related impacts, but would not ensure that other changes resulting in conversion would not occur. Impact 3.3-12: LTS (similar to but less than the Project) because projects facilitated by this alternative would not involve other changes in the existing environment, which due to their location or nature, would result in cumulative conversion of forest land to non-forest use. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in conversion of forest land to non-forest use. |
| 3.4 | Air Quality | <p>Impact 3.4-1: SU. The Project would result in a significant unavoidable impact related to conflict with or obstruction of the implementation of the applicable air quality plan because construction of future projects facilitated by the Draft 2045 CAP could result in the generation of criteria pollutant emissions that could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Future construction and operation facilitated by the Project would be consistent with the control strategies of the SCAQMD Air Quality Management Plan or AVAQMD Air Quality Plan; construction jobs generated by projects facilitated by the Project would not conflict with the long-term employment or population projections upon which the AQMPs are based; and the Project would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would generally not conflict with the growth projections in the 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of this impact, but not to less-than-significant levels.</p> | <ul style="list-style-type: none"> Overall: + (less than the Project) Impact 3.4-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could conflict with or obstruct implementation of the applicable air quality plan. Impact 3.4-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could result in any short-term construction or operational emissions that could exceed the SCAQMD's project-level thresholds. Nonetheless, in contrast to the Project, the No Project Alternative would not reduce Countywide criteria pollutant emissions and so would result in a greater impact than the Project. Impact 3.4-3a: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. However, the No Project Alternative would result in a greater impact associated with exposure of sensitive receptors to operational TAC emissions because the No Project Alternative would not reduce Countywide TAC emissions and associated exposures, while the Project would substantially reduce Countywide TAC emissions and associated exposures. Impact 3.4-3b: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would expose sensitive receptors to pollutant concentrations from dust that could carry Valley Fever spores. | <ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.4-1: SU (same as the Project) because construction of future projects facilitated by the alternative could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Future construction and operation facilitated by the alternative would be consistent with the control strategies of the SCAQMD Air Quality Management Plan or AVAQMD Air Quality Plan; construction jobs generated by projects facilitated by this alternative would not conflict with the long-term employment or population projections upon which the AQMPs are based; and the alternative would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would generally not conflict with the growth projections in the 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of potential emissions but would not reduce this impact to a less-than-significant level. | <ul style="list-style-type: none"> Overall: + (similar to but greater than the Project; similar to but greater than the project for construction impacts and similar to but less than the project for operational impacts) Impact 3.4-1: SU (same as the Project) because construction of future projects facilitated by the alternative could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emissions reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Future construction and operation facilitated by the alternative would be consistent with the control strategies of the SCAQMD Air Quality Management Plan or AVAQMD Air Quality Plan; construction jobs generated by projects facilitated by this alternative would not conflict with the long-term employment or population projections upon which the AQMPs are based; and the alternative would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would generally not conflict with the growth projections in the 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of potential emissions but would not reduce this impact to a less-than-significant level. | <ul style="list-style-type: none"> Overall: = (similar to but less than the Project; similar to but less than the project for construction impacts and similar to but greater than the project for operational impacts), although a conclusion of either greater than or less than the Project could also be drawn. This alternative could possibly have greater impacts than the Project (still SU) because it would involve fewer projects through 2030 and 2035, which would reduce emissions of criteria pollutants and TACs throughout the county for these years as a co-benefit of reducing GHG emissions, given that fewer projects would be needed to achieve the lower targets. Alternatively, the implementation of fewer projects could have reduced project-specific, localized air quality impacts, which would have less of an impact than the Project. Impact 3.4-1: SU (same as the Project) because construction of future projects facilitated by the alternative could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emissions reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Future construction and operation facilitated by the alternative would be consistent with the control strategies of the SCAQMD Air Quality Management Plan or AVAQMD Air Quality Plan; construction jobs generated by projects facilitated by this alternative would not conflict with the long-term employment or population projections upon which the AQMPs are based; and the alternative would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021–2029 Housing Element and would generally not conflict with the growth projections in the 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|---------------------------|---------------------------|---|---|---|---|--|
| <p>3.4 (cont.)</p> | <p>Air Quality</p> | <p>Impact 3.4-2: SU. The Project would result in a significant unavoidable impact associated with a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard because the development of projects facilitated by Draft 2045 CAP measures and actions could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds. Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-3a: SU. The Project could result in a significant unavoidable impact associated with exposure of sensitive receptors to substantial pollutant concentrations because the development of projects facilitated by Draft 2045 CAP measures and actions could result in generation of toxic air pollutant concentrations that exceed risk thresholds. Mitigation Measures 3.4-1 through 3.4-7 would reduce the severity of the impact; however, impacts from construction-related localized emissions and TAC emissions may not be reduced to below the thresholds and impacts would remain significant and unavoidable.</p> <p>Impact 3.4-3b: LTSM. The Project would result in a less-than-significant impact with mitigation associated with exposure of sensitive receptors to substantial pollutant concentrations relating to Valley Fever. Compliance with independently enforceable legal obligations would help ensure that the dust that could carry Valley Fever spores would be adequately controlled. Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce this impact to a less-than-significant level.</p> <p>Impact 3.4-4: LTS. The Project would result in a less-than-significant impact because it would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.</p> <p>Impact 3.4-5: SU. The Project would result in a significant and unavoidable impact because construction of future projects facilitated by Draft 2045 CAP measures and actions could increase the frequency or severity of an existing violation or cause or contribute to new violations, and could therefore conflict with or obstruct implementation of the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-6: SU. The Project would result in a significant unavoidable impact because the development of projects facilitated by Draft 2045 CAP measures and actions could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds, and therefore, the Project could result in cumulatively considerable emissions and cumulatively significant air quality impacts. Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of this impact, but not to less-than-significant levels.</p> <p>Impact 3.4-7: SU. The Project would result in a significant and unavoidable impact because projects facilitated by the Draft 2045 CAP would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites that could exceed the SCAQMD and AVAQMD significance thresholds, and therefore could contribute to a significant cumulative impact on air quality associated with TAC emissions. Mitigation Measures 3.4-1 through 3.4-8 would reduce the severity of this impact, but not to less-than-significant levels. In addition, Valley Fever cumulative impacts</p> | <ul style="list-style-type: none"> Impact 3.4-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people. Impact 3.4-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could conflict with or obstruct implementation of the applicable air quality plan. Impact 3.4-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that could result in any short-term construction or operational emissions that could exceed the SCAQMD's project-level thresholds, and therefore, the alternative would not result in cumulatively considerable emissions and cumulatively significant air quality impacts. Impact 3.4-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites including Valley Fever; however, it would result in a greater impact associated with exposure of sensitive receptors to operational TAC emissions because it would not reduce Countywide TAC emissions and associated exposures, while the Project would substantially reduce Countywide TAC emissions and associated exposures. Impact 3.4-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that affect a substantial number of people, and therefore, impacts would not be cumulatively considerable. | <ul style="list-style-type: none"> Impact 3.4-2: SU (similar to but less than the Project) because projects facilitated by this alternative would result in short-term construction emissions that could exceed the SCAQMD's project-level thresholds; however, it would likely result in a reduced impact associated with operational emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced criteria pollutant emissions). Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.4-3a: SU (similar to but less than the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites; however, this alternative would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced TAC emissions). Mitigation Measures 3.4-1 through 3.4-7 would reduce the severity of this impact; however, impacts from construction-related localized emissions and TAC emissions may not be reduced to below the thresholds, and the impact would remain significant and unavoidable. Impact 3.4-3b: LTSM (same as the Project) because projects facilitated by Alternative 1 would be subject to the same independently enforceable regulatory controls to ensure that dust that could carry Valley Fever spores would be adequately controlled. Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce this impact to a less-than-significant level. Impact 3.4-4: LTS (same as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people. Impact 3.4-5: SU (same as the Project) because construction of future projects facilitated by this alternative could increase the frequency or severity of an existing violation or cause or contribute to new violations and could therefore conflict with or obstruct implementation of the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.4-6: SU (similar to but less than the Project) because projects facilitated by this alternative could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds, and therefore, this alternative could result in cumulatively considerable emissions and cumulatively significant air quality impacts. However, this alternative would likely result in a reduced impact associated with operational emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced criteria pollutant emissions). Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of the impact, but not to less-than-significant levels. | <ul style="list-style-type: none"> Impact 3.4-2: SU (similar to but greater than the Project) because projects facilitated by this alternative would result in short-term construction emissions that could exceed the SCAQMD's project-level thresholds; however, it would likely result in a greater impact associated with construction emissions because it would involve additional construction for ZNE buildings, and it would likely result in a reduced impact associated with operational criteria pollutant emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the operation of ZNE buildings. Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.4-3a: SU (similar to but greater than the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. However, this alternative would likely result in a greater impact associated with exposure of sensitive receptors to construction-related TAC emissions because it would involve additional construction for ZNE buildings; and it would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the operation of ZNE buildings. Mitigation Measures 3.4-1 through 3.4-7 would reduce the severity of the impact; however, impacts from construction-related localized emissions and TAC emissions may not be reduced to below the thresholds and the impact would remain significant and unavoidable. Impact 3.4-3b: LTSM (same as the Project) because projects facilitated by Alternative 2 would be subject to the same independently enforceable regulatory controls to ensure that dust that could carry Valley Fever spores would be adequately controlled. Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce this impact to a less-than-significant level. Impact 3.4-4: LTSM (same as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people. Impact 3.4-5: SU (same as the Project) because construction of future projects facilitated by this alternative could increase the frequency or severity of an existing violation or cause or contribute to new violations and could therefore conflict with or obstruct implementation of the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.4-6: LTSM (similar to but greater than the Project) because projects facilitated by this alternative could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds, and therefore, this alternative could result in cumulatively considerable emissions and cumulatively significant air quality impacts. However, this alternative would likely result in a greater impact associated with construction emissions because it would involve additional construction for ZNE buildings; and it would likely result in a reduced impact associated with operational criteria pollutant emissions because it would likely reduce Countywide criteria pollutant emissions more than the Project through the operation of ZNE buildings. Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of the impact, but not to less-than-significant levels. | <p>Measures 3.4-1 through 3.4-3 would reduce the severity of potential emissions but would not reduce this impact to a less-than-significant level.</p> <ul style="list-style-type: none"> Impact 3.4-2: SU (similar to but less than as the Project) because projects facilitated by this alternative would result in short-term construction emissions that could exceed SCAQMD's project-level thresholds. This alternative would likely result in a lesser impact associated with construction emissions for 2030 and 2035 because it could involve fewer construction activities needed to achieve the reduced targets for these years. However, it would likely result in a greater impact associated with operational emissions for 2030 and 2035 because it would likely result in greater Countywide criteria pollutant emissions than the Project, given that fewer GHG emission reduction projects would be needed to achieve the lower targets for these years. Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.4-3a: SU (similar to but less than as the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. This alternative would likely result in a reduced impact associated with exposure of sensitive receptors to construction TAC emissions for 2030 and 2035 because it could involve fewer construction activities needed to achieve the reduced targets for these years. However, this alternative would likely result in an increased impact associated with exposure of sensitive receptors to operational TAC emissions for 2030 and 2035 because it would not reduce Countywide TAC emissions and associated exposures as much as the Project for these years. Mitigation Measures 3.4-1 through 3.4-7 would reduce the severity of the impact; however, impacts from construction-related localized emissions and TAC emissions may not be reduced to below the thresholds, and the impact would remain significant and unavoidable. Impact 3.4-3b: LTSM (same as the Project) because projects facilitated by Alternative 3 would be subject to the same independently enforceable regulatory controls to ensure that dust that could carry Valley Fever spores would be adequately controlled. Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce this impact to a less-than-significant level. Impact 3.4-4: LTS (same as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people. Impact 3.4-5: SU (same as the Project) because construction of future projects facilitated by this alternative could increase the frequency or severity of an existing violation or cause or contribute to new violations and could therefore conflict with or obstruct implementation of the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.4-6: SU (similar to but less than as the Project) because projects facilitated by this alternative could result in the generation of criteria pollutant emissions that would potentially exceed air district construction and operational significance thresholds, and therefore, this alternative could result in cumulatively considerable emissions and cumulatively significant air quality impacts. This alternative would likely result in a reduced impact associated with construction emissions for 2030 and 2035 because it could |

TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|----------------|----------------------|--|---|--|---|---|
| 3.4 (cont.) | Air Quality | <p>would be significant and the project contribution would be cumulatively considerable. However, implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce Valley Fever cumulative impacts to less than significant.</p> <p>Impact 3.4-8: LTS. The Project would result in a less-than-significant impact because it would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and therefore, impacts would not be cumulatively considerable.</p> | <ul style="list-style-type: none"> • | <ul style="list-style-type: none"> • Impact 3.4-7: SU (<i>similar to but less than</i> the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites; however, this alternative would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the implementation of carbon offsets (which sometimes have the co-benefit of reduced TAC emissions). Mitigation Measures 3.4-1 through 3.4-8 would reduce the severity of this impact, but not to less-than-significant levels. In addition, Valley Fever cumulative impacts would be potentially significant and Alternative 1's contribution would be cumulatively considerable. However, implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce Valley Fever cumulative impacts to less than significant. • Impact 3.4-8: LTS (<i>same</i> as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people, and therefore, impacts would not be cumulatively considerable. | <ul style="list-style-type: none"> • Impact 3.4-7: SU (<i>similar to but greater</i> than the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. However, this alternative would likely result in a greater impact associated with exposure of sensitive receptors to construction-related TAC emissions because it would involve additional construction for ZNE buildings; and it would likely result in a reduced impact associated with exposure of sensitive receptors to operational TAC emissions because it would likely reduce Countywide TAC emissions and associated exposures more than the Project through the operation of ZNE buildings. Mitigation Measures 3.1-1 through 3.4-8 would reduce the severity of this impact, but not to less-than-significant levels. In addition, Valley Fever cumulative impacts would be significant and Alternative 2's contribution would be cumulatively considerable. However, implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce Valley Fever cumulative impacts to less than significant. • Impact 3.4-8: LTS (<i>same</i> as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people, and therefore, impacts would not be cumulatively considerable. | <p>involve fewer construction activities needed to achieve the reduced targets in these years. However, it would likely result in a greater impact associated with operational emissions because it would likely result in greater Countywide criteria pollutant emissions than the Project for 2030 and 2035, given that fewer GHG emissions reduction projects would be needed to achieve the lower targets in these years. Mitigation Measures 3.4-1 through 3.4-5 would reduce the severity of this impact, but not to less-than-significant levels.</p> <ul style="list-style-type: none"> • Impact 3.4-7: SU (<i>similar to but less than</i> as the Project) because projects facilitated by this alternative would expose sensitive receptors to pollutant concentrations from localized TAC emissions near future project sites. This alternative would likely result in a reduced impact associated with exposure of sensitive receptors to construction TAC emissions for 2030 and 2035 because it could involve fewer construction activities needed to achieve the reduced targets in these years. However, this alternative would likely result in an increased impact associated with exposure of sensitive receptors to operational TAC emissions because it would not reduce Countywide TAC emissions and associated exposures as much as the Project for 2030 and 2035. Mitigation Measures 3.4-1 through 3.4-8 would reduce the severity of this impact, but not to less-than-significant levels. In addition, Valley Fever cumulative impacts would be significant and Alternative 3's contribution would be cumulatively considerable. However, implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 would reduce Valley Fever cumulative impacts to less than significant. • Impact 3.4-8: LTS (<i>same</i> as the Project) because it would not increase exposure of people to other emissions such as those leading to odors and would not have the potential to generate odors that would affect a substantial number of people, and therefore, impacts would not be cumulatively considerable. |
| 3.5 | Biological Resources | <p>Impact 3.5-1: LTSM. The Project would result in a less-than-significant impact with mitigation on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS, because the development of projects facilitated by the Draft 2045 CAP could cause mortality of special-status species or result in habitat loss or modification of such species. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels.</p> <p>Impact 3.5-2: SU. The Project would result in a significant and unavoidable adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS because the development of projects facilitated by the Draft 2045 CAP could result in the loss of common, non-sensitive habitat. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels.</p> | <ul style="list-style-type: none"> • Overall: – (<i>less than the Project</i>) • Impact 3.5-1: No impact (<i>less than</i> the Project) because the No Project Alternative would not facilitate projects that would have a direct adverse impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. • Impact 3.5-2: No impact (<i>less than</i> the Project) because the No Project Alternative would not facilitate projects that would result in the loss of common, non-sensitive habitat and therefore would not result in an adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. | <ul style="list-style-type: none"> • Overall: = (<i>same as the Project</i>) • Impact 3.5-1: LTSM (<i>same as</i> the Project) because projects facilitated by this alternative could cause mortality of special-status species or result in habitat loss or modification of such species. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. • Impact 3.5-2: SU (<i>same as</i> the Project) because projects facilitated by this alternative could result in the loss of common, non-sensitive habitat. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. | <ul style="list-style-type: none"> • Overall: = (<i>same as the Project</i>) • Impact 3.5-1: LTSM (<i>same as</i> the Project) because projects facilitated by this alternative could cause mortality of special-status species or result in habitat loss or modification of such species. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. • Impact 3.5-2: SU (<i>same as</i> the Project) because projects facilitated by this alternative could result in the loss of common, non-sensitive habitat. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. | <ul style="list-style-type: none"> • Overall: – (<i>similar to but less than the Project</i>) • Impact 3.5-1: LTSM (<i>similar to but less than</i> the Project) because projects facilitated by this alternative could cause mortality of special-status species or result in habitat loss or modification of such species. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause mortality of special-status species or result in habitat loss or modification of such species. Mitigation Measures 3.5-1 and 3.5-2 would reduce this impact to less-than-significant levels. • Impact 3.5-2: SU (<i>similar to but less than</i> the Project) because projects facilitated by this alternative could result in the loss of common, non-sensitive habitat. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in the loss of common, non-sensitive habitat. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|---------------------------|------------------------------------|--|---|---|---|---|
| <p>3.5 (cont.)</p> | <p>Biological Resources</p> | <p>Impact 3.5-3: SU. The Project would result in a significant and unavoidable adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations, or by CDFW or USFWS because the development of projects facilitated by the Draft 2045 CAP could result in direct removal or conversion of habitat or indirectly through introduction of nonnative, invasive plants into the sensitive natural community and/or reduction of sensitive natural communities. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels.</p> <p>Impact 3.5-4: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) because the development of projects facilitated by the Draft 2045 CAP could result in removal, filling, hydromodification, or diversion or change in water quality. Mitigation Measures 3.5-1 and 3.5-4 would reduce this impact to less-than-significant levels.</p> <p>Impact 3.5-5: SU. The Project would result in a significant and unavoidable adverse indirect impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites because the development of projects facilitated by the Draft 2045 CAP could narrow existing corridors or remove them completely. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of this impact, but not to less-than-significant levels.</p> <p>Impact 3.5-6: LTSM. The Project would result in a less-than-significant impact with mitigation due to conversion of oak woodlands or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.) because the development of projects facilitated by the Draft 2045 CAP could result in direct tree or woodland removal if construction vehicles would drive over woodland root systems or if watersheds that rely on recycled water receive reduced recycled water amounts due to other water diversions within the watershed or drought; however, compliance with existing ordinances and requirements would limit the impacts and subsequent CEQA reviews for such projects would require mitigation to reduce any identified significant impact. Mitigation Measures 3.5-1 and 3.5-5 would reduce this impact to less-than-significant levels.</p> <p>Impact 3.5-7: SU. The Project would result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels.</p> <p>Impact 3.5-8: SU. The Project would result in a significant and unavoidable cumulatively considerable contribution to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels.</p> | <ul style="list-style-type: none"> Impact 3.5-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in an adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Impact 3.5-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in an adverse impact, filling, hydromodification, or diversion or change in water quality, and therefore, it would not result in an adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.). Impact 3.5-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Impact 3.5-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would convert oak woodlands or other unique native woodlands. Impact 3.5-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Impact 3.5-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution with mitigation incorporated to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Impact 3.5-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution with mitigation incorporated to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. | <ul style="list-style-type: none"> Impact 3.5-3: SU (same as the Project) because projects facilitated by this alternative could result in direct removal or conversion of habitat or indirectly through introduction of nonnative, invasive plants into the sensitive natural community and/or reduction of sensitive natural communities. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-4: LTSM (same as the Project) because projects facilitated by this alternative could result in direct removal, filling, hydromodification, or diversion or change in water quality. Mitigation Measures 3.5-1 and 3.5-4 would reduce this impact to less-than-significant levels. Impact 3.5-5: SU (same as the Project) because projects facilitated by this alternative could narrow existing wildlife corridors or remove them completely. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-6: LTSM (same as the Project) because projects facilitated by this alternative could result in direct tree or woodland removal if construction vehicles would drive over woodland root systems, or if watersheds that rely on recycled water receive reduced recycled water amounts due to other water diversions within the watershed or drought; however, compliance with existing ordinances and other requirements would limit the impacts and subsequent CEQA reviews for such projects would require mitigation to reduce any identified significant impact. Mitigation Measures 3.5-1 and 3.5-5 would reduce this impact to less-than-significant levels. Impact 3.5-7: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-8: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-9: LTSM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. Mitigation Measures 3.5-1 and 3.5-3 would reduce this impact to less-than-significant levels. | <ul style="list-style-type: none"> Impact 3.5-3: SU (same as the Project) because projects facilitated by this alternative could result in direct removal or conversion of habitat or indirectly through introduction of nonnative, invasive plants into the sensitive natural community and/or reduction of sensitive natural communities. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-4: LTSM (same as the Project) because projects facilitated by this alternative could result in direct removal, filling, hydromodification, or diversion or change in water quality. Mitigation Measures 3.5-1 and 3.5-4 would reduce this impact to less-than-significant levels. Impact 3.5-5: SU (same as the Project) because projects facilitated by this alternative could narrow existing wildlife corridors or remove them completely. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-6: LTSM (same as the Project) because projects facilitated by this alternative could result in direct tree or woodland removal if construction vehicles would drive over woodland root systems, or if watersheds that rely on recycled water would receive reduced recycled water amounts due to other water diversions within the watershed or drought; however, compliance with existing ordinances and other requirements would limit the impacts and subsequent CEQA reviews for such projects would require mitigation to reduce any identified significant impact. Mitigation Measures 3.5-1 and 3.5-5 would reduce this impact to less-than-significant levels. Impact 3.5-7: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-8: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-9: LTSM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. Mitigation Measures 3.5-1 and 3.5-3 would reduce this impact to less-than-significant levels. | <ul style="list-style-type: none"> Impact 3.5-3: SU (similar to but less than the Project) because projects facilitated by this alternative could result in direct removal or conversion of habitat or indirectly through introduction of nonnative, invasive plants into the sensitive natural community and/or reduction of sensitive natural communities. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in direct or indirect removal or conversion of habitat. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-4: LTSM (similar to but less than the Project) because projects facilitated by this alternative could result in direct removal, filling, hydromodification, or diversion or change in water quality. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in direct removal, filling, hydromodification, or diversion or change in water quality. Mitigation Measures 3.5-1 and 3.5-4 would reduce this impact to less-than-significant levels. Impact 3.5-5: SU (similar to but less than the Project) because projects facilitated by this alternative could narrow existing wildlife corridors or remove them completely. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could narrow existing wildlife corridors or remove them completely. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-6: LTSM (similar to but less than the Project) because projects facilitated by this alternative could result in direct tree or woodland removal if construction vehicles would drive over woodland root systems, or if watersheds that rely on recycled water would receive reduced recycled water amounts due to other water diversions within the watershed or drought. This alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in direct tree or woodland removal. However, compliance with existing ordinances and other requirements would limit the impacts and subsequent CEQA reviews for such projects would require mitigation to reduce any identified significant impact. Mitigation Measures 3.5-1 and 3.5-5 would reduce this impact to less-than-significant levels. Impact 3.5-7: SU (similar to but less than the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact through habitat modifications on one or more species. Mitigation Measures 3.5-1 and 3.5-2 would reduce the severity of this impact, but not to less-than-significant levels. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------------------------|------------------------------------|--|---|--|--|---|
| <p>3.5 (cont.)</p> | <p>Biological Resources</p> | <p>Impact 3.5-9: LTSM. The Project would result in a less-than-significant cumulatively considerable contribution with mitigation incorporated to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. Mitigation Measures 3.5-1 and 3.5-3 would reduce this impact to less-than-significant levels.</p> <p>Impact 3.5-10: SUM. The Project would result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of the Project's contribution, but not to a less-than-significant level.</p> <p>Impact 3.5-11: SU. The Project would result in a cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. Mitigation Measures 3.5-1, and 3.5-5 would reduce this impact, but not to a to less-than-significant level.</p> | <ul style="list-style-type: none"> Impact 3.5-10: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Impact 3.5-11: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in a cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. | <ul style="list-style-type: none"> Impact 3.5-10: SUM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-11: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. Mitigation Measures 3.5-1 and 3.5-5 would reduce this impact, but not to less-than-significant levels. | <ul style="list-style-type: none"> Impact 3.5-10: SUM (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-11: SU (same as the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. Mitigation Measures 3.5-1 and 3.5-5 would reduce this impact, but not to less-than-significant levels. | <ul style="list-style-type: none"> Impact 3.5-8: SU (similar to but less than the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, or regulations or by CDFW or USFWS. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in a cumulatively considerable contribution to a cumulative impact on sensitive natural communities. Mitigation Measures 3.5-1 and 3.5-5 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-9: LTSM (similar to but less than the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in a cumulatively considerable contribution to a cumulative impact on state or federally protected wetlands. Mitigation Measures 3.5-1 and 3.5-3 would reduce this impact to less-than-significant levels. Impact 3.5-10: SUM (similar to but less than the Project) because projects facilitated by this alternative could result in a cumulatively considerable significant and unavoidable contribution to a cumulative impact related to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or to an impediment to the use of native wildlife nursery sites. Mitigation Measures 3.5-1 and 3.5-4 would reduce the severity of this impact, but not to less-than-significant levels. Impact 3.5-11: SU (similar to but less than the Project) because projects facilitated by this alternative could result in a cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in a cumulatively considerable contribution to a cumulative impact relative to conversion of oak woodlands or other unique native woodlands. Mitigation Measures 3.5-1 and 3.5-5 would reduce this impact, but not to less-than-significant levels. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|--------------------|---|--|---|--|---|
| 3.6 | Cultural Resources | <p>Impact 3.6-1: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated by causing a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, because the development of projects facilitated by the Draft 2045 CAP could adversely affect known resources and unknown resources to be discovered. Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant.</p> <p>Impact 3.6-2: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated by causing a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5, because the development of projects facilitated by the Draft 2045 CAP could result in direct or indirect adverse changes to unique archaeological resources. Implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant.</p> <p>Impact 3.6-3: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated by directly or indirectly destroying a unique paleontological resource or site or unique geologic feature, because the development of projects facilitated by the Draft 2045 CAP could result in direct or indirect adverse changes to unique paleontological resources. Implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant.</p> <p>Impact 3.6-4: LTSM. The Project would result in a less-than-significant impact with mitigation incorporated on human remains, including those interred outside of dedicated cemeteries, because the development of projects facilitated by the Draft 2045 CAP could result in ground-disturbing activities that could affect human remains interred outside of a dedicated cemetery. Implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant.</p> <p>Impact 3.6-5: LTSM. The Project would result in a less-than-significant cumulatively considerable contribution with mitigation incorporated to a cumulative impact on historical resources. Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant.</p> <p>Impact 3.6-6: LTSM. The Project would result in a less-than-cumulatively considerable contribution with mitigation incorporated to a cumulative impact on unique archaeological resources. Implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant.</p> <p>Impact 3.6-7: LTSM. The Project would result in a less-than-cumulatively considerable contribution with mitigation incorporated to a cumulative impact on unique paleontological resources or sites or unique geologic features. Implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant.</p> <p>Impact 3.6-8: LTSM. The Project would result in a less-than-cumulatively considerable contribution with mitigation incorporated to a cumulative impact on human remains, including those interred outside of dedicated cemeteries. Implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.6-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. • Impact 3.6-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. • Impact 3.6-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. • Impact 3.6-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would disturb human remains, including those interred outside of dedicated cemeteries. • Impact 3.6-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on historical resources. • Impact 3.6-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on unique archaeological resources. • Impact 3.6-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features. • Impact 3.6-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact on human remains, including those interred outside of dedicated cemeteries. | <ul style="list-style-type: none"> • Overall: = (same as than the Project) • Impact 3.6-1: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5; however, implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant. • Impact 3.6-2: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5; however, implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant. • Impact 3.6-3: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; however, implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant. • Impact 3.6-4: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that could disturb human remains, including those interred outside of dedicated cemeteries; however, implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant. • Impact 3.6-5: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on historical resources; however, implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant. • Impact 3.6-6: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on unique archaeological resources; however, implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant. • Impact 3.6-7: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features; however, implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant. • Impact 3.6-8: LTSM (same as the Project) because carbon offset projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on human remains, including those interred outside of dedicated cemeteries; however, implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant. | <ul style="list-style-type: none"> • Overall: = (same as than the Project) • Impact 3.6-1: LTSM (same as the Project) because the demolition or alteration of existing buildings and/or structures or other aboveground infrastructure could cause a significant impact on a historical resource pursuant to CEQA Guidelines Section 15064.5, including historic architectural resources. Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant. • Impact 3.6-2: LTSM (same as the Project) because the same projects that could be facilitated by the Project's measures actions also could be facilitated by Alternative 2 and so also would require the implementation of Mitigation Measures 3.6-2 through 3.6-6 to reduce the impact to less than significant. Alternative 2's addition of ZNE projects would result in the demolition or alteration of existing buildings and other work to incorporate building design elements that reduce energy demand; however, the ZNE projects would be unlikely to involve ground disturbance outside an existing building or structure's prior construction zone and thereby cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. • Impact 3.6-3: LTSM (same as the Project) because the same projects that could be facilitated by the Project also could be facilitated by Alternative 2 and so also would require the implementation of Mitigation Measures 3.6-7 through 3.6-9 to reduce the impact to less than significant. Alternative 2's addition of ZNE projects would result in the demolition or alteration of existing buildings and other work to incorporate building design elements that reduce energy demand; however, such projects are unlikely to involve ground disturbance outside an existing building or structure's prior construction zone and thereby result in direct or indirect destruction of a unique paleontological resource or site or unique geologic feature. • Impact 3.6-4: LTSM (same as the Project) because the same projects that could be facilitated by the Project also could be facilitated by Alternative 2 and so also would require the implementation of Mitigation Measure 3.6-10 to reduce the impact to less than significant. Alternative 2's addition of ZNE projects would result in the demolition or alteration of existing buildings and other work to incorporate building design elements that reduce energy demand; however, such projects are unlikely to involve ground disturbance outside an existing building or structure's prior construction zone and thereby result in the disturbance of human remains, including those interred outside of dedicated cemeteries. • Impact 3.6-5: LTSM (same as the Project) because this alternative's significant incremental contribution to a significant cumulative impact on historical resources would be reduced to a less than cumulatively considerable level with implementation of Mitigation Measures 3.6-1 through 3.6-6. • Impact 3.6-6: LTSM (same as the Project) because this Alternative's incremental less-than-significant contribution to cumulative impacts would not cause or contribute to any significant cumulative impact on unique archaeological resources. • Impact 3.6-7: LTSM (same as the Project) because this Alternative's incremental less than significant contribution would not cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features. | <ul style="list-style-type: none"> • Overall: – (similar to but less than the Project) • Impact 3.6-1: LTSM (similar to but less than the Project) because the demolition or alteration of existing buildings and/or structures or other aboveground infrastructure could cause a significant impact on a historical resource pursuant to CEQA Guidelines Section 15064.5, including historic architectural resources. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could involve the demolition or alteration of existing buildings and historical resources. Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant. • Impact 3.6-2: LTSM (similar to but less than the Project) because projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause a substantial direct or indirect adverse change in the significance of a unique archaeological resource. Implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant. • Impact 3.6-3: LTSM (similar to but less than the Project) because projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant. • Impact 3.6-4: LTSM (similar to but less than the Project) because projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that could disturb human remains, including those interred outside of dedicated cemeteries; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could disturb human remains. Implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant. • Impact 3.6-5: LTSM (similar to but less than the Project) because projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on historical resources; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative impact on historical resources. Implementation of Mitigation Measures 3.6-1 through 3.6-6 would reduce the impact to less than significant. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|----------------|--------------------|--|---|---|---|---|
| 3.6 (cont.) | Cultural Resources | | | | <ul style="list-style-type: none"> Impact 3.6-8: LTSM (same as the Project) because this Alternative's incremental less than significant contribution would not cause or contribute to any significant cumulative impact on human remains, including those interred outside of dedicated cemeteries. | <ul style="list-style-type: none"> Impact 3.6-6: LTSM (similar to but less than the Project) because projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on unique archaeological resources; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative impact on unique archaeological resources. Implementation of Mitigation Measures 3.6-2 through 3.6-6 would reduce the impact to less than significant. Impact 3.6-7: LTSM (similar to but less than the Project) because projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative impact on unique paleontological resources or sites or unique geologic features. Implementation of Mitigation Measures 3.6-7 through 3.6-9 would reduce the impact to less than significant. Impact 3.6-8: LTSM (similar to but less than the Project) because projects facilitated by this alternative could include new renewable energy or other ground-disturbing projects that would cause or contribute to any significant cumulative impact on human remains, including those interred outside of dedicated cemeteries; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative impact on human remains. Implementation of Mitigation Measure 3.6-10 would reduce the impact to less than significant. |
| 3.7 | Energy | <p>Impact 3.7-1: No Impact. The Project would result in no potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.</p> <p>Impact 3.7-2: No Impact. The Project would result in no impact related to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.</p> | <ul style="list-style-type: none"> Overall: + (greater than the Project) Impact 3.7-1: LTS (greater than the Project) because the No Project Alternative would not facilitate any projects that would reduce Countywide energy use, while the Project would substantially reduce Countywide energy use. However, this alternative would not result in wasteful, inefficient, or unnecessary consumption of energy resources and therefore would result in a less-than-significant impact. Impact 3.7-2: LTS (greater than the Project) because the No Project Alternative would not facilitate any projects that would reduce Countywide energy use or increase renewable energy use, while the Project would substantially reduce Countywide energy use and substantially increase renewable energy use. However, this alternative would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and therefore would result in a less-than-significant impact. | <ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.7-1: No Impact (same as the Project) because it would result in no potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. However (less than the Project), this alternative may improve conditions (i.e., result in a beneficial effect) related to reduced Countywide energy use relative to the Project through the purchase and retirement of carbon offsets. Impact 3.7-2: No Impact (same as the Project) because it would result in no impact related to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. However (less than the Project), this alternative may improve conditions (i.e., result in a beneficial effect) related to a reduction in Countywide energy use and/or increase in renewable energy use relative to the Project through the purchase and retirement of carbon offsets, which would further the aims of applicable state or local plans for renewable energy or energy efficiency. | <ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.7-1: No Impact (same as the Project) because it would result in no potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. However (less than the Project), this alternative would likely improve conditions (i.e., result in a beneficial effect) related to reduced Countywide energy use relative to the Project via the operation of ZNE buildings. Impact 3.7-2: No Impact (same as the Project) because it would result in no impact related to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. However (less than the Project), this alternative would likely improve conditions (i.e., result in a beneficial effect) related to a reduction in Countywide energy use and/or increase in renewable energy use relative to the Project via the operation of ZNE buildings, which would further the aims of applicable state or local plans for renewable energy or energy efficiency. | <ul style="list-style-type: none"> Overall: + (similar to but greater than the Project) Impact 3.7-1: LTS (similar to but greater than the Project) because Alternative 3 would facilitate fewer projects that would reduce Countywide energy use compared to the Project, which would substantially reduce Countywide energy use. However, this alternative would not result in wasteful, inefficient, or unnecessary consumption of energy resources and therefore would result in a less-than-significant impact. Impact 3.7-2: LTS (similar to but greater than the Project) because Alternative 3 would facilitate fewer projects that would reduce Countywide energy use or increase renewable energy use compared to the Project, which would substantially reduce Countywide energy use and substantially increase renewable energy use. However, this alternative would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and therefore would result in a less-than-significant impact. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|-------------------|--|--|---|---|--|
| 3.8 | Geology and Soils | <p>Impact 3.8-1: LTS. The Project would result in a less-than-significant impact related to the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace, because adherence to Project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects from the presence of a known Earthquake Fault Zone would be less than significant.</p> <p>Impact 3.8-2: LTS. The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.</p> <p>Impact 3.8-3: LTS. The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading.</p> <p>Impact 3.8-4: LTS. The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.</p> <p>Impact 3.8-5: LTS. The Project would not result in substantial soil erosion or loss of topsoil.</p> <p>Impact 3.8-6: LTS. The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.</p> <p>Impact 3.8-7: LTS. The Project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.</p> <p>Impact 3.8-8: LTS. The Project would not have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater.</p> <p>Impact 3.8-9: LTS. The Project would not conflict with the Hillside Management Area Ordinance.</p> <p>Impact 3.8-10: LTS. The Project would result in less-than-significant cumulative impacts related to geology and soils.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.8-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace. • Impact 3.8-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. • Impact 3.8-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction and lateral spreading. • Impact 3.8-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. • Impact 3.8-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would result in substantial soil erosion or loss of topsoil. • Impact 3.8-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. • Impact 3.8-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. • Impact 3.8-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater. • Impact 3.8-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would conflict with the Hillside Management Area Ordinance. • Impact 3.8-10: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any cumulative impacts related to geology and soils. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.8-1: LTS (same as the Project) because projects facilitated by this alternative could include habitable structures within or adjacent to Earthquake Fault Zones. However, all projects would be constructed in accordance with all applicable state and local laws; Earthquake Fault Zones would be identified during the planning process for any new project and avoided when the location of new habitable structures is decided; and adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects from the presence of a known Earthquake Fault Zone would be less than significant. • Impact 3.8-2: LTS (same as the Project) because although projects facilitated by this alternative could be damaged by strong seismic ground shaking, potential damage to the components (such as solar photovoltaic panels) from seismic events could easily be repaired and would not pose a significant hazard of loss, injury, or death. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. • Impact 3.8-3: LTS (same as the Project) because projects facilitated by this alternative could be subject to the effects of liquefaction and/or lateral spreading should they be proposed in susceptible areas, thereby exposing people and structures to the potentially damaging effects of liquefaction and/or lateral spreading. However, compliance with project-specific geotechnical design recommendations, applicable building code standards, and other federal, state, and local requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. • Impact 3.8-4: LTS (same as the Project) because projects facilitated by this alternative would be subject to the effects of earthquake-induced landslides should they be proposed in susceptible areas and, if so, would expose people and structures to the potentially damaging effects of landslides. However, compliance with project-specific geotechnical design recommendations and all applicable requirements and standards would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. • Impact 3.8-5: LTS (same as the Project) because projects facilitated by this alternative could include large-scale earth-moving activities that could increase the risk of erosion or sediment transport as a result of clearing, excavation, grading, trenching, or soil stockpiling, and implementation of these and other projects facilitated by this alternative (including any developed on steep slopes) could create a significant impact related to erosion or sediment transport, should construction activities go unregulated. However, compliance with independently enforceable laws, regulations, plans, and standards such as Construction General Permit requirements would prevent or substantially reduce erosion during construction of any projects facilitated by this alternative, and therefore, this alternative would not result in substantial soil erosion or loss of topsoil. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.8-1: LTS (same as the Project) because projects facilitated by this alternative could include habitable structures within or adjacent to Earthquake Fault Zones. However, all projects would be constructed in accordance with all applicable state and local laws; Earthquake Fault Zones would be identified during the planning process for any new project and avoided when the location of new habitable structures is decided; and adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects from the presence of a known Earthquake Fault Zone would be less than significant. • Impact 3.8-2: LTS (same as the Project) because although projects facilitated by this alternative could be damaged by strong seismic ground shaking, potential damage to the components (such as photovoltaic panels) from seismic events could easily be repaired and would not pose a significant hazard of loss, injury, or death. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. • Impact 3.8-3: LTS (same as the Project) because projects facilitated by this alternative could be subject to the effects of liquefaction and/or lateral spreading should they be proposed in susceptible areas, thereby exposing people and structures to the potentially damaging effects of liquefaction and/or lateral spreading. However, compliance with project-specific geotechnical design recommendations, applicable building code standards, and other federal, state, and local requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. • Impact 3.8-4: LTS (same as the Project) because projects facilitated by this alternative would be subject to the effects of earthquake-induced landslides should they be proposed in susceptible areas and, if so, would expose people and structures to the potentially damaging effects of landslides. However, compliance with project-specific geotechnical design recommendations and all applicable requirements and standards would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. • Impact 3.8-5: LTS (same as the Project) because projects facilitated by this alternative could include large-scale earth-moving activities that could increase the risk of erosion or sediment transport as a result of clearing, excavation, grading, trenching, or soil stockpiling, and implementation of these and other projects facilitated by this alternative (including any developed on steep slopes) could create a significant impact related to erosion or sediment transport, should construction activities go unregulated. However, compliance with independently enforceable laws, regulations, plans, and standards such as Construction General Permit requirements would prevent or substantially reduce erosion during construction of any projects facilitated by this alternative, and therefore, this alternative would not result in substantial soil erosion or loss of topsoil. | <ul style="list-style-type: none"> • Overall: – (similar to but less than the Project) • Impact 3.8-1: LTS (similar to but less than the Project) because projects facilitated by this alternative could include habitable structures within or adjacent to Earthquake Fault Zones. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. All projects would be constructed in accordance with all applicable state and local laws; Earthquake Fault Zones would be identified during the planning process for any new project and avoided when the location of new habitable structures is decided; and adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects from the presence of a known Earthquake Fault Zone would be less than significant. • Impact 3.8-2: LTS (similar to but less than the Project) because although projects facilitated by this alternative could be damaged by strong seismic ground shaking, potential damage to the components (such as photovoltaic panels) from seismic events could easily be repaired and would not pose a significant hazard of loss, injury, or death. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. • Impact 3.8-3: LTS (similar to but less than the Project) because projects facilitated by this alternative could be subject to the effects of liquefaction and/or lateral spreading should they be proposed in susceptible areas, thereby exposing people and structures to the potentially damaging effects of liquefaction and/or lateral spreading. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Compliance with project-specific geotechnical design recommendations, applicable building code standards, and other federal, state, and local requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. • Impact 3.8-4: LTS (similar to but less than the Project) because projects facilitated by this alternative would be subject to the effects of earthquake-induced landslides should they be proposed in susceptible areas and, if so, would expose people and structures to the potentially damaging effects of landslides. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Compliance with project-specific geotechnical design recommendations and all applicable requirements and standards would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------------------------|---------------------------------|---------|------------------------|---|---|---|
| <p>3.8 (cont.)</p> | <p>Geology and Soils</p> | | | <ul style="list-style-type: none"> Impact 3.8-6: LTS (same as the Project) because projects facilitated by this alternative could involve dewatering, which could exacerbate land subsidence in the region; however, compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence. Impact 3.8-7: LTS (same as the Project) because projects facilitated by this alternative could be constructed on expansive soils, and thus could create a substantial risk to life or property if not properly regulated; however, compliance with state and local laws governing new development in the unincorporated County would ensure that impacts related to expansive soils would be less than significant. Impact 3.8-8: LTS (same as the Project) because projects facilitated by this alternative could generate wastewater and include septic tanks or alternative wastewater disposal systems; however, compliance with state and local requirements would ensure that impacts related to adequate soils for supporting such systems would be less than significant. Impact 3.8-9: LTS (same as the Project) because projects facilitated by this alternative could be proposed in designated Hillside Management Areas; however, these projects would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project-specific basis, which would assure that new projects facilitated by this alternative would not result in a significant impact. Impact 3.8-10: LTS (same as the Project) because cumulative impacts related to geology and soils would result from projects in the County that would combine with projects facilitated by this alternative to create geologic hazards, including unstable geologic conditions, or contribute substantially to erosion; however, cumulative development under this alternative and the surrounding area would be subject to the same local, state, and federal regulations pertaining to geology and soils, including the CBC and County Building Code requirements (or city building code requirements, as appropriate). Therefore, this alternative, in combination with other cumulative projects, would not contribute to a significant cumulative impact. | <ul style="list-style-type: none"> Impact 3.8-6: LTS (same as the Project) because projects facilitated by this alternative could involve dewatering, which could exacerbate land subsidence in the region; however, compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence. Impact 3.8-7: LTS (same as the Project) because projects facilitated by this alternative could be constructed on expansive soils, and thus could create a substantial risk to life or property if not properly regulated; however, compliance with state and local laws governing new development in the unincorporated County would ensure that impacts related to expansive soils would be less than significant. Impact 3.8-8: LTS (same as the Project) because projects facilitated by this alternative could generate wastewater and include septic tanks or alternative wastewater disposal systems; however, compliance with state and local requirements would ensure that impacts related to adequate soils for supporting such systems would be less than significant. Impact 3.8-9: LTS (same as the Project) because projects facilitated by this alternative could be proposed in designated Hillside Management Areas; however, these projects would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project-specific basis, which would assure that new projects facilitated by this alternative would not result in a significant impact. Impact 3.8-10: LTS (same as the Project) because cumulative impacts related to geology and soils would result from projects in the County that would combine with projects facilitated by this alternative to create geologic hazards, including unstable geologic conditions, or contribute substantially to erosion; however, cumulative development under this alternative and the surrounding area would be subject to the same local, state, and federal regulations pertaining to geology and soils, including the CBC and County Building Code requirements (or city building code requirements, as appropriate). Therefore, this alternative, in combination with other cumulative projects, would not contribute to a significant cumulative impact. | <ul style="list-style-type: none"> Impact 3.8-5: LTS (similar to but less than the Project) because projects facilitated by this alternative could include large-scale earth-moving activities that could increase the risk of erosion or sediment transport as a result of clearing, excavation, grading, trenching, or soil stockpiling, and implementation of these and other projects facilitated by this alternative (including any developed on steep slopes) could create a significant impact related to erosion or sediment transport, should construction activities go unregulated. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Compliance with independently enforceable laws, regulations, plans, and standards such as Construction General Permit requirements would prevent or substantially reduce erosion during construction of any projects facilitated by this alternative, and therefore, this alternative would not result in substantial soil erosion or loss of topsoil. Impact 3.8-6: LTS (similar to but less than the Project) because projects facilitated by this alternative could involve dewatering, which could exacerbate land subsidence in the region; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects facilitated by this alternative would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence. Impact 3.8-7: LTS (similar to but less than the Project) because projects facilitated by this alternative could be constructed on expansive soils, and thus could create a substantial risk to life or property if not properly regulated; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Compliance with state and local laws governing new development in the unincorporated County would ensure that impacts related to expansive soils would be less than significant. Impact 3.8-8: LTS (similar to but less than the Project) because projects facilitated by this alternative could generate wastewater and include septic tanks or alternative wastewater disposal systems; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Compliance with state and local requirements would ensure that impacts related to adequate soils for supporting such systems would be less than significant. Impact 3.8-9: LTS (similar to but less than the Project) because projects facilitated by this alternative could be proposed in designated Hillside Management Areas; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. These projects would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project-specific basis, which would assure that new projects facilitated by this alternative would not result in a significant impact. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|---------------------------------|--|--|--|--|---|
| 3.8 (cont.) | Geology and Soils | | | | | <ul style="list-style-type: none"> Impact 3.8-10: LTS (similar to but less than the Project) because cumulative impacts related to geology and soils would result from projects in the County that would combine with projects facilitated by this alternative to create geologic hazards, including unstable geologic conditions, or contribute substantially to erosion; however, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Cumulative development under this alternative and the surrounding area would be subject to the same local, state, and federal regulations pertaining to geology and soils, including the CBC and County Building Code requirements (or city building code requirements, as appropriate). Therefore, this alternative, in combination with other cumulative projects, would not contribute to a significant cumulative impact. |
| 3.9 | Greenhouse Gas Emissions | <p>Impact 3.9-1: LTS (beneficial effect). The Project would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts.</p> <p>Impact 3.9-2: LTS (beneficial effect). The Draft 2045 CAP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2022 Scoping Plan, SB 32, AB 1279, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and Los Angeles County Green Building Ordinance and instead would facilitate projects in furtherance of such plans, policies, and regulations.</p> | <ul style="list-style-type: none"> Overall: + (greater than the Project) Impact 3.9-1: LTS (similar to but greater than the Project) because it would not result in any new GHG emissions; however, it would result in a greater impact because it would not reduce Countywide GHG emissions beyond the adjusted BAU scenario, while the Project would substantially reduce Countywide GHG emissions beyond the adjusted BAU scenario. Specifically, it would result in GHG emission reductions compared to the 2015 baseline of 1.1 million MTCO₂e by 2030, 1.3 million MTCO₂e by 2035, and 1.7 million MTCO₂e by 2045, equal to the adjusted BAU scenario, while the Project would result in GHG emission reductions compared to the 2015 baseline of 2.6 million MTCO₂e by 2030, 3.3 million MTCO₂e by 2035, and 4.6 million MTCO₂e by 2030. Impact 3.9-2: SUM (greater than the Project) because it would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2022 Scoping Plan, SB 32, AB 1279, and the OurCounty Sustainability Plan. This is because this alternative would not reduce Countywide GHG emissions consistent with the goals and targets of these plans. | <ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.9-1: LTS (similar to but less than the Project) because it would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts; however, it would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through the purchase and retirement of carbon offsets. Impact 3.9-2: LTS (similar to but less than the Project) because it would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2022 Scoping Plan, SB 32, AB 1279, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and Los Angeles County Green Building Ordinance. However, Alternative 1 would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through the purchase and retirement of carbon offsets, which would further the aims of the CARB 2022 Scoping Plan, SB 32, AB 1279, and the OurCounty Sustainability Plan. | <ul style="list-style-type: none"> Overall: – (similar to but less than the Project) Impact 3.9-1: LTS (similar to but less than the Project) because it would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts. However, this alternative would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through reduced energy use via the operation of ZNE buildings. Impact 3.9-2: LTS (similar to but less than the Project) because it would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2022 Scoping Plan, SB 32, AB 1279, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and Los Angeles County Green Building Ordinance. However, Alternative 2 would result in a reduced impact because it would likely reduce Countywide GHG emissions more than the Project through reduced energy use via the operation of ZNE buildings, which would further the aims of the CARB 2022 Scoping Plan, SB 32, AB 1279, and the OurCounty Sustainability Plan. | <ul style="list-style-type: none"> Overall: + (greater than the Project) Impact 3.9-1: LTS (similar to but greater than the Project) because it would result in an overall decrease in GHG emissions Countywide compared to both the 2015 baseline and the BAU forecasts. However, this alternative would result in a greater impact because it would not reduce Countywide GHG emissions as much as the Project through 2030 and 2035, given Alternative 3's reduced GHG emissions reduction targets for these two years. Specifically, Alternative 3 would result in minimum GHG emissions reductions compared to the 2015 baseline of 1.7 million MTCO₂e by 2030 and 2035, while the Project would result in GHG emissions reductions compared to the 2015 baseline of 2.6 million MTCO₂e by 2030 and 3.3 million MTCO₂e by 2035. Impact 3.9-2: SUM (similar to but greater than the Project) because it would likely not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2022 Scoping Plan, SB 32, AB 1279, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and the Los Angeles County Green Building Ordinance. However, Alternative 3 would result in an increased impact because it would not reduce Countywide GHG emissions as much as the Project, given that fewer GHG emissions reductions would be needed to achieve the lower targets. |
| 3.10 | Hazards and Hazardous Materials | <p>Impact 3.10-1: LTS. The Project would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials because compliance with federal, state, and local laws regulating the transportation, handling, storage, and disposal of hazardous materials (including as set forth in the Health and Safety Code and related regulations) would assure that impacts would be less than significant.</p> <p>Impact 3.10-2: LTS. The Project, as a result of solar PV projects facilitated by the Draft 2045 CAP, could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of a toxic metal into the environment if cadmium telluride (CdTe) is used in solar modules and the modules were to release the CdTe in the event of PV panel damage or breakage. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant.</p> | <ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.10-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Impact 3.10-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Impact 3.10-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. | <ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.10-1: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 1. The additional carbon offset projects included in Alternative 1 could involve the creation of a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Carbon sequestration projects, water efficiency improvement projects, methane capture, and gas replacement projects facilitated by Alternative 1 all would have little to no risk of release, although investment in solar or wind projects could result in comparable risk to projects facilitated by the Project. Requisite compliance with federal, state, and local laws regulating the transportation, handling, storage, and disposal of hazardous materials would assure that impacts would be less than significant. | <ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.10-1: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2 would include implementation of additional energy efficiency measures such as air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. These additional measures (as part of Alternative 2) would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Compliance with federal, state, and local laws regulating the transportation, handling, storage, and disposal of hazardous materials (including as set forth in the Health and Safety Code and related regulations) would assure that impacts would be less than significant. | <ul style="list-style-type: none"> Overall: = (similar to but less than the Project) Impact 3.10-1: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project, because it would involve fewer projects through 2030 and 2035 that could create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Compliance with federal, state, and local laws regulating the transportation, handling, storage, and disposal of hazardous materials (including as set forth in the Health and Safety Code and related regulations) would assure that impacts would be less than significant. |

TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|---------------------|--|--|--|--|--|---|
| 3.10 (cont.) | Hazards and Hazardous Materials | <p>Impact 3.10-3: LTSM. The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses if a solar PV project facilitated by the Draft 2045 CAP were to be built within 0.25 mile of a sensitive land use and if PV solar panels containing CdTe were to be ground up or vaporized in a fire. Compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant.</p> <p>Impact 3.10-4: LTS. Projects facilitated by the Draft 2045 CAP may be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but as a result of compliance with federal, state, and local laws, would not create a significant hazard to the public or the environment.</p> <p>Impact 3.10-5: LTS. The Project would not, for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Project area. Compliance with FAA requirements and the provisions governing projects proposed in a safety or noise hazard zone delineated in the County ALUP would assure that the impact would be less than significant.</p> <p>Impact 3.10-6: LTSM. With implementation of Mitigation Measure 3.15-1, the Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because the 2019 County of Los Angeles All-Hazards Mitigation Plan does not include specific evacuation routes, and because a project-specific traffic control plan would be required if construction activities within major roadways as a result of projects facilitated by the Draft 2045 CAP could obstruct major roadways and thereby hinder evacuation procedures. Adherence with the provisions of such a plan, as required by Mitigation Measure 3.15-1, would reduce the impact to less than significant.</p> <p>Impact 3.10-7: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to significant cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials.</p> <p>Impact 3.10-8: LTSM. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, with the implementation of mitigation, would not cause a cumulatively considerable contribution to a significant cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant.</p> <p>Impact 3.10-9: LTSM. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant.</p> | <ul style="list-style-type: none"> Impact 3.10-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. Impact 3.10-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, and thus would not result in a safety hazard or excessive noise for people residing or working in the Project area. Impact 3.10-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Impact 3.10-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact involving hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Impact 3.10-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact regarding hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Impact 3.10-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Impact 3.10-10: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impact 3.10-11: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area. Impact 3.10-12: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan. | <ul style="list-style-type: none"> Impact 3.10-2: LTSM (same as the Project) because solar PV projects using CdTe panels could be facilitated by the Draft 2045 CAP or by Alternative 1. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-3: LTSM (same as the Project) because solar PV projects using CdTe panels could be facilitated by the Draft 2045 CAP or by Alternative 1. Compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-4: LTS (same as the Project) because projects facilitated by Alternative 1 would not likely be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and because, if they were, compliance with federal, state, and local laws would assure that they would not create a significant hazard to the public or the environment. Impact 3.10-5: LTS (similar to but greater than the Project) because projects facilitated by Alternative 1 could include wind projects built in the region, for which the turbines could result in a safety hazard for people residing or working in the project area; however, requisite compliance with FAA requirements and provisions governing projects proposed in a safety or noise hazard zone, as delineated in an applicable ALUP, would assure that the impact would be less than significant. Impact 3.10-6: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 1. The additional offset projects facilitated by Alternative 1 could impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; however, a project-specific traffic control plan would be required if construction activities within major roadways could obstruct vehicle passage and thereby hinder evacuation procedures. Adherence to the provisions of such a plan, as required by Mitigation Measure 3.15-1, would reduce the impact to less than significant. Impact 3.10-7: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 1. The additional offset projects facilitated by Alternative 1 would not make a cumulatively considerable contribution to significant cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Impact 3.10-8: LTSM (same as the Project) because projects facilitated by Alternative 1, with the implementation of mitigation, would not make a cumulatively considerable contribution to a substantial cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. | <ul style="list-style-type: none"> Impact 3.10-2: LTSM (same as than the Project) the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Rooftop solar installed pursuant to Alternative 2 for on-site generation of renewable energy could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of a toxic metal into the environment if CdTe were used in solar modules and the modules were to release the CdTe in the event of PV panel damage or breakage. The implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-3: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Projects facilitated by Alternative 2 could include the installation of solar PV panels containing CdTe on rooftops within 0.25 mile of a sensitive land use. However, given the number of ways Alternative 2 could be achieved, it is more likely that projects facilitated by Alternative 2 would not be pursued if they could result in a risk to sensitive land uses. Further, compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-4: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements facilitated by Alternative 2 would increase the likelihood of locating new buildings on sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, if one or more new buildings were to be so located, requisite compliance with federal, state, and local laws would assure that no significant hazard to the public or the environment would result. Impact 3.10-5: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements facilitated by Alternative 2 would not increase the likelihood of locating new buildings or other structures so as to result in a safety hazard or excessive noise for people residing or working in the area. However, should a project be so located, requisite compliance with FAA and ALUP requirements would assure that the impact would be less than significant. Impact 3.10-6: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements installed as facilitated by Alternative 2 would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Implementation of Mitigation Measure 3.15-1 would not be required. Impact 3.10-7: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. The additional design elements installed as facilitated by Alternative 2 would not make a cumulatively considerable contribution to significant cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. | <ul style="list-style-type: none"> Impact 3.10-2: LTSM (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project, because it would involve fewer projects through 2030 and 2035 that could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of a toxic metal into the environment. The implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-3: LTSM (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-4: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Compliance with federal, state, and local laws in combination with implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-5: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could include wind projects built in the region, for which the turbines could result in a safety hazard for people residing or working in the project area. However, requisite compliance with FAA requirements and provisions governing projects proposed in a safety or noise hazard zone, as delineated in an applicable ALUP, would assure that the impact would be less than significant. Impact 3.10-6: LTSM (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. A project-specific traffic control plan would be required if construction activities within major roadways could obstruct vehicle passage and thereby hinder evacuation procedures. Adherence to the provisions of such a plan, as required by Mitigation Measure 3.15-1, would reduce the impact to less than significant. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|----------------------------|---|---|------------------------|--|---|---|
| <p>3.10 (cont.)</p> | <p>Hazards and Hazardous Materials</p> | <p>Impact 3.10-10: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not make a cumulatively considerable contribution to a significant cumulative impact related to facilitated projects being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not cause or contribute to a significant cumulative hazard to the public or the environment.</p> <p>Impact 3.10-11: LTS. The Draft 2045 CAP would not make a cumulatively considerable contribution to a significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area.</p> <p>Impact 3.10-12: LTS. With implementation of a traffic control plan as required by Mitigation Measure 3.15-1, the Draft 2045 CAP would not make a cumulatively considerable contribution to a significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan.</p> | | <ul style="list-style-type: none"> Impact 3.10-9: LTS (same as the Project) because projects facilitated by Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-10: LTS (same as the Project) because projects facilitated by Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not cause or contribute to a significant cumulative hazard to the public or the environment. Impact 3.10-11: LTS (similar to but greater than the Project) because Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area. Impact 3.10-12: LTS (same as the Project) because, with implementation of a traffic control plan as required by Mitigation Measure 3.15-1, Alternative 1 would not make a cumulatively considerable contribution to a significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan. | <ul style="list-style-type: none"> Impact 3.10-8: LTS (same as the Project) because Alternative 2, with the implementation of mitigation, would not make a cumulatively considerable contribution to a substantial cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. Compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-9: LTS (same as the Project) because projects facilitated by Alternative 2 would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-10: LTS (same as the Project) because Alternative 2 would not make a cumulatively considerable contribution to a significant cumulative impact related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impact 3.10-11: LTS (same as the Project) because Alternative 2 would not make a cumulatively considerable contribution to a significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area. Impact 3.10-12: LTS (same as the Project) because Alternative 2 would not make a cumulatively considerable contribution to a significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan. Implementation of Mitigation Measure 3.15-1 would not be required. | <ul style="list-style-type: none"> Impact 3.10-7: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 and would not make a cumulatively considerable contribution to significant cumulative hazards to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Impact 3.10-8: LTS (similar to but less than the Project) because projects facilitated by Alternative 3 with the implementation of mitigation would not make a cumulatively considerable contribution to a substantial cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Compliance with federal, state, and local laws would reduce this impact, and implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-9: LTS (similar to but less than the Project) because projects facilitated by Alternative 3 would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.10-10: LTS (similar to but less than the Project) because projects facilitated by Alternative 3 would not make a cumulatively considerable contribution to a significant cumulative impact related to being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not cause or contribute to a significant cumulative hazard to the public or the environment. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Impact 3.10-11: LTS (similar to but less than the Project) because Alternative 3 would not make a cumulatively considerable contribution to a significant cumulative impact related to safety hazards or excessive noise for people residing or working in the project area. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. Impact 3.10-12: LTS (similar to but less than the Project) because, with implementation of a traffic control plan as required by Mitigation Measure 3.15-1, Alternative 3 would not make a cumulatively considerable contribution to a significant cumulative impact related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. |

TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|-----------------------------|--|--|---|--|---|
| 3.11 | Hydrology and Water Quality | <p>Impact 3.11-1: LTS. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, because requisite compliance with federal, state and local laws (including the Construction General Permit, Green Building Code, and Los Angeles County Municipal Separate Storm Water System [MS4] Permit and low impact development [LID] requirements) would assure that the impact would be less than significant.</p> <p>Impact 3.11-2: LTS. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin because, on the contrary, some projects facilitated by the Project would have a beneficial effect on groundwater supplies and because the County has numerous regulations in place, including the LID ordinance, requiring that facilities be designed to facilitate on-site infiltration. Although renewable energy and other projects facilitated by the Draft 2045 CAP could have a modest impact on water demand, the population that would potentially use groundwater supplies would not exceed forecasts and the demand would be low, within safe yield, or more likely met by a source other than groundwater.</p> <p>Impact 3.11-3: LTS. The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding. Requisite compliance with federal, state, and local requirements would assure that the impact would be less than significant.</p> <p>Impact 3.11-4: LTS. The Project would not otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements.</p> <p>Impact 3.11-5: LTSM. The Project could, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation because compliance with federal, state, and local requirements, in addition to Mitigation Measure 3.10-2, which would ensure that hazardous waste is properly stored, would reduce the impact to less than significant.</p> <p>Impact 3.11-6: LTS. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan because the impacts of projects facilitated by the Draft 2045 CAP already have been analyzed pursuant to and would be consistent with the General Plan land use assumptions (including the Housing Element) and SCAG's Connect SoCal projections. Further, any future projects would be subject to the independently enforceable requirements of the of the basin plan and the SGMA.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.11-1: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. • Impact 3.11-2: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. • Impact 3.11-3: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would substantially alter the existing drainage pattern of the site or area in any of the specified ways. • Impact 3.11-4: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas, so as to require additional flood proofing and flood insurance. • Impact 3.11-5: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would, in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation. • Impact 3.11-6: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.11-1: LTS (same as the Project) because projects facilitated by Alternative 1, including projects facilitated by Alternative 1's carbon offset purchases, would be required to comply with federal, state and local laws (including the Construction General Permit, Green Building Code, and Los Angeles County MS4 Permit and LID requirements), which would assure that the impact would be less than significant. Further, projects to increase or protect carbon sequestration, improve water efficiency, capture methane at animal farms or landfills, and replace high global warming potential (GWP) gas use with a gas that has a lower GWP would be less likely to have a direct impact on water quality standards, waste discharge requirements, or surface or groundwater quality because they would tend to reduce water demand or increase ground surface impermeability. • Impact 3.11-2: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the alternative would impede sustainable groundwater management of the basin. Projects to increase or protect carbon sequestration, improve water efficiency, capture methane at animal farms or landfills, and replace high-GWP gas use with a gas that has a lower GWP would be less likely to increase ground surface impermeability. • Impact 3.11-3: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would be among the types of projects that would be less likely to substantially alter the existing drainage pattern of the site or area. In any event, requisite compliance with federal, state, and local requirements would ensure that the impact would be less than significant. • Impact 3.11-4: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas. • Impact 3.11-5: LTSM (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases could risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone because compliance with federal, state, and local requirements, together with implementation of Mitigation Measure 3.10-2, would reduce the impact to less than significant. • Impact 3.11-6: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, because consistency with independently applicable requirements would assure that the impact would be less than significant. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.11-1: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building design elements to reduce energy demand would include high-performance building envelopes, air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. Only the energy needs remaining after the implementation of these types of design elements would need to be satisfied by on-site renewable energy generation and storage. This prioritization would reduce water demand and new construction that could affect surface or groundwater quality. Requisite compliance with federal, state, and local laws would assure that the impact would be less than significant. • Impact 3.11-2: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the alternative would impede sustainable groundwater management of the basin. Energy demand reduction measures would not significantly increase ground surface impermeability. • Impact 3.11-3: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not substantially alter the existing drainage pattern of the site or area because projects facilitated by Alternative 2 would focus primarily on existing building envelopes. In any event, requisite compliance with federal, state, and local requirements would assure that the impact would be less than significant. • Impact 3.11-4: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas. Work would occur primarily in existing building envelopes, and any remaining renewable energy projects facilitated by Alternative 2 to close the gap would have a less-than-significant impact for the same reasons as renewable energy projects facilitated by the Draft 2045 CAP. • Impact 3.11-5: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures could risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone because compliance with federal, state, and local requirements, together with implementation of Mitigation Measure 3.10-2, would reduce the impact to less than significant. • Impact 3.11-6: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2's building energy efficiency measures would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Consistency with independently applicable requirements would assure that the impact would be less than significant. | <ul style="list-style-type: none"> • Overall: – (similar to but less than the Project) • Impact 3.11-1: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Requisite compliance with federal, state, and local laws would assure that the impact would be less than significant. • Impact 3.11-2: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. • Impact 3.11-3: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could substantially alter the existing drainage pattern of the site or area in any of the specified ways. In any event, requisite compliance with federal, state, and local requirements would assure that the impact would be less than significant. • Impact 3.11-4: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could place structures in federal 100-year flood hazard or County Capital Flood floodplain areas, so as to require additional floodproofing and flood insurance. In any event, requisite compliance with federal, state, and local requirements would ensure that the impact would be less than significant. • Impact 3.11-5: LTSM (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could, in a flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation. However, compliance with federal, state, and local requirements, together with implementation of Mitigation Measure 3.10-2, would reduce the impact to less than significant. • Impact 3.11-6: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Consistency with independently applicable requirements would assure that the impact would be less than significant. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|----------------------------|---|---|---|---|--|---|
| <p>3.11 (cont.)</p> | <p>Hydrology and Water Quality</p> | <p>Impact 3.11-7: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.</p> <p>Impact 3.11-8: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative decreases in groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede the sustainable groundwater management of the basin.</p> <p>Impact 3.11-9: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative alterations to the existing drainage pattern of the site or area.</p> <p>Impact 3.11-10: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative placement of structures in Federal 100-year flood hazard or County Capital Flood floodplain areas, which would require additional flood proofing and flood insurance requirements.</p> <p>Impact 3.11-11: LTSM. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant.</p> <p>Impact 3.11-12: LTS. The Draft 2045 CAP, as a result of projects facilitated by Draft 2045 CAP measures and actions, would not contribute to cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.</p> | <ul style="list-style-type: none"> Impact 3.11-7: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to cumulative violations of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impact 3.11-8: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative decrease in groundwater supplies, or substantially interfere with groundwater recharge such that they may impede sustainable groundwater management of the basin. Impact 3.11-9: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative alterations to the existing drainage pattern of the site or area. Impact 3.11-10: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to the placement of structures in Federal 100-year flood hazard or County Capital Flood floodplain areas. Impact 3.11-11: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to a risk of releasing pollutants due to a project inundation condition in a flood hazard, tsunami, or seiche zone. Impact 3.11-12: No impact (less than the Project) because the No Project Alternative would not facilitate projects that would cause or contribute to any significant cumulative impact related to a conflict with or obstruction of implementation of a water quality control plan or sustainable groundwater management plan. | <ul style="list-style-type: none"> Impact 3.11-7: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impact 3.11-8: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative decrease in groundwater supplies or substantial interference with groundwater recharge such that Alternative 1 could impede sustainable groundwater management of the basin. Impact 3.11-9: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative alterations to the existing drainage pattern of the site or area. Impact 3.11-10: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative placement of structures in Federal 100-year flood hazard or County Capital Flood floodplain areas that would require additional flood proofing and flood insurance requirements. Impact 3.11-11: LTSM (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.11-12: LTS (similar to but less than the Project) because projects facilitated by Alternative 1's carbon offset purchases would not cause or contribute to any significant cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | <ul style="list-style-type: none"> Impact 3.11-7: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impact 3.11-8: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative decrease in groundwater supplies or substantial interference with groundwater recharge such that Alternative 2 could impede sustainable groundwater management of the basin. Impact 3.11-9: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative alterations to the existing drainage pattern of the site or area. Impact 3.11-10: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative placement structures in Federal 100-year flood hazard or County Capital Flood floodplain areas that would require additional flood proofing and flood insurance requirements. Impact 3.11-11: LTSM (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.11-12: LTS (same as the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 2. Alternative 2, including its building energy efficiency measures, would not cause or contribute to any significant cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | <ul style="list-style-type: none"> Impact 3.11-7: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project, because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impact 3.11-8: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project, because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative decrease in groundwater supplies or substantial interference with groundwater recharge such that Alternative 3 could impede sustainable groundwater management of the basin. Impact 3.11-9: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative alterations to the existing drainage pattern of the site or area. Impact 3.11-10: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative placement structures in federal 100-year flood hazard or County Capital Flood floodplain areas that would require additional floodproofing and flood insurance requirements. Impact 3.11-11: LTSM (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation. Implementation of Mitigation Measure 3.10-2 would reduce the impact to less than significant. Impact 3.11-12: LTS (similar to but less than the Project) because the same projects that could be facilitated by the Draft 2045 CAP could be facilitated by Alternative 3. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to any significant cumulative conflicts with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. |

TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|-----------------------|--|--|--|---|---|
| 3.12 | Land Use and Planning | <p>Impact 3.12-1: LTS. The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact because the Draft 2045 CAP furthers the vision and goals of the OurCounty Sustainability Plan, would implement the GHG emissions reduction strategies of the Air Quality Element of the General Plan (as proposed for revision by the Project), and would be consistent with SCAG's 2045 RTP/SCS.</p> <p>Impact 3.12-2: LTS. The Project would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact because there is no existing significant cumulative impact in this regard, and the Project's incremental less-than-significant contribution, in combination with the incremental impacts of other cumulative projects, would not cause one.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.12-1: No impact (less than the Project) because the No Project Alternative would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. • Impact 3.12-2: No impact (less than the Project) because the No Project Alternative would not cause or contribute to a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.12-1: LTS (same as the Project) because projects facilitated by Alternative 1 would need to consistent with the General Plan and other land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact. • Impact 3.12-2: LTS (same as the Project) because Alternative 1's less-than-significant incremental contribution to cumulative land use and planning impacts would not cause or contribute to any significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.12-1: LTS (same as the Project) because projects facilitated by Alternative 2 would need to consistent with the General Plan and other land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact. • Impact 3.12-2: LTS (same as the Project) because Alternative 2's less-than-significant incremental contribution to cumulative land use and planning impacts would not cause or contribute to any significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. | <ul style="list-style-type: none"> • Overall: – (similar to but less than the Project) • Impact 3.12-1: LTS (similar to but less than the Project) because projects facilitated by Alternative 3 would need to be consistent with the General Plan and other land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. • Impact 3.12-2: LTS (similar to but less than the Project) because Alternative 3's less-than-significant incremental contribution to cumulative land use and planning impacts would not cause or contribute to any significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035. |
| 3.13 | Noise | <p>Impact 3.13-1: SU. Projects facilitated by the Draft 2045 CAP would result in short-term construction noise that could exceed noise levels in excess of standards and would create new stationary noise sources that could exceed noise levels in excess of standards; Mitigation Measure 3.13-1 and 3.13-2 would reduce these impacts, but not necessarily to less-than-significant levels. The Draft 2045 CAP would likely not create any new roadway traffic that could exceed noise levels in excess of standards.</p> <p>Impact 3.13-2: SU. Projects facilitated by the Draft 2045 CAP would result in construction groundborne vibration and groundborne noise levels that could exceed standards; Mitigation Measure 3.13-3 would reduce this impact, but not necessarily to less-than-significant levels. This alternative would likely not result in any groundborne vibration from roadway traffic or stationary mechanical equipment.</p> <p>Impact 3.13-3: SU. Projects facilitated by the Draft 2045 CAP would combine with noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measures 3.13-1 and 3.13-2 would reduce this impact, but not necessarily to less-than-significant levels.</p> <p>Impact 3.13-4: SU. Projects facilitated by the Draft 2045 CAP would combine with groundborne vibration and groundborne noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measure 3.13-3 and 3.13-4 would reduce this impact, but not necessarily to less-than-significant levels.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.13-1: No impact (less than the Project) because the No Project Alternative would not result in any short-term construction noise that could exceed noise levels in excess of standards; would not increase traffic volumes on local roadways, and therefore would not result in a 3 dBA increase in roadway noise levels; and would not create any new stationary noise sources that could exceed noise levels in excess of standards. • Impact 3.13-2: No impact (less than the Project) because the No Project Alternative would not result in any construction groundborne vibration and groundborne noise levels in excess of standards and would not result in any groundborne vibration operations. • Impact 3.13-3: No impact (less than the Project) because the No Project Alternative would not result in any new construction or operational noise that would combine with noise from nearby projects. • Impact 3.13-4: No impact (less than the Project) because the No Project Alternative would not result in any new construction or operational groundborne vibration and groundborne noise that would combine with groundborne vibration and groundborne noise from nearby projects. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.13-1: SU (same as the Project) because projects facilitated by Alternative 1 would result in short-term construction noise that could exceed noise levels in excess of standards and would create new stationary noise sources that could exceed noise levels in excess of standards; Mitigation Measure 3.13-1 and 3.13-2 would reduce these impacts, but not necessarily to less-than-significant levels. Alternative 1 would likely not create any new roadway traffic that could exceed noise levels in excess of standards. • Impact 3.13-2: SU (same as the Project) because projects facilitated by Alternative 1 would result in construction groundborne vibration and groundborne noise levels that could exceed standards; Mitigation Measure 3.13-3 would reduce this impact, but not necessarily to less-than-significant levels. Alternative 1 would likely not result in any groundborne vibration from roadway traffic or stationary mechanical equipment. • Impact 3.13-3: SU (same as the Project) because projects facilitated by Alternative 1 would combine with noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measures 3.13-1 and 3.13-2 would reduce the contribution of Alternative 1 to the cumulative impact, but not necessarily to less-than-significant levels. • Impact 3.13-4: SU (same as the Project) because projects facilitated by Alternative 1 would combine with groundborne vibration and groundborne noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. Mitigation Measures 3.13-3 and 3.13-4 would reduce this impact, but not necessarily to less-than-significant levels. | <ul style="list-style-type: none"> • Overall: + (similar to but greater than the Project) • Impact 3.13-1: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would result in short-term construction noise that could exceed noise levels in excess of standards and would create new stationary noise sources that could exceed noise levels in excess of standards. However, this alternative would likely result in a greater noise impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measures 3.13-1 and 3.13-2 would reduce these impacts, but not necessarily to less-than-significant levels. • Impact 3.13-2: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would result in construction-related groundborne vibration and groundborne noise levels that could exceed standards. Such projects would likely not result in any groundborne vibration from roadway traffic or stationary mechanical equipment. However, this alternative would likely result in a groundborne vibration impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measure 3.13-3 would reduce this impact, but not necessarily to less-than-significant levels. • Impact 3.13-3: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would combine with noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. However, this alternative would likely result in a greater noise impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measures 3.13-1 and 3.13-2 would reduce this impact, but not necessarily to less-than-significant levels. • Impact 3.13-4: SU (similar to but greater than the Project) because projects facilitated by Alternative 2 would combine with groundborne vibration and groundborne noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. However, this alternative would likely result in a groundborne vibration impact associated with construction because it would involve additional construction for ZNE buildings. Mitigation Measures 3.13-3 and 3.13-4 would reduce this impact, but not necessarily to less-than-significant levels. | <ul style="list-style-type: none"> • Overall: – (similar to but less than the Project) • Impact 3.13-1: SU (similar to but less than the Project) because projects facilitated by Alternative 3 would result in short-term construction noise that could exceed noise levels in excess of standards and would create new stationary noise sources that could exceed noise levels in excess of standards. Alternative 3 would likely not create any new roadway traffic that could exceed noise levels in excess of standards. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in short-term construction noise. Mitigation Measures 3.13-1 and 3.13-2 would reduce these impacts, but not necessarily to less-than-significant levels. • Impact 3.13-2: SU (similar to but less than the Project) because projects facilitated by Alternative 3 would result in construction groundborne vibration and groundborne noise levels that could exceed standards. Alternative 3 would likely not result in any groundborne vibration from roadway traffic or stationary mechanical equipment. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could result in construction groundborne vibration and groundborne noise. Mitigation Measure 3.13-3 would reduce this impact, but not necessarily to less-than-significant levels. • Impact 3.13-3: SU (similar to but less than the Project) because projects facilitated by Alternative 3 would combine with noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could combine with noise from nearby projects. Mitigation Measures 3.13-1 and 3.13-2 would reduce the contribution of Alternative 1 to the cumulative impact, but not necessarily to less-than-significant levels. • Impact 3.13-4: SU (similar to but less than the Project) because projects facilitated by Alternative 3 would combine with groundborne vibration and groundborne noise from nearby projects that could be loud enough to result in a cumulatively considerable contribution. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could combine with groundborne vibration and groundborne noise from nearby projects. Mitigation Measures 3.13-3 and 3.13-4 would reduce this impact, but not necessarily to less-than-significant levels. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|------------------------|---|---|---|--|---|
| 3.14 | Population and Housing | <p>Impact 3.14-1: LTS. The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) because any construction facilitated by the Project would be consistent with levels anticipated in the existing General Plan and zoning.</p> <p>Impact 3.14-2: LTS. The Project would not displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere, because any construction facilitated by the Project would be consistent with levels anticipated in the existing General Plan and zoning.</p> <p>Impact 3.14-3: LTS. The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to the inducement of substantial unplanned population growth in an area, either directly or indirectly.</p> <p>Impact 3.14-4: LTS. The Project would not cause or make a cumulatively considerable contribution to any significant cumulative impact relating to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.14-1: No impact (less than the Project) because the No Project Alternative would not induce population growth. • Impact 3.14-2: No impact (less than the Project) because the No Project Alternative would not displace existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. • Impact 3.14-3: No impact (less than the Project) because the No Project Alternative would not contribute to cumulative conditions relating to unplanned population growth inducement. • Impact 3.14-4: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the displacement of existing people or housing. | <ul style="list-style-type: none"> • Overall: – (same as the Project) • Impact 3.14-1: LTS (same as the Project) because projects facilitated by Alternative 1, including projects facilitated by Alternative 1’s carbon offset purchases, would not directly or indirectly induce substantial unplanned population growth in an area. Any construction facilitated by Alternative 1 would need to be consistent with levels anticipated in the existing General Plan and zoning and could be developed outside the County. • Impact 3.14-2: LTS (same as the Project) because projects facilitated by Alternative 1 would have to be consistent with population levels planned for in the existing General Plan and zoning assumptions, or might be developed outside the County. • Impact 3.14-3: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to the direct or indirect inducement of substantial unplanned population growth in an area. • Impact 3.14-4: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.14-1: LTS (same as the Project) because projects facilitated by Alternative 2 would need to be consistent with levels anticipated in the existing General Plan and zoning and so would not directly or indirectly induce substantial unplanned population growth in an area. • Impact 3.14-2: LTS (same as the Project) because projects facilitated by Alternative 2 would have to be consistent with population levels planned for in the existing General Plan and zoning assumptions. • Impact 3.14-3: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to the direct or indirect inducement of substantial unplanned population growth in an area. • Impact 3.14-4: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or make a cumulatively considerable contribution to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.14-1: LTS (same as the Project) because projects facilitated by Alternative 3 would need to be consistent with levels anticipated in the existing General Plan and zoning and so would not directly or indirectly induce substantial unplanned population growth in an area. • Impact 3.14-2: LTS (same as the Project) because projects facilitated by Alternative 3 would have to be consistent with population levels planned for in the existing General Plan and zoning assumptions. • Impact 3.14-3: LTS (same as the Project) because projects facilitated by Alternative 3 would not cause or make a cumulatively considerable contribution to any significant cumulative impact related to the direct or indirect inducement of substantial unplanned population growth in an area. • Impact 3.14-4: LTS (same as the Project) because projects facilitated by Alternative 3 would not cause or make a cumulatively considerable contribution to displacement of substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere. |
| 3.15 | Transportation | <p>Impact 3.15-1: LTSM. Projects facilitated by the Draft 2045 CAP could conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant.</p> <p>Impact 3.15-2: LTS. The Draft 2045 CAP would support implementation of transportation-related goals, policies, and programs that are already contained in other planning documents, and the implementation of such goals, policies, and programs would reduce Countywide VMT by approximately 4 percent as compared to baseline Countywide VMT, furthering the state’s goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation.</p> <p>Impact 3.15-3: LTSM. Projects facilitated by the Draft 2045 CAP could introduce the construction and increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways. Mitigation Measure 3.15-1 would substantially reduce any potentially hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated projects facilitated by the alternative, reducing this impact to less than significant.</p> <p>Impact 3.15-4: LTSM. Projects facilitated by the Draft 2045 CAP could affect the circulation system to cause or contribute to a significant cumulative impact. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by this alternative, reducing this impact to less than significant.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.15-1: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would conflict with an applicable program plan, ordinance, or policy addressing the circulation system. • Impact 3.15-2: No impact (greater than the Project) because the No Project Alternative would not reduce Countywide VMT, while the Project would reduce Countywide VMT. • Impact 3.15-3: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would introduce any design features or activities that could result in hazardous conditions to motorists, transit operators, bicyclists, or pedestrians. • Impact 3.15-4: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to a conflict with an applicable program plan, ordinance, or policy addressing the circulation system. • Impact 3.15-5: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to VMT. • Impact 3.15-6: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians. | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.15-1: LTSM (same as the Project) because projects facilitated by Alternative 1 could conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. • Impact 3.15-2: LTS (similar to but less than the Project) because projects facilitated by Alternative 1 would result in a net reduction of VMT compared to baseline Countywide VMT, furthering the state’s goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation. However, Alternative 1 could result in a reduced impact because some carbon offset projects with reduced VMT could replace projects otherwise facilitated by the Project. • Impact 3.15-3: LTSM (same as the Project) because projects facilitated by Alternative 1 could introduce construction and increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways. Mitigation Measure 3.15-1 would substantially reduce any potentially hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. • Impact 3.15-4: LTSM (same as the Project) because projects facilitated by Alternative 1 could affect the circulation system to cause or contribute to a significant cumulative impact. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by Alternative 1, reducing this impact to less than significant. | <ul style="list-style-type: none"> • Overall: + (similar to but greater than the Project) • Impact 3.15-1: LTSM (same as the Project) because projects facilitated by Alternative 2 could conflict with an applicable program plan, ordinance, or policy addressing the circulation system. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. • Impact 3.15-2: LTS (same as the Project) because projects facilitated by Alternative 2 would result in a net reduction of VMT compared to baseline Countywide VMT, furthering the state’s goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation. • Impact 3.15-3: LTSM (similar to but greater than the Project) because projects facilitated by Alternative 2 could introduce construction and increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways; however, this alternative would likely result in a greater impact because it would involve additional construction for ZNE buildings. Mitigation Measure 3.15-1 would substantially reduce any potentially hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. • Impact 3.15-4: LTSM (same as the Project) because projects facilitated by Alternative 2 could affect the circulation system to cause or contribute to a significant cumulative impact; Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by Alternative 2, reducing this impact to less than significant. | <ul style="list-style-type: none"> • Overall: = (same as the Project), although a conclusion of either greater than or less than the Project could also be drawn. It is possible that this alternative could have greater impacts than the Project (still LTSM) because it would involve fewer projects through 2030 and 2035 that would reduce VMT, which would not further the state’s goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation as the Project, given that fewer projects would be needed to achieve the lower targets; alternatively, this Alternative would involve the implementation of fewer projects that could conflict with circulation plans, introduce construction, and increase the amount of heavy-duty construction vehicles on roadways, and other related things, which would have less of an impact than the Project. • Impact 3.15-1: LTSM (similar to but less than the Project) because projects facilitated by Alternative 3 could conflict with an applicable program plan, ordinance, or policy addressing the circulation system. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could conflict with circulation plans. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. • Impact 3.15-2: LTS (similar to but greater than the Project) because projects facilitated by Alternative 3 would result in a net reduction of VMT compared to baseline Countywide VMT, furthering the state’s goals to achieve reductions in GHG emissions as they relate to VMT generated by transportation. However, Alternative 3 could result in a greater impact because it would involve fewer projects through 2030 and 2035 that would reduce VMT as compared to the Project. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-----------------|----------------|--|---|---|---|---|
| 3.15 (cont.) | Transportation | <p>Impact 3.15-5: LTS. Projects facilitated by the Draft 2045 CAP, such as Measures T1 through T5, would tend to reduce rather than increase VMT and otherwise present a minimal increase compared to the impacts of other project types. Under this alternative, the implementation of cumulative development projects would have the potential to increase VMT due to additional vehicle trips associated with growth and development in the County.</p> <p>Impact 3.15-6: LTSM. Projects facilitated by the Draft 2045 CAP could create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns, reducing this impact to less than significant.</p> | <ul style="list-style-type: none"> • | <ul style="list-style-type: none"> • Impact 3.15-5: LTS (<i>similar to but less than</i> the Project) because projects facilitated by Alternative 1, such as Measures T1 through T5, would tend to reduce rather than increase VMT and otherwise present a minimal increase compared to the impacts of other project types. Under Alternative 1, the implementation of cumulative projects would have the potential to increase VMT due to additional vehicle trips associated with growth and development in the County. However, Alternative 1 could result in a reduced impact as compared to the Project because some carbon offset projects could be developed in lieu of projects otherwise facilitated by the Project that have reduced VMT relative to the Project. • Impact 3.15-6: LTSM (<i>same as</i> the Project) because projects facilitated by Alternative 1 could create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns, reducing this impact to less than significant. | <ul style="list-style-type: none"> • Impact 3.15-5: LTS (<i>same as</i> the Project) because projects facilitated by Alternative 2, such as Measures T1 through T5, would tend to reduce rather than increase VMT and otherwise present a minimal increase compared to the impacts of other project types. Under Alternative 2, the implementation of cumulative development projects would have the potential to increase VMT due to additional vehicle trips associated with growth and development in the County. • Impact 3.15-6: LTSM (<i>similar to but greater than</i> the Project) because projects facilitated by Alternative 2 could create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities; this alternative would likely result in a greater impact because it would involve additional construction for ZNE buildings. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns, reducing this impact to less than significant. | <ul style="list-style-type: none"> • Impact 3.15-3: LTSM (<i>similar to but less than</i> the Project) because projects facilitated by Alternative 3 could introduce construction and increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could introduce construction vehicles and increase related hazards. Mitigation Measure 3.15-1 would substantially reduce any potentially hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the alternative, reducing this impact to less than significant. • Impact 3.15-4: LTSM (<i>similar to but less than</i> the Project) because projects facilitated by Alternative 1 could affect the circulation system to cause or contribute to a significant cumulative impact. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could affect the circulation system. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by Alternative 3, reducing this impact to less than significant. • Impact 3.15-5: LTS (<i>similar to but greater than</i> the Project) because projects facilitated by Alternative 3, such as Measures T1 through T5, would tend to reduce rather than increase VMT and otherwise present a minimal increase compared to the impacts of other project types. Under Alternative 3, the implementation of cumulative projects would have the potential to increase VMT due to additional vehicle trips associated with growth and development in the County. However, Alternative 3 could result in a greater impact because it would involve fewer projects through 2030 and 2035 that would reduce VMT as compared to the Project. • Impact 3.15-6: LTSM (<i>similar to but less than</i> the Project) because projects facilitated by Alternative 3 could create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could create safety and mobility concerns. Mitigation Measure 3.15-1 would substantially reduce any safety and mobility concerns, reducing this impact to less than significant. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-------------|-------------------------------|---|--|---|--|--|
| 3.16 | Tribal Cultural Resources | <p>Impact 3.16-1: LTSM. With implementation of Mitigation Measure 3.16-1, which would require AB 52 consultation in appropriate circumstances, the Project would cause a less-than-significant impact related to a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). Implementing Mitigation Measure 3.16-1 would ensure that tribal cultural resources are properly identified and addressed pursuant to the later consideration of individual projects facilitated by the Draft 2045 CAP. Mitigation Measures 3.6-2 through 3.6-6 would further reduce this impact.</p> <p>Impact 3.16-2: LTSM. The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would make a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). The Project's significant contribution to this cumulative impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6.</p> | <ul style="list-style-type: none"> • Overall: = (less than the Project) • Impact 3.16-1: No impact (less than the Project) because the No Project Alternative would not facilitate any project that could cause a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). • Impact 3.16-2: No impact (less than the Project) because the No Project Alternative would result in no incremental contribution to any significant impact regarding a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.16-1: LTSM (same as the Project) because with implementation of Mitigation Measure 3.16-1, which would require AB 52 consultation in appropriate circumstances, Alternative 1 would cause a less-than-significant impact related to a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County. Mitigation Measures 3.6-2 through 3.6-6 would further reduce this impact. • Impact 3.16-2: LTSM (same as the Project) because Alternative 1 would make a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County. Alternative 1's significant contribution to this cumulative impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.16-1: LTSM (same as the Project) because with implementation of Mitigation Measure 3.16-1, which would require AB 52 consultation in appropriate circumstances, Alternative 2 would cause a less-than-significant impact related to a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County. Mitigation Measures 3.6-2 through 3.6-6 would further reduce this impact. • Impact 3.16-2: LTSM (same as the Project) because Alternative 2 would make a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County. Alternative 2's significant contribution to this cumulative impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.16-1: LTSM (same as the Project) because with implementation of Mitigation Measure 3.16-1, which would require AB 52 consultation in appropriate circumstances, Alternative 3 would cause a less-than-significant impact related to a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County. Mitigation Measures 3.6-2 through 3.6-6 would further reduce this impact. • Impact 3.16-2: LTSM (same as the Project) because Alternative 3 would make a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County. Alternative 3's significant contribution to this cumulative impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6. |
| 3.17 | Utilities and Service Systems | <p>Impact 3.17-1: SU. The Draft 2045 CAP would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. However, projects facilitated by the Draft 2045 CAP could include ground-mounted, utility-scale solar projects that have been determined in various sections of the Draft EIR to result in significant impacts on environmental resources including air quality, biological resources, cultural resources, water quality, noise, and transportation. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level.</p> <p>Impact 3.17-2: LTS. The Draft 2045 CAP would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years because projects facilitated by the Draft 2045 CAP would substantially reduce municipal, agricultural, industrial, and outdoor landscaping water use.</p> | <ul style="list-style-type: none"> • Overall: – (less than the Project) • Impact 3.17-1: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. • Impact 3.17-2: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would have insufficient water supplies available. | <ul style="list-style-type: none"> • Overall: + (similar to but greater than the Project) • Impact 3.17-1: SU (same as the Project) because projects facilitated by Alternative 1 could require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures in Section 3.17 would reduce this impact, but not to a less-than-significant level. Further, the carbon offset projects that would be facilitated by Alternative 1 could include solar or wind projects, as well as methane capture and energy efficiency projects, that could cause impacts on various resource areas that would be greater than under the Project as proposed. • Impact 3.17-2: LTS (same as the Project) because projects facilitated by Alternative 1 would have sufficient water supplies to serve Alternative 1 and reasonably foreseeable future development during normal, dry, and multiple dry years. Such projects would increase or protect carbon sequestration and/or improve water or energy efficiency and would thereby reduce municipal, agricultural, industrial, and outdoor landscaping water use. | <ul style="list-style-type: none"> • Overall: = (same as the Project) • Impact 3.17-1: SU (same as the Project) because the ZNE building efficiency projects facilitated by Alternative 2 could require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, as a result of new construction or relocation of buildings facilitated by Alternative 2. Implementation of the identified mitigation measures in Section 3.17 would reduce this impact, but not to a less-than-significant level. • Impact 3.17-2: LTS (same as the Project) because projects facilitated by Alternative 2 would have sufficient water supplies to serve Alternative 2 and reasonably foreseeable future development during normal, dry, and multiple dry years. Such projects would improve water efficiency and would thereby reduce municipal, agricultural, industrial, and outdoor landscaping water use. | <ul style="list-style-type: none"> • Overall: – (similar to but less than the Project), although a conclusion of either greater than or less than the Project could also be drawn. It is possible that this alternative could have greater impacts than the Project (still SU), because it would involve fewer projects through 2030 and 2035 that would improve water efficiency and thereby result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers, or encourage the reduction of solid waste, given that fewer projects would be needed to achieve the lower targets. Alternatively, it would involve the implementation of fewer projects that could result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities (and other things), which would have less of an impact than the Project. • Impact 3.17-1: SU (similar to but less than the Project) because projects facilitated by Alternative 3 could require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Implementation of the identified mitigation measures in Section 3.17 would reduce this impact, but not to a less-than-significant level. • Impact 3.17-2: LTS (similar to but less than the Project) because projects facilitated by Alternative 3 would have sufficient water supplies to serve Alternative 3 and reasonably foreseeable future development during normal, dry, and multiple dry years. Such projects would improve water efficiency and would thereby reduce municipal, agricultural, industrial, and outdoor landscaping water use. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. |

TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|--------------|-------------------------------|---|--|--|---|---|
| 3.17 (cont.) | Utilities and Service Systems | <p>Impact 3.17-3: SU. Measures and actions facilitated by the Draft 2045 CAP would lead to increased use of recycled and gray water systems, requiring the development of new water recycling and direct potable reuse facilities. The development of these new facilities would allow for wastewater treatment providers to adequately serve their existing and projected commitments; however, this would lead to significant impacts on air quality, biological resources, cultural resources, water quality, noise, and transportation. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level.</p> <p>Impact 3.17-4: LTS. The Draft 2045 CAP would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals because its measures and actions encourage the reduction of solid waste. The Draft 2045 CAP could facilitate the construction of facilities to meet goals for water recycling, waste diversion, and renewable energy (which facilities could result in waste generated by project construction and operation); however, such projects would be required to comply with applicable federal, state, and local regulations that are designed to minimize the environmental impacts of these facilities.</p> <p>Impact 3.17-5: SU. Projects facilitated by the Draft 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level.</p> <p>Impact 3.17-6: LTS. The Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to insufficient water supplies.</p> <p>Impact 3.17-7:SU. Projects facilitated by the Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to inadequate wastewater treatment capacity. Implementation of mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level.</p> <p>Impact 3.17-8: LTS. The Draft 2045 CAP would not cause or contribute a cumulatively considerable contribution to a significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.</p> | <ul style="list-style-type: none"> Impact 3.17-3: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would result in a determination by the wastewater treatment provider that serves or may serve the area that it has adequate capacity to serve projected demand in addition to the provider's existing commitments. Impact 3.17-4: No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impact 3.17-5: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Impact 3.17-6: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to insufficient water supplies. Impact 3.17-7: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to inadequate wastewater treatment capacity. Impact 3.17-8: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. | <ul style="list-style-type: none"> Impact 3.17-3: LTS (same as the Project) because projects facilitated by Alternative 1 would lead to increased use of recycled and gray water systems, requiring the development of new water recycling and direct potable reuse facilities.. Alternative 1 would improve water efficiency, which could result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers. The impacts of development of other projects facilitated by Alternative 1 would be evaluated on an individual basis once sufficient site-specific, project-specific information becomes known. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. Impact 3.17-4: LTS (similar to but greater than the Project) because projects facilitated by Alternative 1 would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on the purchase of carbon offsets. Requisite consistency with the General Plan and applicable zoning requirements would assure that the impacts of projects facilitated by Alternative 1 would be less than significant; or such projects would be subject to mitigation measures or conditions of approval imposed as part of any project-specific review, to assure that the projects would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impact 3.17-5: SU (same as the Project) because projects facilitated by Alternative 1 would cause or contribute to a significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. Impact 3.17-6: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or contribute to any significant cumulative impact related to insufficient water supplies. Impact 3.17-7: SU (same as the Project) because projects facilitated by Alternative 1 would cause or contribute to any significant cumulative impact related to inadequate wastewater treatment capacity. Implementation of mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. Impact 3.17-8: LTS (same as the Project) because projects facilitated by Alternative 1 would not cause or contribute to any significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. | <ul style="list-style-type: none"> Impact 3.17-3: LTS (same as the Project) because projects facilitated by Alternative 2 would lead to increased use of recycled and gray water systems, requiring the development of new water recycling and direct potable reuse facilities.. Alternative 2 would improve water efficiency, which could result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers. The impacts of development of other projects facilitated by Alternative 2 would be evaluated on an individual basis once sufficient site-specific, project-specific information becomes known. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. Impact 3.17-4: LTS (similar to but greater than the Project) because projects facilitated by Alternative 2 would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on water and energy efficiencies. Requisite consistency with the General Plan and applicable zoning requirements would assure that the impacts of projects facilitated by Alternative 2 would be less than significant; or such projects would be subject to mitigation measures or conditions of approval imposed as part of any project-specific review, to assure that the projects would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impact 3.17-5: SU (same as the Project) because projects facilitated by Alternative 2 would cause or contribute to a significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. Impact 3.17-6: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or contribute to any significant cumulative impact related to insufficient water supplies. Impact 3.17-7: SU (same as the Project) because projects facilitated by Alternative 2 would cause or contribute to any significant cumulative impact related to inadequate wastewater treatment capacity. Implementation of mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. Impact 3.17-8: LTS (same as the Project) because projects facilitated by Alternative 2 would not cause or contribute to any significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. | <ul style="list-style-type: none"> Impact 3.17-3: LTS (similar to but greater than the Project) because projects facilitated by Alternative 3 would lead to increased use of recycled and gray water systems, requiring the development of new water recycling and direct potable reuse facilities. Alternative 3 would improve water efficiency, which could result in a slight decrease in the amount of wastewater requiring treatment by wastewater treatment providers. However, this alternative would likely result in a greater impact than the Project because it would involve fewer projects through 2030 and 2035 that could increase water efficiency, which could result in a slight increase in the amount of wastewater requiring treatment by wastewater treatment providers as compared to the proposed project. The impacts of development of other projects facilitated by Alternative 3 would be evaluated on an individual basis once sufficient site-specific, project-specific information becomes known. Implementation of the identified mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. Impact 3.17-4: LTS (similar to but greater than the Project) because projects facilitated by Alternative 3 may not encourage the reduction of solid waste to the same extent as those facilitated by the Project. Requisite consistency with the General Plan and applicable zoning requirements would assure that the impacts of projects facilitated by Alternative 3 would be less than significant; or such projects would be subject to mitigation measures or conditions of approval imposed as part of any project-specific review, to assure that the projects would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impact 3.17-5: SU (similar to but less than the Project) because projects facilitated by Alternative 3 would cause or contribute to a significant cumulative impact related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to a significant cumulative impact. Impact 3.17-6: LTS (similar to but less than the Project) because projects facilitated by Alternative 3 would not cause or contribute to any significant cumulative impact related to insufficient water supplies. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to a significant cumulative impact. Impact 3.17-7: SU (similar to but less than the Project) because projects facilitated by Alternative 3 would not cause or contribute to any significant cumulative impact related to inadequate wastewater treatment capacity. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could cause or contribute to a significant cumulative impact. Implementation of mitigation measures in Section 3.17 would reduce related impacts, but not to a less-than-significant level. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|--------------|-------------------------------|---|---|--|---|---|
| 3.17 (cont.) | Utilities and Service Systems | | | | | <ul style="list-style-type: none"> Impact 3.17-8: LTS (same as the Project) because projects facilitated by Alternative 3 would not cause or contribute to any significant cumulative impact related to the generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. |
| 3.18 | Wildfire | <p>Impact 3.18-1: LTSM. Projects facilitated by the Draft 2045 CAP would substantially impair an adopted emergency response plan or emergency evacuation plan; however, because such projects would have to comply with requirements of the LACoFD Strategic Plan and prepare a traffic control plan as required by Mitigation Measure 3.15-1, the Project would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities. Any impacts would be identified and addressed before a related impact would occur.</p> <p>Impact 3.18-2: LTS. The Draft 2045 CAP would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Projects facilitated by the Draft 2045 CAP would have to comply with General Plan policies that are intended to reduce the potential for development to be located in high-fire-hazard areas, and that encourage mitigation to ensure that developments are built to be fire resistant and capable of ensuring proper ingress and egress and sufficient fire suppression resources on-site. Requisite compliance with state and local laws would further assure that the impact would be less than significant.</p> <p>Impact 3.18-3: LTSM. The Draft 2045 CAP would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment, because any new development within the County (including the unincorporated areas) would be subject to the Los Angeles County Fire Code. Fire Code compliance would ensure that projects facilitated by the Draft 2045 CAP in the unincorporated areas would occur in areas with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Such compliance would also ensure that developments within mapped very high fire hazard severity zones are properly inspected, obtain the applicable permits, and abide by fire prevention technique. Nonetheless, projects facilitated by the Draft 2045 CAP could result in a significant impact in this regard. Implementing Mitigation Measure 3.18-3, which would require any project applicant to prepare a fire prevention and response plans for construction and operations, would ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by Draft 2045 CAP measures and actions.</p> <p>Impact 3.18-4: LTS. The Draft 2045 CAP would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Requisite compliance with applicable laws, regulations, and ordinances would assure that new projects implementing Draft 2045 CAP measures would not result in a significant impact.</p> | <ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.18-1: No impact (less than the Project) because the No Project Alternative would not facilitate any project that would substantially impair an adopted emergency response plan or emergency evacuation plan. Impact 3.18-2: No impact (less than the Project) because the No Project Alternative would not facilitate any project that would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impact 3.18-3: No impact (less than the Project) because the No Project Alternative would not facilitate any project that would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment. Impact 3.18-4: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to impairment of an adopted emergency response plan or emergency evacuation plan. Impact 3.18-5: LTS. No impact (less than the Project) because the No Project Alternative would not facilitate any projects that would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Impact 3.18-6: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to impairment of an adopted emergency response plan or emergency evacuation plan. Impact 3.18-7: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impact 3.18-8: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment. | <ul style="list-style-type: none"> Overall: – (less than the Project) Impact 3.18-1: LTSM (similar to but less than the Project) because the carbon offset projects facilitated by Alternative 1 could be developed outside the County, and would reduce land disturbance by increasing carbon sequestration. Renewable energy projects facilitated by Alternative 1 would result in the same impacts as renewable energy projects facilitated by the Draft 2045 CAP. Requirements of the LACoFD Strategic Plan, other state and local laws, and Mitigation Measure 3.15-1 would continue to apply. Impact 3.18-2: LTS (same as the Project) because the carbon offset projects facilitated by Alternative 1 would have the same potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to their location. Like the projects facilitated by the Draft 2045 CAP, projects facilitated by Alternative 1 would have to comply with General Plan policies that are intended to reduce the potential for development to be located in high-fire-hazard areas, and that encourage mitigation to ensure that developments are built to be fire resistant and capable of ensuring proper ingress and egress and sufficient fire suppression resources on-site. Requisite compliance with state and local laws would further assure that the impact would be less than significant. Impact 3.18-3: LTSM (same as the Project) because the carbon offset projects facilitated by Alternative 1 could include the development of renewable energy projects that would have the same potential to exacerbate fire risk or result in temporary or ongoing impacts on the environment due to their location. Implementing Mitigation Measure 3.18-3, which would require any project applicant to prepare fire prevention and response plans, would ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by measures and actions included in Alternative 1. Impact 3.18-4: LTS (same as the Project) because projects facilitated by Alternative 1 would have the same potential to expose people or structures to significant risks, and would be subject to the same laws, regulations, and ordinances, which would ensure that the impact would be less than significant. Impact 3.18-5: LTSM (same as the Project) because projects facilitated by Alternative 1 would have the same potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Requisite compliance with the Los Angeles County Fire Code, the California Building Code, and policies in the General Plan would reduce this impact, and implementation of Mitigation Measure 3.18-3 would reduce this impact to less than significant. | <ul style="list-style-type: none"> Overall: = (same as the Project) Impact 3.18-1: LTSM (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 (whether as new-builds or retrofits) would be subject to the requirements of the LACoFD Strategic Plan, other state and local laws, and Mitigation Measure 3.15-1 to reduce this impact to less than significant. Impact 3.18-2: LTS (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 would have the same potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to their location. Like the projects facilitated by the Draft 2045 CAP, projects facilitated by Alternative 2 would have to comply with General Plan policies that are intended to reduce the potential for development to be located in high-fire-hazard areas, and that encourage mitigation to ensure that developments are built to be fire resistant and capable of ensuring proper ingress and egress and sufficient fire suppression resources on-site. Requisite compliance with state and local laws would further assure that the impact would be less than significant. Impact 3.18-3: LTSM (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 could include the development of renewable energy projects that would have the same potential to exacerbate fire risk or result in temporary or ongoing impacts on the environment due to their location. Nonetheless, projects facilitated by the Draft 2045 CAP could result in a significant impact in this regard. Implementing Mitigation Measure 3.18-3, which would require any project applicant to prepare fire prevention and response plans, would ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by measures and actions included in Alternative 2. Impact 3.18-4: LTS (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 would have the same potential to expose people or structures to significant risks, and would be subject to the same laws, regulations, and ordinances, which would ensure that the impact would be less than significant. Impact 3.18-5: LTSM (same as the Project) because projects facilitated by the ZNE building efficiency measures in Alternative 2 would have the same potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Requisite compliance with the Los Angeles County Fire Code, the California Building Code, and policies in the General Plan would reduce this impact, and implementation of Mitigation Measure 3.18-3 would reduce this impact to less than significant. | <ul style="list-style-type: none"> Overall: – (similar to but less than the Project), although a conclusion of either greater than or less than the Project could also be drawn. It is possible that this alternative could have greater impacts than the Project (still LTSM) because it would involve fewer projects through 2030 and 2035 that would manage wildlands for wildfire risk reduction and carbon stock savings, and fewer projects to reduce unintended human ignitions and wildfire risk and prevent carbon loss in forest lands. Alternatively, the implementation of fewer projects could reduce impairment of emergency response plans, reduce exacerbation of wildfire risk, reduce exposure of people or structures to significant risks, and other related effects, which would have less of an impact than the Project. Impact 3.18-1: LTSM (similar to but less than the Project) because renewable energy projects facilitated by Alternative 3 would result in the same impacts as renewable energy projects facilitated by the Draft 2045 CAP. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could substantially impair an adopted emergency response plan or emergency evacuation plan. Requirements of the LACoFD Strategic Plan, other state and local laws, and Mitigation Measure 3.15-1 would continue to apply. Impact 3.18-2: LTS (similar to but less than the Project) because the projects facilitated by Alternative 3 would have the same potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to their location. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Like the projects facilitated by the Draft 2045 CAP, projects facilitated by Alternative 3 would have to comply with General Plan policies that are intended to reduce the potential for development to be located in high-fire-hazard areas, and that encourage mitigation to ensure that developments are built to be fire resistant and capable of ensuring proper ingress and egress and sufficient fire suppression resources on-site. Requisite compliance with state and local laws would further assure that the impact would be less than significant. Impact 3.18-3: LTSM (similar to but less than the Project) because the projects facilitated by Alternative 3 could include the development of renewable energy projects that would have the same potential to exacerbate fire risk or result in temporary or ongoing impacts on the environment due to their location. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Implementing Mitigation Measure 3.18-3, which would require any project applicant to prepare fire prevention and response plans, would ensure that wildland fire-related hazards would not be exacerbated by construction and operation of future projects facilitated by measures and actions included in Alternative 3. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|----------------------------|------------------------|--|--|--|--|---|
| <p>3.18 (cont.)</p> | <p>Wildfire</p> | <p>Impact 3.18-5: LTSM. Projects facilitated by Draft 2045 CAP measures and actions would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Requisite compliance with the Los Angeles County Fire Code, the California Building Code, and policies in the General Plan would reduce the impact and implementation of Mitigation Measure 3.18-3 would reduce the impact of any projects facilitated by the Draft 2045 CAP in the unincorporated areas to less than significant.</p> <p>Impact 3.18-6: LTSM. The Project's contribution to cumulative impacts would not be cumulatively considerable with implementation of Mitigation Measure 3.15-1, which would reduce this impact related to the impairment of an adopted emergency response plan or emergency evacuation plan to a less than cumulatively considerable (less-than-significant) level.</p> <p>Impact 3.18-7: LTS. The Project's incremental less-than-significant contribution to cumulative impacts would not be cumulatively considerable with respect to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.</p> <p>Impact 3.18-8: LTSM. The Project's incremental contribution to cumulative impacts would not cause or contribute to any significant cumulative impact related to the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk, or that may result in temporary or ongoing cumulative impacts on the environment, so long as Mitigation Measure 3.18-3 is implemented. Implementation of this measure would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE.</p> <p>Impact 3.18-9: LTS. The Draft 2045 CAP would not cause or contribute to any significant cumulative impact related to the exposure of people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, so long as Mitigation Measure 3.18-3 is implemented. This measure would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE.</p> <p>Impact 3.18-10: LTSM. The Project's incremental contribution to cumulative impacts would not cause or contribute to any significant cumulative impact related to the risk of loss, injury, or death involving wildland fires, so long as Mitigation Measure 3.18-3 is implemented. Implementation of this measure would ensure that the incremental cumulative risk of wildfire from projects facilitated by the Draft 2045 CAP measures and actions would be managed through collaboration with LACoFD and CAL FIRE.</p> | <ul style="list-style-type: none"> Impact 3.18-9: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the exposure of people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Impact 3.18-10: No impact (less than the Project) because the No Project Alternative would not cause or contribute to any significant cumulative impact related to the exposure of people or structures to the risk of loss, injury, or death involving wildland fires. | <ul style="list-style-type: none"> Impact 3.18-6: LTSM (same as the Project) because Alternative 1's incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to impairment of an adopted emergency response plan or emergency evacuation plan, so long as Mitigation Measure 3.15-1 were implemented. Impact 3.18-7: LTS (same as the Project) because Alternative 1's less-than-significant incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impact 3.18-8: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 1 would be managed through collaboration with LACoFD and CAL FIRE. Impact 3.18-9: LTS (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 1 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. Impact 3.18-10: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 1 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. | <ul style="list-style-type: none"> Impact 3.18-6: LTSM (same as the Project) because Alternative 2's incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to impairment of an adopted emergency response plan or emergency evacuation plan, so long as Mitigation Measure 3.15-1 were implemented. Impact 3.18-7: LTS (same as the Project) because Alternative 2's less-than-significant incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impact 3.18-8: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 2 would be managed through collaboration with LACoFD and CAL FIRE. Impact 3.18-9: LTS (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 2 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. Impact 3.18-10: LTSM (same as the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 2 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. | <ul style="list-style-type: none"> Impact 3.18-4: LTS (similar to but less than the Project) because projects facilitated by Alternative 3 would have the same potential to expose people or structures to significant risks, and would be subject to the same laws, regulations, and ordinances, which would ensure that the impact would be less than significant. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Impact 3.18-5: LTSM (similar to but less than the Project) because projects facilitated by Alternative 3 would have the same potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Requisite compliance with the Los Angeles County Fire Code, the California Building Code, and policies in the General Plan would reduce this impact, and implementation of Mitigation Measure 3.18-3 would reduce this impact to less than significant. Impact 3.18-6: LTSM (similar to but less than the Project) because Alternative 3's incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to impairment of an adopted emergency response plan or emergency evacuation plan, so long as Mitigation Measure 3.15-1 were implemented. This alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Impact 3.18-7: LTS (similar to but less than the Project) because Alternative 3's less-than-significant incremental contribution to cumulative impacts would not cause or contribute to a significant cumulative impact with regard to the exacerbation of cumulative wildfire risks that would expose project occupants to significant pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Impact 3.18-8: LTSM (similar to but less than the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 3 would be managed through collaboration with LACoFD and CAL FIRE. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. Impact 3.18-9: LTS (similar to but less than the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 3 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. |

**TABLE 4-6 (CONTINUED)
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES**

| EIR Section | Resource Area | Project | No Project Alternative | Alternative 1, Carbon Offset Alternative | Alternative 2, Zero Net Energy Buildings Alternative | Alternative 3, Lower Targets Alternative |
|-----------------|---------------|---------|------------------------|--|--|---|
| 3.18 (cont.) | Wildfire | | | | | <ul style="list-style-type: none"> Impact 3.18-10: LTSM (similar to but less than the Project) because implementing Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by Alternative 3 would be managed through collaboration with LACoFD and CAL FIRE, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. However, this alternative would likely result in a lesser impact than the Project because it would involve fewer projects through 2030 and 2035 that could have these effects. |

NOTES:

AAQS = ambient air quality standards; AB = Assembly Bill; ALUP = airport land use plan; AQMP = air quality management plan; AVAQMD = Antelope Valley Air Quality Management District; BAU = business-as-usual; CAL FIRE = California Department of Forestry and Fire Protection; CALGreen Code = California Green Building Standards Code; California Register = California Register of Historical Resources; CARB = California Air Resources Board; CBC = California Building Code; CDFW = California Department of Fish and Wildlife; CdTe = cadmium telluride; CEQA = California Environmental Quality Act; Construction General Permit = California Construction Stormwater Permit; Unincorporated Los Angeles County = unincorporated areas of Los Angeles County; Countywide = Los Angeles County in its entirety, inclusive of both unincorporated areas and all 88 incorporated cities; dBA = A-weighted decibels; Draft 2045 CAP = draft 2045 Los Angeles County Climate Action Plan; EIR = environmental impact report; FAA = Federal Aviation Administration; General Plan = Los Angeles County General Plan 2035; GHG = greenhouse gas; GWP = global warming potential; HMA = Hillside Management Area; County = County of Los Angeles; LACoFD = Los Angeles County Fire Department; LID = low impact development; MS4 = Municipal Separate Storm Water System; MTCO₂e = metric tons of carbon dioxide equivalent; OurCounty Sustainability Plan = OurCounty: Los Angeles Countywide Sustainability Plan; Project = 2045 Los Angeles County Climate Action Plan; PV = photovoltaic; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SCAG = Southern California Association of Governments; SCAQMD = South Coast Air Quality Management District; SGMA = Sustainable Groundwater Management Act; TAC = toxic air contaminant; USFWS = U.S. Fish and Wildlife Service; VMT = vehicle miles traveled; ZNE = zero net energy

Impact Conclusions: LTS = less than significant; LTSM = less than significant with mitigation incorporated; SU = significant and unavoidable

SOURCE: Data compiled by Environmental Science Associates in 2022 and 2023

CHAPTER 5

Other CEQA Considerations

5.1 Introduction

CEQA Guidelines Section 15126 requires an EIR to discuss certain topics that were not specifically discussed in previous EIR chapters. Accordingly, this chapter discusses the following topics:

- (1) Significant environmental effects that cannot be avoided if the Project is implemented.
- (2) Significant irreversible environmental changes that would result from implementation of the Project.
- (3) Growth-inducing impacts of the Project.

5.2 Significant Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe any significant impacts that cannot be avoided. The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would cause the significant and unavoidable impacts identified in **Table 5-1, Significant and Unavoidable Impacts**.

**TABLE 5-1
SIGNIFICANT AND UNAVOIDABLE IMPACTS**

| Resource Consideration | Location of Additional Details |
|--|--------------------------------|
| Aesthetics | Section 3.2 |
| The Project, as a result of projects facilitated by the Draft 2045 CAP, would: | |
| <ul style="list-style-type: none"> • Have a substantial adverse effect on a scenic vista at the Project level (Impact 3.2-1) and cumulatively (Impact 3.2-6). • Be visible from or obstruct views from a regional riding, hiking, or multiuse trail at the Project level (Impact 3.2-2) and cumulatively (Impact 3.2-7). • Substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway at the Project level (Impact 3.2-3) and cumulatively (Impact 3.2-8). • Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality. (Public views are those that are experienced from a publicly accessible vantage point.) The impact would occur at the Project level (Impact 3.2-4) and cumulatively (Impact 3.2-9). | |
| Agriculture and Forestry Resources | Section 3.3 |
| <ul style="list-style-type: none"> • Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use at the Project level (Impact 3.3-1) and cumulatively (Impact 3.3-7). • Conflict with zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract at the Project level (Impact 3.3-2) and cumulatively (Impact 3.3-8). • Involve changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use at the Project level (Impact 3.3-5) and cumulatively (Impact 3.3-11). | |

TABLE 5-1 (CONTINUED)
SIGNIFICANT AND UNAVOIDABLE IMPACTS

| Resource Consideration | Location of Additional Details |
|--|---------------------------------------|
| Air Quality | Section 3.4 |
| The Project, as a result of projects facilitated by the Draft 2045 CAP, would: | |
| <ul style="list-style-type: none"> • Conflict with or obstruct implementation of the applicable air quality plan at the Project level (Impact 3.4-1) and cumulatively (Impact 3.4-5). • Result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (Impact 3.4-2 and Impact 3.4-6). • Potentially expose sensitive receptors to substantial pollutant concentrations associated with localized air pollutant toxic air contaminant (TAC) emissions (Impact 3.4-3a) and cumulatively (Impact 3.4-7). | |
| Biological Resources | Section 3.5 |
| The Project, as a result of projects facilitated by Draft 2045 CAP measures and actions, would: | |
| <ul style="list-style-type: none"> • Have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). This impact would be significant and unavoidable at the Project level (Impact 3.5-2) and cumulatively (Impact 3.5-7). • Have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS at the Project level (Impact 3.5-3) and cumulatively (Impact 3.4-8). • Interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This impact would be significant and unavoidable at the Project level (Impact 3.5-5) and cumulatively (Impact 3.5-10). • Contribute to the cumulative conversion of oak woodlands or other unique native woodlands (Impact 3.5-11). | |
| Noise | Section 3.13 |
| The Project, as a result of projects facilitated by the Draft 2045 CAP, could: | |
| <ul style="list-style-type: none"> • Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact would be significant and unavoidable at the Project level (Impact 3.13-1) and cumulatively (Impact 3.13-3). • Generate excessive groundborne vibration or groundborne noise levels. This impact would be significant and unavoidable at the Project level (Impact 3.13-2) and cumulatively (Impact 3.13-4). | |
| Utilities and Service Systems | Section 3.17 |
| <ul style="list-style-type: none"> • Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects at the Project level (Impact 3.17-1) and cumulatively (Impact 3.17-5). • Projects facilitated by the Draft 2045 CAP would result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments (Impact 3.17-3) and cumulatively (Impact 3.17-7). | |

5.3 Significant Irreversible Changes

The CEQA Guidelines require an EIR to address potential significant irreversible changes that would result from implementation of a project. According to CEQA Guidelines Section 15126.2(c), such a change would involve one or more of the following scenarios:

- (1) A change in land use that commits future generations to similar uses.
- (2) Irreversible damage from environmental accidents.
- (3) A large commitment of nonrenewable resources.

The Draft 2045 CAP proposes no changes in land use. It proposes no change to General Plan land use or zoning code designations for any parcel in the unincorporated County. Instead, implementation of the Draft 2045 CAP, once approved, would rely on already-adopted General Plan land use and zoning code designations. The Draft 2045 CAP's 2035 target of 50 percent below 2015 levels puts the County on a path to achieve the Draft 2045 CAP's 2045 long-term aspirational goal of carbon neutrality and statewide 2045 target as stipulated in Executive Order B-55-18. This is because the County's 2035 target of 50 percent below 2015 levels is equivalent to a 57 percent reduction below 1990 levels, which exceeds the state's target of 40 percent below 1990 levels. The Draft 2045 CAP does not include individual project-specific, location-specific projects facilitated by measures and actions included in the Draft 2045 CAP. Future generations would not be committed to any particular land use as a result of the Draft 2045 CAP. The Draft 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development already allowed under the General Plan's land use assumptions in the Land Use Element and 2021–2029 Housing Element. No changes to General Plan land use designations, zoning, or land use specific projects are proposed as part of the Draft 2045 CAP.

The Draft 2045 CAP would not result in irreversible damage from environmental accidents if Mitigation Measure 3.10-2 is adopted. As analyzed in Section 3.10, *Hazards and Hazardous Materials*, approval of the Draft 2045 CAP could not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials or waste into the environment in the absence of mitigation. However, Mitigation Measure 3.10-2 would be implemented for future solar projects facilitated by the Draft 2045 CAP; implementing Mitigation Measure 3.10-2 would ensure that hazardous waste from broken solar panels containing cadmium telluride is disposed of properly if not recycled.

The Draft 2045 CAP is a policy document intended to reduce greenhouse gas emissions in unincorporated areas of the County. The construction of projects facilitated by Draft 2045 CAP measures and actions could have impacts related to hazardous materials; however, requisite compliance with independently enforceable federal and state laws governing the transportation, storage, use, and cleanup of hazardous materials and wastes otherwise would prevent any accidental release from causing irreversible environmental damage.

The Draft 2045 CAP would not result in a large commitment of nonrenewable resources. As explained above, the Draft 2045 CAP is a policy document that charts a path toward carbon neutrality in the unincorporated areas of Los Angeles County. Individual projects facilitated by the Draft 2045 CAP measures and actions may require the consumption of nonrenewable resources for their implementation, but these would not be large commitments.

5.4 Growth-Inducing Impacts

Pursuant to CEQA Guidelines Section 15126.2(e), an EIR must discuss a project's potential growth-inducing effects. The CEQA Guidelines generally describe such effects as the following:

- (1) Economic growth, population growth, or additional housing in the surrounding environment.
- (2) Removal of obstacles to population growth (e.g., a major expansion of a wastewater treatment facility that allows for more construction in the service area).

- (3) Increases in population that tax existing services, requiring construction of new facilities that could cause significant environmental effects.
- (4) Characteristics of a project that would encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

As analyzed in Section 3.14, *Population and Housing*, the Draft 2045 CAP would support development allowed under the General Plan land use assumptions of the 2021–2029 Housing Element. The Draft 2045 CAP is a policy document that does not directly include site-specific projects that would induce population growth. The Draft 2045 CAP includes Measure T1 to encourage density near high-quality transit areas, and Measure T2 to develop land use plans addressing the jobs-housing balance and increased mixed use to the extent allowed by the General Plan. No changes to General Plan land use designations are proposed. Therefore, the Draft 2045 CAP would not result in an unplanned increase in population or housing outside of what was accounted for in the General Plan with the 2021–2029 Housing Element.

CHAPTER 6

Report Preparation

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Aesthetics

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Paleontological Resources

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| Jaclyn Catino-Davenport | Biological Resources |
| Daryl Koutnik, PhD. | Biological Resources |
| Shadde Rosenblum | Transportation |
| Brian Schuster | Project Description, Alternatives, Air Quality, GHG Emissions |
| Alan Sako, LEED-AP BD+C | Air Quality, Energy, GHG Emissions, Noise |
| Olivia Silverstein | Population and Housing, Utilities and Service Systems |
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6.4 Entities Consulted and Recipients of the Recirculated Draft PEIR and/or the Notice of Availability

Federal Agencies

Edwards Air Force Base Encroachment Protection
Environmental Protection Agency
Federal Aviation Administration
National Park Service
NAVFACSW, Intergovernmental Branch AM-3
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
United States Forest Service

State Agencies

Bureau of Land Management
 California Department of Education
 California Regional Water Quality Control Board, Lahontan Region 6
 California Regional Water Quality Control Board, Los Angeles Region 4
 California Air Resources Board
 California Emergency Management Agency
 California Highway Patrol
 California Office of Environmental Health Hazard Assessment
 California Public Utilities Commission
 CalRecycle Southern California Office
 Caltrans District #7
 Caltrans Planning
 CDFW South Coast Region
 Coastal Commission
 Colorado River Board
 Department of Boating and Waterways
 Department of Conservation
 Department of Corrections and Rehabilitation
 Department of Food and Agriculture
 Department of Forestry and Fire Protection
 Department of General Services
 Department of Parks and Recreation
 Department of Pesticide Regulation
 Department of Resources Recycling and Recovery
 Department of Water Resources
 Department of Toxic Substances Control
 Energy Commission
 Housing and Community Development
 Native American Heritage Commission
 Office of Historic Preservation
 Regional Water Quality Control Board
 Resources Agency
 San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
 Santa Monica Mountains Conservancy
 State Lands Commission

Regional Agencies

Antelope Valley Air Quality Management District
 Gateway Cities Council of Governments
 Los Angeles County Sanitation District
 Las Virgenes/Malibu Council of Governments

Regional Agencies

Metropolitan Transportation Authority Planning Division
Metropolitan Water District
North Los Angeles County Transportation Coalition JPA
Resource Conservation District of Santa Monica Mountains
San Fernando Valley Council of Governments
South Bay Cities Council of Governments
South Coast Air Quality Management District
Southern California Association of Governments
Westside Cities Council of Governments

Local Jurisdictions

| | |
|-----------------------|-----------------------|
| Agoura Hills | Lakewood |
| Alhambra | Lancaster |
| Altadena Town Council | Lawndale |
| Arcadia | Lomita |
| Artesia | Long Beach |
| Avalon | Los Angeles |
| Azusa | Lynwood |
| Baldwin Park | Malibu |
| Bell | Manhattan Beach |
| Bell Gardens | Maywood |
| Bellflower | Monrovia |
| Beverly Hills | Montebello |
| Bradbury | Monterey Park |
| Brea | Norwalk |
| Burbank | Orange County |
| Calabasas | Palmdale |
| Carson | Palos Verdes Estates |
| Cerritos | Paramount |
| City of Ventura | Pasadena |
| Claremont | Pico Rivera |
| Commerce, City of | Pomona |
| Compton | Rancho Palos Verdes |
| Covina | Redondo Beach |
| Cudahy | Rolling Hills |
| Culver City | Rolling Hills Estates |
| Diamond Bar | Rosemead |
| Downey | San Bernadino County |
| Duarte | San Dimas |
| El Monte | San Fernando |
| El Segundo | San Gabriel |
| Gardena | San Marino |
| Glendale | Santa Clarita |
| Glendora | Santa Fe Springs |
| Hawaiian Gardens | Santa Monica |
| Hawthorne | Sierra Madre |
| Hermosa Beach | Signal Hill |
| Hidden Hills | South El Monte |

Local Jurisdictions

| | |
|----------------------|------------------|
| Huntington Park | South Gate |
| Industry, City of | South Pasadena |
| Inglewood | Temple City |
| Irwindale | Torrance |
| Kern County | Ventura County |
| La Cañada Flintridge | Vernon |
| La Habra Heights | Walnut |
| La Mirada | West Covina |
| La Puente | West Hollywood |
| La Verne | Westlake Village |
| | Whittier |

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| Anthony Morales | Gabrielino Tongva San Gabriel Band of Mission Indians/Chief |
| Jairo Avila | Fernandeño Tataviam Band of Mission Indians/Tribal Historic and Cultural Preservation Officer |
| Lee Clauss | San Manuel Band of Mission Indians/Cultural Resources Management Director |
| Octavio Escobedo | Tejon Indian Tribe/Tribal Chair |
| Charles Alvarez | Gabrielino – Tongva Tribe |
| Donna Yocum | San Fernando Band of Mission Indians/Chairperson |
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| Gino Altamirano | Coastal Band of the Chumash Nation/Chairperson |
| Julie Tumamait-Stenslie | Barbareno/Ventureno Band of Mission Indians/Chairperson |
| Julio Quair | Chumash Council of Bakersfield/Chairperson |
| Kenneth Kahn | Santa Ynez Band of Chumash Indians/Chairperson |
| Lee Clauss | San Manuel Band of Mission Indians/Director of Cultural Resources |
| Mark Cochrane | Serrano Nation of Mission Indians/Co-Chairperson |
| Mark Vigil | San Luis Obispo County Chumash Council/Chief |
| Matias Belardes | Juaneno Band of Mission Indians Acjachemen Nation-Belardes/Chairperson |
| Mona Tucker | Yak tityu tityu yak tithini-Northern Chumas Tribe/Chairperson |
| Robert Dorame | Gabrielino Tongva Indians of California Tribal Council/Chairperson |
| Robert L. Gomez | Tubatulabals of Kern Valley/Chairperson |
| Robert Martin | Morongo Band of Mission Indians/Chairperson |
| Robert Robinson | Kern Valley Indian Community/Chairperson |
| Rudy Ortega | Fernandeno Tataviam Band of Mission Indians/Tribal President |
| Sandonne Goad | Gabrielino/Tongva Nation/Chairperson |
| Sonia Johnston | Juaneno Band of Mission Indians/Chairperson |
| Teresa Romero | Juaneno Band of Mission Indians Acjachemen Nation – Romero/Chairperson |
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| Susan Arakawa | Santa Ynez Band of Chumash Indians/Elders' Council and Culture Department Administrative Assistant |

CHAPTER 7

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7.6 Chapter 5, Other CEQA Considerations

No references cited in this chapter.

7.7 Chapter 6, Report Preparation

No references cited in this chapter.

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Appendix A

Scoping



A.1 Notice of Preparation



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING

DATE: December 23, 2021

TO: Office of Planning and Research, Responsible Agencies, Trustee Agencies, Organizations, and Interested Parties

SUBJECT: **Notice of Preparation of a Program Environmental Impact Report and Public Scoping Meeting for the Los Angeles County 2045 Climate Action Plan**

PROJECT NAME: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP)

PROJECT LOCATION: Unincorporated areas of Los Angeles County; see Figure 1.

The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR.

PROJECT DESCRIPTION: The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5.

POTENTIAL ENVIRONMENTAL EFFECTS: The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

PUBLIC REVIEW PERIOD: The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines.

A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence.

Please send written comments to the following address:

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

For email submittal of your comment letter, send to: climate@planning.lacounty.gov

Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR.

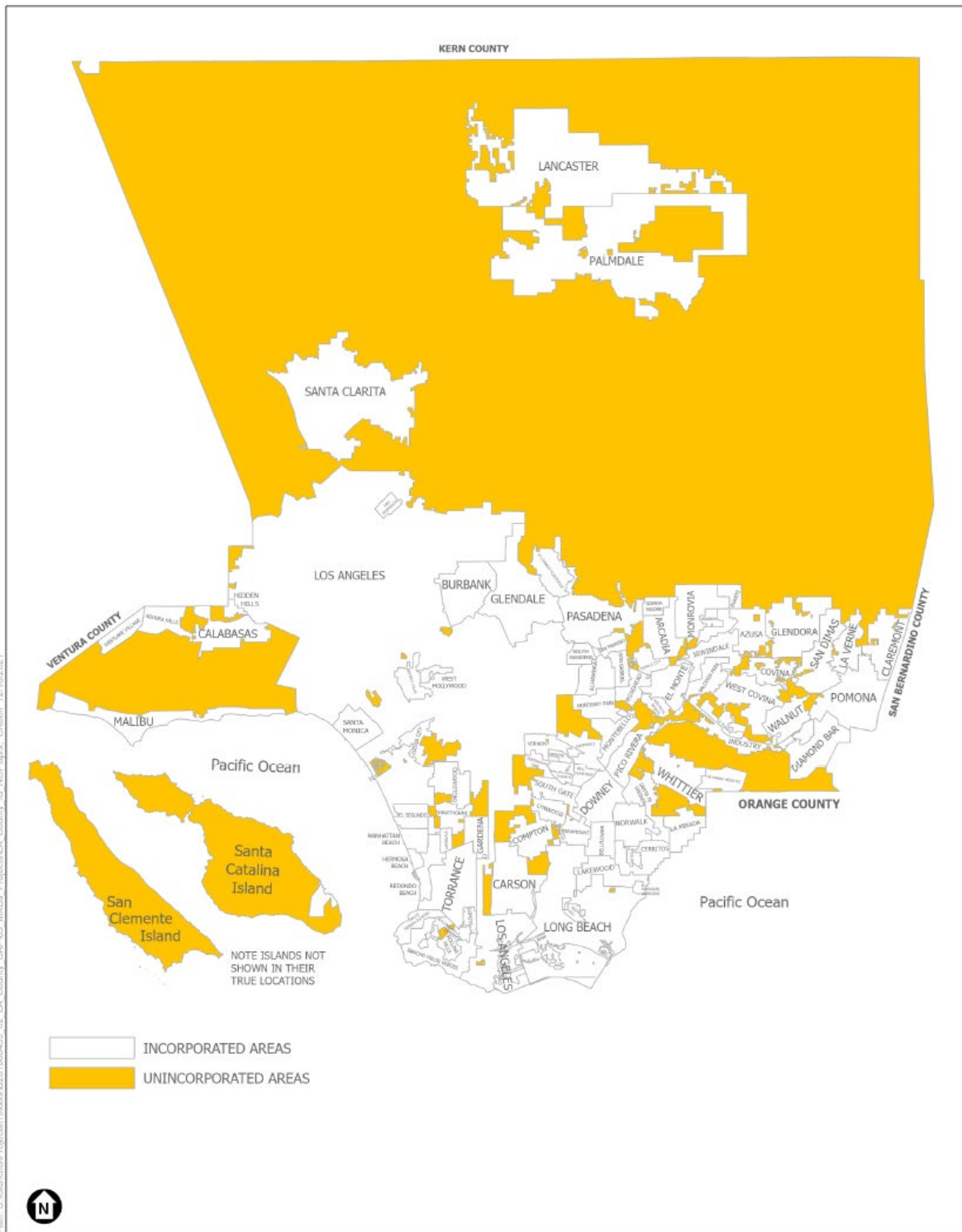
DOCUMENT AVAILABILITY AND PROJECT WEBSITE: This Notice of Preparation and the Initial Study are available for view online at: <https://planning.lacounty.gov/climate>.

NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR.

Notice of Preparation of a Program Environmental Impact Report and Public Scoping Meeting for the Los Angeles County 2045 Climate Action Plan
December 23, 2021
Page 3

The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR.

The scoping meeting will be held online via Zoom on **January 13, 2022 at 5:00 p.m. PST**. Please visit <https://planning.lacounty.gov/site/climate/meetings-hearings/> to register for the meeting.



SOURCE: Los Angeles County Climate Action Plan
March 2020 Public Review Draft

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 1
Map of Unincorporated Los Angeles County



A.2 Initial Study

Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning



Project title: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP)

Lead agency name and address: Los Angeles County, 320 West Temple Street, Los Angeles, CA 90012

Contact Person and phone number: Thuy Hua, 213.974.6461

Project sponsor's name and address:

Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Flr
Los Angeles, California 90012

Project location: Los Angeles County (County-wide)

APN: _____ *USGS Quad:* _____

Gross Acreage: Approximately 1,696,000 acres (approximately 2,650 square miles)

General plan designation: Implementation of the Draft 2045 CAP, once approved, would occur throughout unincorporated Los Angeles County in all General Plan designations.

Community/Area wide Plan designation: Implementation of the Draft 2045 CAP, once approved, would occur throughout unincorporated Los Angeles County in all Community Plan and Area Plan designations.

Zoning: Implementation of the Draft 2045 CAP, once approved, would occur throughout unincorporated Los Angeles County in all zoning designations.

Description of project:

Background

The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan (General Plan) (Los Angeles County 2015). The 2020 CCAP projected greenhouse gas (GHG) emissions from community activities in the unincorporated areas of Los Angeles County (County) to the year 2020 and identified actions to reduce those emissions below the level prescribed by AB 32, the Global Warming Solutions Act of 2006 (Los Angeles County 2015). Since then, various actions have been implemented and expanded to include other related efforts to reduce GHG emissions.

Generally, statewide targets are to reduce emissions to 40 percent below 1990 levels by 2030 (SB 32) and achieve carbon neutrality by 2045 (EO B-55-18). While not required to do so by law, the Draft 2045 CAP will allow the County to demonstrate how local actions can support these goals and ensure that the County contributes to the reduction of GHG emissions in alignment with the goals of the state and the OurCounty

Sustainability Plan (Los Angeles County 2019), including a 25 percent reduction in GHG emissions below 2015 levels by 2025, a 50 percent reduction below 2015 levels by 2035, and carbon neutrality by 2045.

The 2020 CCAP projected GHG emissions based on the General Plan growth to the year 2020 and identified actions which would reduce those emissions below the identified state targets at the time. The Draft 2045 CAP will provide a similar approach to the reduction of GHG emissions from community activities, including future development projected to 2030, 2035 under the General Plan, and 2045. Similar to the 2020 CCAP, the Draft 2045 CAP will be modeled with the land use assumptions, policies and implementation programs found within the General Plan (including the current Housing Element (6th Cycle), as well as within other County projects and programs.

In early 2020, the Department of Regional Planning (DRP) released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns, such as locating new housing developments away from existing sources of air pollution, and ensuring revenues from the state's Cap and Trade program benefit the County's disadvantaged communities; and a new development review consistency checklist to allow projects to streamline CEQA compliance for their projects by using the CAP, per CEQA Guidelines § 15183.5.

Contents of the Draft 2045 CAP

The Draft 2045 CAP will contain an executive summary and four chapters. Appendices A through C will provide additional detail on topics covered within the Draft 2045 CAP. A brief summary of each component follows:

- **Executive Summary:** The executive summary will include a synopsis of the Draft 2045 CAP, including its goals, GHG inventories and business-as-usual (BAU) forecasts, new 2030/2035/2045 targets, revised GHG reduction actions and their impact, and implementation steps.
- **Chapter 1 – Introduction and Need:** This chapter will provide a summary of the latest climate change science and regulations, and discussion of policies implemented since the 2020 CCAP was adopted. Chapter 1 also will provide an overview of the climate hazards and risks expected in Los Angeles County under high and low emissions scenarios. A discussion on resilience and equity will also be included.
- **Chapter 2 – Emissions Inventory, BAU Forecasts, and GHG Reduction Targets:** This chapter will present the results of the 2010, 2015, and 2018 GHG inventories and the BAU forecasts for 2025, 2035, and 2045. It will also summarize the 1990 GHG emissions backcast as it relates to the CAP's emission reduction targets. It will include a discussion of each emission sector and its major sources of GHG emissions, and a concise trends analysis to compare the 2010 and 2015 inventories with the current 2018 inventory and identify the primary sources of change in emissions (i.e., economic growth or contraction, technology and regulatory changes, climatic conditions, differences in methods and datasets, and new emission factors). This chapter will also discuss the County's 2030, 2035, and 2045 targets.
- **Chapter 3 – GHG Emission Reduction Strategy:** This chapter will describe the series of GHG reduction actions (GRAs) needed for the County to achieve its reductions targets, and the timeline for implementation. Estimated GHG emission reductions for all state, regional, and local GRAs (and supporting actions) for each future target/forecast year will be provided. A high-level cost-benefit

analysis will be provided for each GRA, including co-benefits to public health, equity, community resilience, climate adaptation, and the economy. Details of quantification methods and assumptions will be provided in a technical appendix. The Draft 2045 CAP includes 11 overarching strategies and 26 measures, each of which has multiple implementing actions (GRAs). The differences among strategies, measures, and GRAs are as follows:

- Strategies aim for overarching goals within each emissions sector.
 - Measures are focused, sub-sector specific programs and goals to achieve each strategy; most measures include performance standards, which are designed to be quantified for GHG emission reductions. Measures will be achieved through individual implementing GRAs.
 - GRAs are the specific policies, programs, or tools that will be implemented for each measure. GRAs are intended to be implemented in a coordinated manner to make meaningful progress toward achieving the associated measure.
- **Chapter 4 – Implementation and Monitoring:** This chapter will include the Draft 2045 CAP implementation and monitoring program, outlining for each GRA the specific actions to be taken, the needs for operational and capital resources, policy and regulatory changes, and the department and/or other entities responsible for implementation. The implementation plan will include performance indicators for each GRA that will be used to track progress toward achieving each future target, which can be done on an annual basis. This chapter will also summarize CEQA provisions and any development project review requirements for CEQA streamlining.
 - **Appendix A – GHG Inventory Report:** This appendix will include a more detailed presentation of the County’s 2010, 2015, and 2018 GHG inventories, including a description of the protocols and quantification methods used to prepare them.
 - **Appendix B – GHG Reduction Action Quantification Methods:** This appendix will describe the methods used to quantify GHG reductions for all GRAs.
 - **Appendix C – CAP Consistently Checklist:** This appendix will include the consistency checklist for new development.

List of GHG Reduction Strategies and Measures

The Draft 2045 CAP is anticipated to include approximately 26 recommended GHG reduction measures. Each includes multiple implementing actions. The recommended GHG reduction measures are to be organized under the five main categories and 11 strategies listed below.

Climate Leadership

- Strategy 1: Lead by example towards carbon neutrality
 - Measure CL1: Develop a Sunset Strategy for all Oil and Gas operations
 - Measure CL2: Establish GHG Requirements for New Development

Transportation

- Strategy 2: Increase densities and diversity of destinations with an emphasis near transit
 - Measure T1: Increase Density Near High-Quality Transit Areas
 - Measure T2: Develop Land Use Plans Addressing Jobs/Housing Balance & Increase Mixed Use
- Strategy 3: Reduce single-occupancy vehicle trips

- Measure T3: Expand Bicycle & Pedestrian Network to Serve Residential, Employment, & Recreational Trips
- Measure T4: Encourage Transit, Active Transportation, & Alternative Modes of Transportation
- Measure T5: Parking Limitations & Removal of Parking Minimums
- Strategy 4: Institutionalize low-carbon transportation
 - Measure T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales
 - Measure T7: Electrify County Fleet Vehicles
 - Measure T8: Accelerate Freight Decarbonization
 - Measure T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles & Equipment

Building Energy & Water

- Strategy 5: Decarbonize buildings and energy use
 - Measure E1: Procure Zero-Carbon Electricity
 - Measure E2: Transition Existing Buildings to All-Electric
 - Measure E3: Standardize All-Electric New Development
 - Measure E4: Other Decarbonization Actions
- Strategy 6: Increase generation and resilience of renewable energy
 - Measure E5: Increase Renewable Energy Production
 - Measure E6: Increase Energy Resilience
- Strategy 7: Improve efficiency of building energy use
 - Measure E7: Improve Energy Efficiency of Existing Buildings
- Strategy 8: Promote water conservation
 - Measure E8: Increase Use of Recycled Water and Gray Water Systems
 - Measure E9: Reduce Indoor and Outdoor Water Consumption

Waste

- Strategy 9: Reduce and divert waste
 - Measure W1: Increase Organic Waste Diversion
 - Measure W2: Maximize Countywide Diversion Rate
 - Measure W3: Institutionalize Sustainable Waste Systems & Practices

Agriculture, Forestry, and Other Land Use

- Strategy 10: Conserve Forests and Working Lands
 - Measure A1: Conserve Agricultural and Forest Lands

- Strategy 11: Promote Carbon Sequestration and Sustainable Agriculture
 - Measure A2: Implement Regenerative Agricultural Practices
 - Measure A3: Expand the County’s Tree Canopy & Green Spaces

References

County of Los Angeles, 2015. Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP). August 2015. URL: https://planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf.

County of Los Angeles, 2019. Los Angeles Countywide Sustainability Plan (OurCounty). Adopted August 9, 2019.

Surrounding land uses and setting: Los Angeles County is geographically one of the largest counties in the country. The County stretches along 75 miles of the Pacific Coast of Southern California and is bordered to the east by Orange County and San Bernardino County, to the north by Kern County, and to the west by Ventura County. Los Angeles County includes two offshore islands, Santa Catalina Island and San Clemente Island.

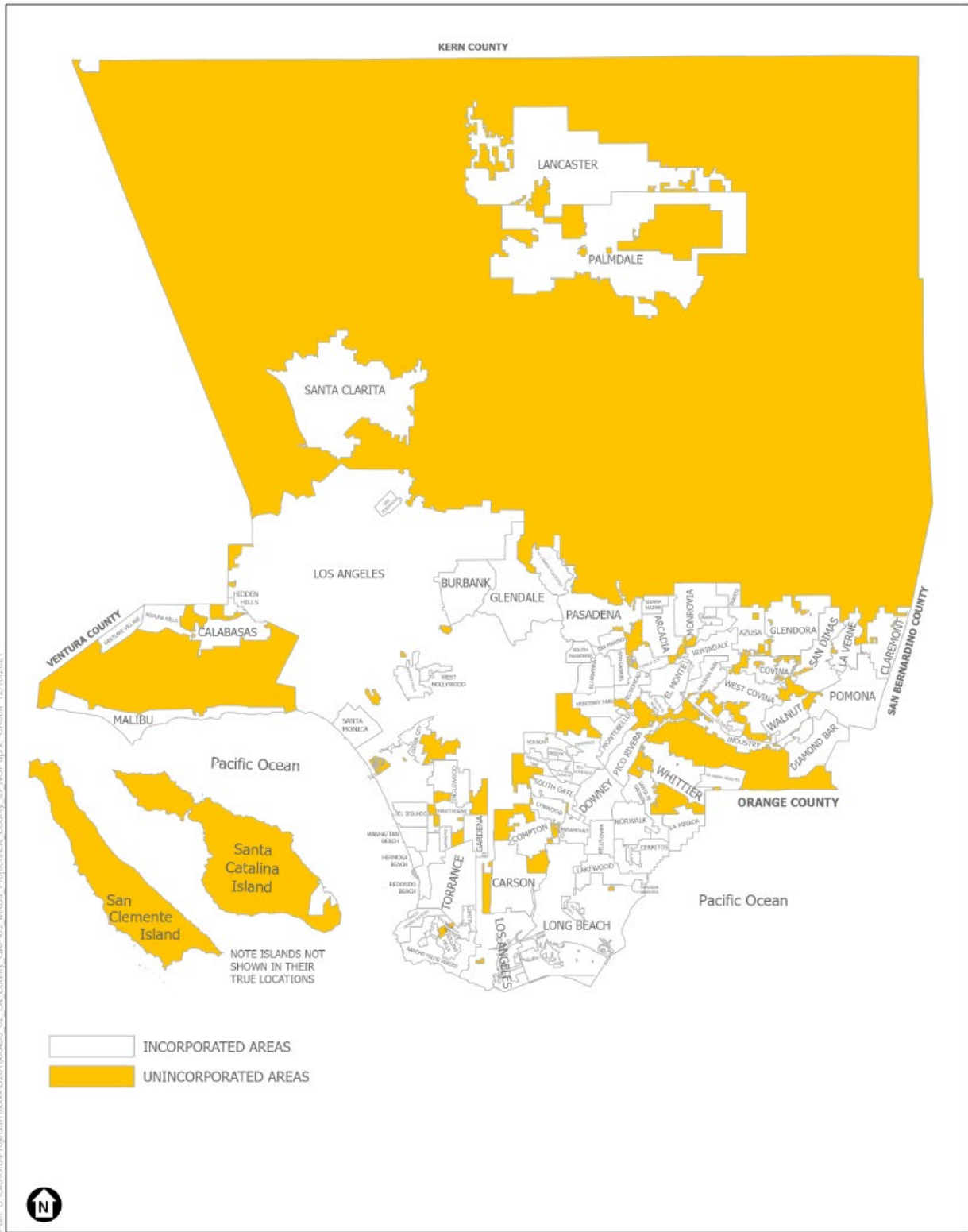
The project area includes only the unincorporated areas of Los Angeles County (unincorporated areas), which are comprised of approximately 2,650 square miles (approximately 65 percent of the total land area of Los Angeles County) as identified in Figure 1, Map of Unincorporated Los Angeles County.¹ Los Angeles County is geographically diverse. The unincorporated areas in the northern portion of the County are covered by large amounts of sparsely populated land, and include the Angeles National Forest, and parts of the Los Padres National Forest and the Mojave Desert. In the western portion of Los Angeles County, the unincorporated areas include Marina del Rey and the Santa Monica Mountains. The unincorporated areas in the southern portion of Los Angeles County consist of many non-contiguous land areas, which are often referred to as the County’s “unincorporated urban islands” including Hacienda Heights, Rowland Heights, and unincorporated areas in the San Gabriel Valley.

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code § 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The Los Angeles County CAP update began in the summer of 2019. The analysis of potential emission reductions began at the end of 2019 along with the initial drafting of an Initial Study. During this time, the tribal consultation process required by Assembly Bill 52 (AB 52) (Public Resource Code § 21080.3.1 et seq.) began.

On November 13, 2019, five California Native American Tribes were notified via U.S. Mail of the CAP update in compliance with AB 52. None of the tribes notified subsequently responded in writing or otherwise requested AB 52 consultation. Receiving no responses, the AB 52 tribal consultation process was completed and concluded in December of 2019.

¹ The Los Angeles County, 2015. Los Angeles County General Plan. Available online: <https://planning.lacounty.gov/generalplan>. Adopted October 6, 2015.



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SOURCE: Los Angeles County Climate Action Plan
March 2020 Public Review Draft

Los Angeles County 2045 Climate Action Plan (2045 CAP)

Figure 1
Map of Unincorporated Los Angeles County



Revised 04/27/20

Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

Los Angeles County has approval authority over the Draft 2045 CAP. Approval from other public agencies is not required. The County would certify the Final Environmental Impact Report (EIR), approve the General Plan Amendment, and adopt the Draft 2045 CAP.

Reviewing Agencies:

Responsible Agencies

- None
- Regional Water Quality Control Board:
 - Los Angeles Region
 - / Lahontan Region
- Coastal Commission
- Army Corps of Engineers
- LAFCO

Special Reviewing Agencies

- None
- Santa Monica Mountains Conservancy
- National Parks
- National Forest
- Edwards Air Force Base
- Resource Conservation District of Santa Monica Mountains Area
-

Regional Significance

- None
- SCAG Criteria
- Air Quality
- Water Resources
- Santa Monica Mtns. Area
-

Trustee Agencies

- None
- State Dept. of Fish and Wildlife
- State Dept. of Parks and Recreation
- State Lands Commission
- University of California (Natural Land and Water Reserves System)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially significant impacts affected by this project.

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture/Forestry | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Transportation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use/Planning | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities/Services |
| <input type="checkbox"/> Energy | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Population/Housing | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

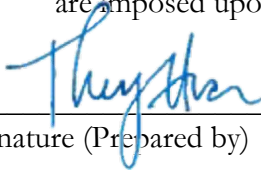
DETERMINATION: (To be completed by the Lead Department.)

On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature (Prepared by)

December 22, 2021

Date



Signature (Approved by)

December 22, 2021

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Department cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the Lead Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 7) The explanation of each issue should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significant. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

1. AESTHETICS

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

Los Angeles County is a large region with a diverse visual setting that includes both built and natural environments. Natural environments in the region include the coastline, beaches, foothills, mountains, ridgelines, and deserts. The urban and built environments within the County include industrial, commercial, residential, office, institutional, and public land uses (LA County 2015). Topography in the region such as the San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, and Puente Hills shape the topography within the region and create distinct communities with varying aesthetic character. These landforms, along with the coastline, define the scenic character of the region. The General Plan does not identify specific scenic vistas for the purpose of conservation purposes but does identify scenic highways and corridors, hillsides, viewsheds, and ridgelines as important scenic resources (LA County 2015). While there are no designated scenic vistas in the County, the combination of the wide LA Basin, foothills, and mountains allows for long range views of the LA Basin, the coastline, desert, and mountains from a variety of informal viewing locations.

The Draft 2045 CAP would be a policy document that does not include specific projects that could have a direct, adverse effect on scenic vistas. However, projects implementing Draft 2045 CAP measures could alter views of scenic vistas. Impacts could include short-term, temporary visual impacts from construction or long-term impacts if implementing projects were to introduce new forms or buildings with height, forms, or colors that could create contrast with existing conditions. Many of the projects that would implement the Draft 2045 CAP measures would involve retrofitting existing buildings, development along existing transit areas, or infill projects in urban locations that are already developed. These types of projects are not expected to significantly impact views from scenic vistas as they would be located in developed areas, would be likely to blend in with surrounding development, and would not be likely to create changes in visual quality that would be visible from a scenic vista or that would significantly interrupt views available from scenic vistas. Other potential projects promoted by Draft 2045 CAP Strategies could include composting facilities, renewable energy generation facilities, or water recycling facilities which could be located in more rural areas of the County and, depending on the design and location, create a greater level of visual contrast compared with existing conditions.

The Draft 2045 CAP would promote the development of rooftop solar and could incentivize the development of small-scale or utility-scale solar projects. Rooftop photovoltaic panels generally do not significantly alter rooflines or create large features that could be visible from the street level. From elevated viewing locations, rooftop solar panels may be visible. The form of solar panels is likely to blend in with existing rooflines and development. Therefore, the form and line created by rooftop solar panels is not likely to contrast with existing visual conditions to an extent that it would degrade views from scenic vistas. Depending on the angle of the sun, reflection off of solar panels may be visible from elevated locations at certain times of the day. However, solar panels are generally considered less reflective than water, glass, or metals used in residential and commercial construction (Shields 2010). Therefore, the reflection from rooftop solar panels is not likely to create a significant amount of contrast from scenic vistas compared to the reflection from existing development. Both small-scale

and utility-scale solar energy generation projects would be required to comply with the Renewable Energy Ordinance (REO), which regulates ground-mounted solar projects to address community concerns and minimize environmental impacts. The REO requires that any ground-mounted solar project obtain a Minor Conditional Use Permit or Conditional Use Permit. Both permits require that ground-mounted solar be analyzed for negative visual impacts and the potential for the facility to impact the viewshed (LA County Office of the County Counsel, 2016). Compliance with the REO and the enforcement of conditions listed as part of the REO would ensure that the potential for small-scale and utility-scale solar energy generation projects to impact visual resources would be minimized.

Any proposed development would be required to comply with the sections of the County Code, which regulate the appearance and siting of physical developments such as the Hillside Management Areas Ordinance and other portions of the code which regulate modification of scenic resources and the visual quality of new development. Projects requiring a Conditional Use Permit would have to meet development standards of the County Code. Additionally, components of the County Code that relate to the protection of Hillside Management Areas would ensure that the scenic character of ridgelines and hillsides would be preserved. As most of the scenic vistas in LA County are available from hillsides and ridgelines, compliance with the Hillside Management Areas Ordinance would ensure that visual impacts from scenic vistas would be reduced. Projects promoted by the Draft 2045 CAP also would be required to comply with the following policies of the General Plan which are intended to protect visual quality and prevent degradation of scenic vistas:

- Policy C/NR 13.1:** Protect scenic resources through land use regulations that mitigate development impacts.
- Policy C/NR 13.2:** Protect ridgelines from incompatible development that diminishes their scenic value.
- Policy C/NR 13.4:** Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.
- Policy C/NR 13.6:** Prohibit outdoor advertising and billboards along scenic routes, corridors, waterways, and other scenic areas.
- Policy C/NR 13.8:** Manage development in HMAs to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.
- Policy LU 10.2:** Design development adjacent to natural features in a sensitive manner to complement the natural environment.
- Policy LU 10.3** Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.
- Policy LU 10.5:** Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction
- Policy LU 10.10:** Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.
Therefore, projects implementing the Draft 2045 CAP measures would be

evaluated for project-level compliance with existing requirements and environmental regulations.

Furthermore, the Draft 2045 CAP includes Measure A1 that encourages the preservation of agricultural and forest lands and Measure A3 that promotes the expansion of the County's tree canopy and green spaces. These policies would preserve existing open spaces which contribute to the visual quality of scenic vistas and would result in a beneficial impact. Additionally, Measure T3 encourages the expansion of bicycle and pedestrian networks which could result in expanding the number and accessibility of publicly accessible scenic vistas, resulting in a beneficial impact.

The compliance of future projects with the General Plan and County Code would reduce the potential impact of future projects on scenic vistas. Additionally, subsequent projects requiring discretionary approval would undergo project-level CEQA review. The potential for any project to cause or contribute to the degradation of scenic vistas would be evaluated through that analysis and mitigation, if necessary, to reduce any significant impacts would be incorporated. As a result of requisite consistency with the General Plan and compliance with local ordinances, potential impacts of the Draft 2045 CAP on scenic vistas are considered less than significant. Accordingly, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

b) Be visible from or obstruct views from a regional riding, hiking, or multi-use trail?

A wide variety of trail types are found throughout the County, including multiuse trails that are accessible to pedestrians, equestrians, and mountain bikers. The highest concentration of trails in the County existing within the Santa Monica Mountains, near the foothills of the San Gabriel Mountains, and in the eastern areas of the county near Lancaster and Palmdale (LA County 2015).

As described above, the Draft 2045 CAP could promote projects that result in visual changes that are visible from regional trails or scenic vistas. Some of the Draft 2045 CAP strategies such as Strategy 4, Strategy 5, and Strategy 8 would include measures that would require retrofits to existing buildings in order to increase energy efficiency, and reduce water consumption. Measure E2 would encourage the transition of existing buildings to all-electric and RNG and Measure E7 would encourage improving the energy efficiency of existing buildings. These types of building retrofits would not be expected to result in changes to the mass, height, or color of buildings or other changes that could create visual change visible from regional trails. While these types of projects would not result in significant visual impacts, some projects could result in more noticeable visual contrast and changes, especially if projects are located in more rural areas of the County such as solar projects proposed in the Antelope Valley. As evaluated under criterion a), future projects would be required to comply with General Plan policies (identified above) and the County Code, which includes components to protect visual quality and resources such as the Hillside Management Areas Ordinance which protects views accessible from hills and ridgelines. Additionally, as described under criterion a), solar energy generation projects would be required to comply with the REO, which includes conditions to reduce the visual impacts of solar projects and would require that a site-specific analysis of the potential for visual impacts be conducted. Furthermore, future projects would be required to undergo project-specific environmental review which would evaluate the potential for a project to affect views from regional trails and mitigate any significant impacts. For these reasons, impacts of the Draft 2045 CAP on views from regional trails would be less than significant. Accordingly, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are three adopted scenic highways within the Project Area: Angeles Crest Highway Route-2, from 2.7 miles north of I-210 to the San Bernardino County line; Mulholland Highway (two sections), from SR-1 to Kanan Dume Road, and from west of Cornell Road to east of Las Virgenes Road; and Malibu Canyon–Las Virgenes Highway, from SR-1 to Lost Hills Road. There are also eight highways within unincorporated LA County that are eligible for designation (LA County 2015; Caltrans 2021).

As disclosed above, the Draft 2045 CAP could promote projects that would result in visual contrast or changes during the construction of projects or by creating new structures that would create contrast compared to existing visual conditions. These projects could occur near designated scenic highways and could, depending on the location and design of the projects, result in changes to the visual resources visible along a scenic highway such as trees, rock outcroppings or historic buildings. Most projects that would be encouraged by the Draft 2045 CAP would involve modifications to existing buildings or would be located in areas that are already developed and are not as likely to be located near scenic resources such as rock outcroppings or trees. These projects would not be likely to damage scenic resources. Projects that would involve new development have a greater potential to impact scenic resources visible from a scenic highway. However, such projects are likely to be spread out within the County and located in areas that are already urbanized and developed and not located near scenic resources such as rock outcropping or trees. These projects are not likely to be located near significant scenic resources that could be altered by projects implementing the Draft 2045 CAP. Therefore, projects developed to implement the measures of the Draft 2045 CAP are not likely to substantially degrade scenic resources visible from a scenic highway.

Additionally, any future development proposed to implement the measures of the Draft 2045 CAP would be required to comply with policies in the General Plan (identified above), which are intended to protect scenic resources, protect ridgelines and hillsides, prohibit advertising along scenic routes, protect historical resources, and support the preservation of historic buildings. Future projects also would be required to comply with elements of the County Code, including elements to protect visual quality and resources such as the Hillside Management Areas Ordinance (which protects views accessible from hills and ridgelines) and the Mills Act Program (which is designed to protect historical properties). Future projects encouraged by the Draft 2045 CAP would be subject to project-level CEQA review which would evaluate the potential for the project to impact scenic resources visible from a scenic highway and apply mitigation to address significant impacts if necessary. As a result, the Draft 2045 CAP’s impacts on scenic resources visible from a designated scenic highway are considered less than significant. Accordingly, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

d) Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality? (Public views are those that are experienced from a publicly accessible vantage point)

The Draft 2045 CAP would be a policy document that would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly result in new or expanded development. The

Draft 2045 CAP includes measures that would promote the retrofitting of buildings to include water and energy efficiency upgrades. These types of retrofits and modifications to existing buildings are not expected to create significant changes in visual character that would be visible from publicly accessible locations. The Draft 2045 CAP also includes measures that would incentivize mixed use developments, infill developments along transit-oriented areas, and could encourage the development of projects to reach the water recycling, waste management, and energy goals identified in the Draft 2045 CAP. These projects could include compost processing facilities, renewable energy generation facilities, or water recycling facilities. These projects are likely to be located in developed areas. However, some projects such as solar energy generation projects or composting facilities, could be located in rural areas of the County where the visual contrast created by implementing projects would be greater.

Each of these projects would be required to comply with the County Code, which includes provisions to regulate height limits, setbacks, bulk etc. and apply development standards appropriate to each zone. The County Code also includes specific ordinances to protect the visual quality of hillsides management areas and ridgelines. Future projects would also be required to be consistent with policies of the General Plan intended to protect overall visual quality and scenic resources. Overall, most projects resulting from implementation of the Draft 2045 CAP are expected to be located in areas that feature existing urban development. The introduction of higher density development, mixed uses, incorporation of rooftop solar, adjustment of landscaping to drought tolerant plants etc. are expected to result in small adjustments to community character and visual appearance. Retrofits to existing buildings to incorporate water and energy efficiency measures would likely involve changes to the interior of building structures and would not be visible from publicly accessible viewpoints. The potential for utility-scale or other sized solar energy generation projects to be proposed in more rural areas such as the Antelope Valley would continue to be analyzed on a project-specific basis for purposes of CEQA.

Other future development projects implementing the Draft 2045 CAP measures also would be evaluated on an individual basis once details are known. Individual future development projects supported by Draft 2045 CAP measures would be required to undergo project-level CEQA review and disclose any potential impacts related to aesthetics and provide mitigation of any significant impacts, if necessary. The Draft 2045 CAP does not include specific proposed development, and it would be speculative to guess where any specific future development might be proposed in furtherance of Draft 2045 CAP goals. For the reasons discussed here and in the preceding two paragraphs, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?

Shade and shadow could be created if buildings or structures block direct sunlight from adjacent properties potentially affecting the users or occupants of adjacent land uses. Shade and shadow can be influenced by the time of day, season, weather, height and bulk of building, spacing, topography and other factors. Shade can result in positive effects such as cooling or can result in negative effects such as the loss of natural light.

The Draft 2045 CAP could result in the development of projects such as mixed use or infill developments, building retrofits, the development of facilities such as composting facilities, water recycling facilities and solar energy generation facilities. Depending on the location and design of these projects, they have the potential to create shade, shadows, daytime glare, and nighttime lighting. Nighttime lighting would mostly be limited to lighting from infill and mixed-use projects. These projects could be located in more urbanized areas developed with considerable existing sources of nighttime lighting. Therefore, nighttime lighting resulting from any such projects would not create a significant contrast compared to existing conditions. The Draft 2045 CAP would

encourage the installation of rooftop solar projects. Rooftop solar would generally be unnoticeable from the ground level; however, reflection created from solar panels could be seen from elevated locations. As described under criterion a), above, photovoltaic panels can result in reflection and glare depending on the time of the day, angle of the sun, etc. However, photovoltaic panels are designed to absorb as much light as possible rather than to reflect light. While the panels can result in some reflection or glare, the glare created by photovoltaic panels is generally considered to be less than that created by water or common building materials such as metal or glass (Shields 2010).

The Draft 2045 CAP could also indirectly incentivize the development of solar facilities in rural areas (such as the Antelope Valley), where they could be more visible from roads, trails and other at-grade elevations. Projects located in the Rural Outdoor Lighting District would be required to comply with development requirements and lighting restrictions intended to protect dark skies in rural areas of the County. Compliance with this component of the Zoning Ordinance would reduce the potential for projects located in rural areas to result in a significant lighting impact. Utility-scale solar projects would be required to comply with the REO (described in more detail under criterion a) and to obtain a Conditional Use Permit. The REO requires that utility-scale solar projects include a glare study that evaluates the potential for a solar project to result in glare. The glare study conducted as part of the Conditional Use Permit process would disclose the potential for a proposed utility-scale solar project incentivized by the Draft 2045 CAP to result in a significant impact relating to glare, and would inform County decision-makers' decision of whether to approve the Conditional Use Permit. Therefore, the potential for glare to result from any utility scale solar projects incentivized by the Draft 2045 CAP would be evaluated as part of the Conditional Use Permit process.

Each development encouraged by the Draft 2045 CAP would be subject to the goals and policies within the General Plan and development standards with the County Code related to reducing the impact of glare, light, and shadows on surrounding land uses. This would ensure that each development would be designed in a manner that would not create significant shadow impacts for surrounding land uses.

Development of potential future projects supported by Draft 2045 CAP measures would be evaluated on an individual basis once details are known. Individual proposals facilities supported by CAP measures would be required to undergo project-level CEQA review and disclose any potential impacts related to light, glare, and shadow and provide mitigation of any significant impacts, if necessary. The Draft 2045 CAP does not include any specific proposed facilities or facility locations and it would be speculative to guess where any specific future development might be proposed in furtherance of Draft 2045 CAP goals. For the reasons discussed here and in the preceding three paragraphs, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

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2. AGRICULTURE / FOREST

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

| | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

There is a relatively small quantity of land area located within Los Angeles County that contains designated farmland. Important farmland in the County is located in Antelope Valley, Santa Clarita Valley, the Santa Monica Mountains, and the San Fernando Valley. Approximately 90 percent of the important farmland in the County is located in Antelope Valley. Within unincorporated areas of the County, there are approximately 26,235 acres of prime farmland, farmland of statewide importance, and unique farmland. There are approximately 6,853 acres of farmland of local importance and 205,193 acres of grazing land (Los Angeles County 2014; DOC 2021). The Draft 2045 CAP would be a policy document that would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly convert designated farmland to non-agricultural use.

However, implementation of Draft 2045 CAP GHG reduction measures that involve ground disturbance could, depending on the location, result in the conversion of farmland to non-agricultural use. For most types of development projects that may be proposed in furtherance of Draft 2045 CAP goals, construction is anticipated to occur primarily within developed areas such as parking lots, improvements to existing structures, and urban areas near public transportation. However, other types of new projects encouraged by Draft 2045 CAP measures could occur in previously undeveloped areas such as facilities to increase waste diversion or renewable energy. Measure E1: Procure Zero-Carbon Electricity and Measure E5: Increase Renewable Energy Production could result in the development of photovoltaic solar or other renewable energy generation facilities in undeveloped areas, which development could result in the conversion of farmland to a non-agricultural use. However, when proposals for renewable energy generation facilities are submitted, the County directs would-be developers of such projects to areas that previously have been disturbed (e.g., sites where farming may no longer be viable due to factors such as access to water) and away from actively farmed sites. Further, consistency with General Plan policies included in the Conservation and Natural Resources Element have been adopted to protect agricultural lands would further reduce the likelihood that solar energy-related or other development would result in the conversion of farmland to a non-agricultural use. See, for example, General Plan Policies C/NR 8.1, 8.2 and 8.3 in furtherance of Goal C/NR 8, which protects productive farmland for local food production, open space, public health, and the local economy. (County of Los Angeles 2015) Therefore, conversion of a significant amount of CEQA-defined

Farmland is not likely due to the small amount of designated farmland in the unincorporated areas of the County, discouragement of proposals that could result in such conversion, and the fact that conversion of designated farmland would conflict with General Plan policies and a GHG reduction measure proposed as part of the Draft 2045 CAP (described below). Impacts are considered to be less than significant.

Development of potential future projects supported by Draft 2045 CAP measures would be evaluated on an individual basis once details are known. Individual proposals for renewable energy generation facilities or other facilities supported by Draft 2045 CAP measures would be required to undergo project-level CEQA review to disclose potential significant impacts, if any, related to the conversion of designated farmland and to mitigate any such significant impacts, if feasible. Therefore, this consideration will not be evaluated further in the EIR.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract?

Title 22 (Zoning Code) Chapter 22.16 (Agricultural, Open Space, Resort and Recreation, and Watershed Zones) establishes the Light Agricultural Zone (A-1) and Heavy Agricultural Zone (A-2) which allow for a comprehensive range of agricultural uses in areas particularly suited for agricultural activities. As described within Section 22.16.100 (Purpose), permitted uses are intended to encourage agricultural activities and other such uses required for, or desired by, the inhabitants of the community. An area so zoned may provide the land necessary to permit low-density single-family residential development, outdoor recreational uses, and public and institutional facilities. For example, some older suburban communities particularly in the East San Gabriel Valley maintain agricultural zoning. Existing communities like these could potentially be located in proximity to high quality transit areas (HQTAs) and, as such, may experience rezoning as a part of community plan updates to implement the Housing Element. Nonetheless, any such rezoning would result from Housing Element implementation, not from implementation of the Draft 2045 CAP.

The Zoning Code implements the General Plan policies via detailed development regulations. The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions. The Draft 2045 CAP would not propose changes to the General Plan Land Use Designations that could in turn require changes to zoning nor does it include specific projects that could conflict with existing zoning. Further, the Draft 2045 CAP includes Measure A1: Conserve Agricultural and Working Lands, Forest Lands and Wildlands to help preserve existing agricultural lands. Conserving and restoring agricultural and forest lands keeps carbon in the ground and provides a multitude of benefits from maintaining biodiversity in Significant Ecological Areas (SEA) to preserving the character of the unincorporated County's rural areas. Draft 2045 CAP Action A1.1 calls for the creation of agricultural easements to preserve agricultural lands, working lands, rangelands, and forestlands. Draft 2045 CAP Action A1.1 would create an agricultural easement program; create necessary ordinance to support the preservation of these lands; identify areas for easements; and develop plan for creating easements. Therefore, adoption of the Draft 2045 CAP would not directly or indirectly conflict with Agricultural Zoning as a result of future energy, housing, or other projects proposed in furtherance of the Draft 2045 CAP.

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners in order to restrict specific parcels of land to agricultural or related open space use. The only Williamson Act contracts in effect in Los Angeles County are for land on Santa Catalina Island (LA County 2015). The Draft 2045 CAP includes Measure A1 to help conserve agricultural lands which would be consistent with the purpose of the Williamson Act to restrict specific parcels of land to agricultural or related open space use. Therefore, no direct impacts related to conflicts with Williamson Act contracts would result with adoption of the Draft 2045 CAP. Indirect impacts resulting from

solar energy generation, housing, or other projects that could be proposed in the future in furtherance of the Draft 2045 CAP also would not be expected to result in conflicts with Williamson Act contracts because of the small amount of land in the unincorporated areas of the County that are or could be subject to a Williamson Act contract, the County’s discouragement of proposals that could result in impacts to productive agricultural lands, and the fact that such conflicts would not be consistent with General Plan policies promoting Goal C/NR 8, which protects productive farmland for local food production, open space, public health, and the local economy.

For the reasons discussed above, potential impacts relating to conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract would be less than significant. Therefore, this consideration will not be evaluated further in the EIR.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))?

Forest land is defined as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits” (Public Resources Code § 12220[g]). Timberland is defined as “land...which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees” (Public Resources Code § 4526).

The Angeles National Forest and the Los Padres National Forest encompass approximately 650,000 acres of land within unincorporated Los Angeles County. These forests occupy a large portion of Los Angeles County and support oak woodlands, black walnut, grey pine, and other native tree species (Los Angeles County 2014; California Wilderness Coalition 2020; DOC 2021). For example, 11 of California’s 20 species of native oaks are found in the Los Padres National Forest, including blue oak, valley oak, and California black oak; California shrub oak species, including leather oak and Nuttall’s (“coastal”) scrub oak also are found in the Los Padres National Forest (Los Padres ForestWatch, Inc. 2013).

The Draft 2045 CAP would not propose changes to the General Plan Land Use Designations and includes Measure A1 to conserve forestlands. Further, as a general matter, forest land would not be suitable for the implementation of actions in furtherance of the Draft 2045 CAP. For example, solar energy generation requires access to sun; forested areas do not provide that resource and would not be deforested to serve a solar energy generation use (which itself would be counter to another Draft 2045 CAP implementing action). Additionally, private in-holdings within the forests have a large number of owners, with each not necessarily owning large contiguous parcels that would be conducive to development of solar energy generation. The County has no existing zoning specific to forest use or timberland, and does not have land use authority to approve development proposed in national forests like the Angeles National Forest and the Los Padres National Forest. Instead, the U.S. Forest Service, which provides land use oversight in those locations, may authorize uses in national forests that benefit the general public and protect public and natural resources values. The construction of new private residences in national forest lands is prohibited by Forest Reserve Act of 1891, and Forest Service land usually is not made available if the overall needs of an individual project proponent or business can be met on nonfederal lands (U.S. Forest Service 2013). The County is not aware of any applications for the development of a solar energy generation project on Angeles National Forest or

Los Padres National Forest lands and whether or not the U.S. Forest Service would allow such development in the future is speculative. Therefore, the Draft 2045 CAP would not cause a significant impact relating to conflicts with existing zoning of timberland or forest land.

Individual proposals for renewable energy generation facilities or other facilities supported by Draft 2045 CAP measures would be required to undergo project-level CEQA review, and to disclose and mitigate any potential significant impacts related to the conversion of forest or timberland. This includes project compliance with Draft 2045 CAP Measure A1 (if approved) to conserve forest lands. Therefore, for the reasons discussed in the preceding two paragraphs, this consideration will not be evaluated further in the EIR.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

The Draft 2045 CAP does not propose changes to the General Plan Land Use Designations and includes Measure A1 to conserve forestlands. As described above under criterion c) forest land located in unincorporated areas of the County (i.e., in the Angeles National Forest and Los Padres National Forest) would not directly be affected by adoption of the Draft 2045 CAP and would not likely be developed in the future with projects proposed in furtherance of Draft 2045 CAP goals. Additionally, the GHG reduction measures proposed as part of the Draft 2045 CAP that could result in construction impacts would be focused primarily in urbanized areas of the unincorporated County and so would be unlikely to impact forest land. The Antelope Valley is not urbanized, and solar energy generation facilities are common there. Consistent with past practice, additional solar energy generation projects could be proposed in the Antelope Valley. However, because resources meeting the definition of forest land (Public Resources Code § 12220[g]) are not located there, potential future solar energy generation projects that may be proposed in the Antelope Valley in furtherance of Draft 2045 CAP goals would not cause a significant impact in this regard. Additionally, as described above, Draft 2045 CAP Measure A1 is intended to conserve agricultural and working lands, forest lands and wildlands. Therefore, impacts would be less than significant.

Individual proposals for projects supported by Draft 2045 CAP measures would be required to undergo project-level CEQA review, and to disclose and mitigate any potential significant impacts related to the conversion of forest land. This includes project compliance with Draft 2045 CAP measure A1 to conserve forest lands. Therefore, for the reasons discussed in the preceding paragraph, this consideration will not be evaluated further in the EIR.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The Draft 2045 CAP would be a policy document that would support development already allowed under the General Plan land use designations with the 2021-2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly convert designated farmland to non-agricultural use or convert forest land to non-forest use. In general, construction associated with Draft 2045 CAP measures is anticipated to occur primarily within existing developed areas. As discussed in the context of criterion d), potential future solar energy generation projects could be proposed in the Antelope Valley, but would not cause a potential significant impact associated with the conversion of forest land. The Draft 2045 CAP proposes measures that support the efficient use of urban land, transit-oriented projects, renewable energy use, and facilities to increase waste diversion among others. The Draft 2045 CAP also includes Measure A1 to conserve agricultural and working lands, forest lands and wildlands. Therefore, potential impacts related to the conversion of designated farmland or forest land would be less than significant.

Individual proposals for projects supported by Draft 2045 CAP measures would be required to undergo project-level CEQA review, and to disclose and mitigate any potential significant impacts related to the conversion of farmlands and/or forestland. The Draft 2045 CAP does not include any specific proposed facilities or facility locations and it would be speculative to guess where any such developments would be proposed or located. Therefore, for these reasons and those summarized in preceding paragraphs, this consideration will not be evaluated further in the EIR.

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3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|--------------------------|
| Would the project: | | | | |
| a) Conflict with or obstruct implementation of applicable air quality plans of either the Antelope Valley AQMD (AVAQMD) or the South Coast AQMD (SCAQMD)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The AVAQMD and SCAQMD, together with the Southern California Association of Governments (SCAG), are responsible for formulating and implementing air pollution control strategies throughout the County. The AVAQMD is responsible for regulating stationary sources of air pollution in the northern desert portion of the County, while the SCAQMD is responsible for regulating stationary sources of air pollution in the non-desert portion of the County. The AVAQMD 2017 Federal 75 ppb Ozone Attainment Plan includes planning assumptions regarding population, vehicle activity and industrial activity that addresses ozone precursor-producing activities within the AVAQMD to demonstrate attainment of the 75 parts per billion Federal 8-hour ozone standard by July 2027. The SCAQMD 2016 Air Quality Management Plan (AQMP) contains measures to meet the Federal 24-hour standards for particulate matter less than 2.5 microns in diameter (PM 2.5) by 2019, annual PM2.5 standards by 2025, and 1-hour ozone (O3) standards by 2022.

The Draft 2045 CAP would be a policy document, the approval of which would not directly result in the construction or operation of new land uses that may be developed within the County and would not result in direct conflicts with the AQMP. However, indirect impacts associated with implementation of proposed Strategies, Measures, and Actions could result. Indirect pollutant emissions resulting from the construction and operation of future development within the County under the Draft 2045 CAP would also have the potential to affect implementation of the AQMP. Therefore, this topic will be analyzed further in the EIR.

| | | | | |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|

Los Angeles County is characterized by relatively poor air quality. State and Federal air quality standards often are exceeded in portions of the County. The County currently is designated as non-attainment of Federal and/or State air quality standards for O₃, particulate matter less than 10 microns in diameter (PM 10), and for PM 2.5. The Draft 2045 CAP would result in increased indirect air emissions associated with implementation of proposed Strategies, Measures, and Actions. As such, implementation of the Draft 2045 CAP could have the potential to contribute to cumulatively significant air quality impacts in combination with other existing and future emission sources in the Project area. Indirect pollutant emissions resulting from the construction and operation of future development within the County under the Draft 2045 CAP also would have the potential to affect implementation of the AQMP. Therefore, this topic will be analyzed further in the EIR.

c) Expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors include children, elderly people, people with asthma, and others who are at a heightened risk of negative health outcomes due to exposure to air pollution. The locations where these sensitive receptors congregate are considered sensitive receptor locations. Existing sensitive receptor locations in the County include, but are not limited to, residential communities, schools and school yards, day care centers, parks and playgrounds, hospitals and medical facilities. Implementation of the Draft 2045 CAP could increase air emissions above current levels, including potentially toxic air contaminants (TACs), thereby potentially affecting nearby sensitive receptors. Therefore, this topic will be analyzed further in the EIR.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Other emissions, such as those leading to odors, typically are associated with industrial developments involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. Odors also are associated with such uses as sewage treatment facilities and landfills. The Draft 2045 CAP would be a policy document, the approval of which would not directly result in the generation of other emissions, such as those leading to odors. Indirect pollutant emissions, such as odorous emissions, could result from the construction and operation of future development within the County under the Draft 2045 CAP. Common sources of odors from development within a community may include the use of volatile organic compound (VOC)-containing architectural coatings and solvents, municipal solid waste collection areas, and transfer stations and material recovery facility operations. The AVAQMD and SCAQMD have adopted rules for controlling nuisance emissions, such as those leading to odors, from community sources. AVAQMD Rule 402 and SCAQMD Rule 402 both prohibit emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. The AVAQMD and SCAQMD both regulate the VOC content of architectural coatings and solvents via several adopted rules including Rules 442, 1107, 1113 and 1171, as numbered by both air districts. The SCAQMD, which has jurisdiction over an area with a substantially greater population density than the AVAQMD, has adopted additional source-specific rules that assist in controlling odors including Rule 410 for controlling odors from transfer stations and material recovery facilities and Rule 1138 for controlling emissions from restaurant cooking operations. While the AVAQMD has no rules identical to SCAQMD Rules 410 and 1138, potential odorous emissions would still be subject to the overall nuisance requirements in Rule 402. Future development within the County under the Draft 2045 CAP would be required to comply with all applicable regulatory requirements for controlling emissions such as those leading to odors. Furthermore, the Draft 2045 CAP would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element and no changes to land use designations are proposed. Thus, the Draft 2045 CAP would not increase exposure of people to other emissions such as those leading to odors, and would not have the potential to generate odors that affect a substantial number of people. Impacts from adoption of the Draft 2045 CAP would be less than significant and this issue will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

4. BIOLOGICAL RESOURCES

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?**

| | | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|

Species and habitats identified by CDFW as candidate, sensitive, or special status that may be present in unincorporated areas of the County include, for example, Swainson’s hawk (*Buteo swainsoni*). Species and habitats identified by USFWS that may be present include, for example, arroyo toad (*Anaxyrus californicus*). There is a potential for any of these species or their habitats to be affected by the construction of one or more of the projects undertaken to implement the Draft 2045 CAP.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county-wide GHG emissions and would support development already allowed under General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Individual projects implementing Draft 2045 CAP measures are anticipated to be located primarily within the urban environments and on disturbed areas with existing infrastructure. These include a majority of the CAP measures promoting transportation options (Measure T1, Measure T4, Measure T6, Measure T9, Measure T10, Measure T14), institutionalizing low-carbon transportation (Measure T19, Measure T22, Measure T24), decarbonizing building energy use (Measure SE3, Measure SE6, Measure SE8), promoting water conservation (Measure SE9, Measure SE10, Measure SE 12, Measure SE13), and increasing renewable energy (Measure SE18, Measure SE19). The implementation of Draft 2045 CAP measures would create a safer bikeway network (Measure T6), would promote shade for pedestrians to support alternative modes of transportation (Measures T15 and T17), support the preservation of restored forest lands (Measure A1), and increasing urban forests (Measure A2, Measure A3), which would reduce pressures on vacant and undeveloped land.

However, some of the Draft 2045 CAP measures (Measure T11, Measure T18, Measure SE11, Measure SE15, Measure SE16, Measure SE17, Measure W5) would promote implementation projects including transit routes, electric vehicle (EV) chargers, water recycling systems, solar energy generation facilities, and waste management facilities. Depending on the location of the implementing projects, construction could result in impacts to candidate, sensitive, or special status species, or their habitats. Future individual projects to implement the measures proposed in the Draft 2045 CAP would undergo site-specific review and CEQA analysis to analyze and mitigate potential significant impacts to candidate, sensitive, or special status species and their habitats. Further, implementation of individual projects implementing Draft 2045 CAP measures would be subject to policies included in the General Plan, as well as other local, state, and federal regulations regarding candidate, sensitive, or special status species. Impacts to candidate, sensitive, or special status species are considered to be potentially significant and will be further evaluated in the EIR.

b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS?

Sensitive natural communities present in unincorporated LA County include southern riparian forest and juniper woodland. There is a potential for any of these sensitive natural communities to be affected by the construction of one or more of the projects undertaken to implement the Draft 2045 CAP.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Individual projects implementing Draft 2045 CAP measures are anticipated to be located primarily within the urban environments and on disturbed areas with existing infrastructure. These include a majority of the Draft 2045 CAP measures promoting transportation options (Measure T1, Measure T4, Measure T6, Measure T9, Measure T10, Measure T14), institutionalizing low-carbon transportation (Measure T19, Measure T22, Measure T24), decarbonizing building energy use (Measure SE3, Measure SE6, Measure SE8), promoting water conservation (Measure SE9, Measure SE10, Measure SE 12, Measure SE13), and increasing renewable energy (Measure SE18, Measure SE19).

However, some of the Draft 2045 CAP measures (Measure T11, Measure T18, Measure SE11, Measure SE15, Measure SE16, Measure SE17, Measure W5) would promote implementation projects including transit routes, EV chargers, water recycling systems, solar energy generation facilities, and waste management facilities. Depending on the location of the implementing projects, construction could result in impacts to sensitive natural communities. Future individual projects to implement the measures proposed in the Draft 2045 CAP would undergo site specific review and CEQA review to analyze and mitigate potential significant impacts to sensitive natural communities. Further, the individual projects implementing Draft 2045 CAP measures also would be subject to policies included in the General Plan, as well as other local, state, and federal regulations regarding sensitive natural communities. Impacts to sensitive natural communities are considered to be potentially significant and will be further evaluated in the EIR.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

Protected wetlands are present in unincorporated areas of the County. For example, marshes may be found in San Fernando Valley, vernal pools may be found in Simi Valley, and coastal wetlands may be found in Topanga Lagoon and Arroyo Sequit. There is a potential for any of these species or corridors to be affected by the construction of one or more of the projects undertaken to implement the Draft 2045 CAP.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Individual projects implementing Draft 2045 CAP measures are anticipated to be located primarily within the urban environment and on disturbed areas with existing infrastructure. These include a majority of the Draft 2045 CAP measures promoting transportation options (Measure T1, Measure T4, Measure T6, Measure T9, Measure T10, Measure T14), institutionalizing low-carbon transportation (Measure T19, Measure T22, Measure T24), decarbonizing building energy use

(Measure SE3, Measure SE6, Measure SE8), promoting water conservation (Measure SE9, Measure SE10, Measure SE 12, Measure SE13), and increasing renewable energy (Measure SE18, Measure SE19).

However, some of the Draft 2045 CAP measures (Measure T11, Measure T18, Measure SE11, Measure SE15, Measure SE16, Measure SE17, Measure W5) would promote implementation projects including transit routes, EV chargers, water recycling systems, solar energy generation facilities, and waste management facilities. Depending on the location of the implementing projects, construction could result in impacts to wildlife movement, migratory fish or wildlife species corridors, and native wildlife nursery sites. Future individual projects to implement the 2045 CAP Draft 2045 CAP would undergo site specific review and CEQA analysis to identify and mitigate potential significant impacts to wildlife movement, migratory fish or wildlife species corridors, and native wildlife nursery sites. Further, implementation of individual projects implementing Draft 2045 CAP measures also would be subject to policies included in the General Plan, as well as other local, state, and federal regulations regarding wildlife movement, migratory fish or wildlife species corridors, and native wildlife nursery sites. For example, individual projects implementing Draft 2045 CAP measures would be subject to the Migratory Bird Treaty Act, which prohibits taking, killing, possessing, transporting, and importing of migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. Impacts to wildlife movement, migratory fish or wildlife species corridors, and native wildlife nursery sites are considered to be potentially significant and will be further evaluated in the EIR.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua, southern California black walnut, etc.)?

Oak woodlands may be found in unincorporated areas of the county including, but not limited to, the Santa Monica Mountains and areas around the Angeles National Forest. Other unique native woodlands (such as juniper and southern California black walnut) also may be found there. Joshua woodland can be found in northern Los Angeles County throughout the Antelope Valley. There is a potential for any of these unique native woodlands to be affected by the construction of one or more of the projects undertaken to implement the Draft 2045 CAP.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Individual projects implementing Draft 2045 CAP measures are anticipated to be located primarily within the urban environment and on disturbed areas with existing infrastructure. These include a majority of the Draft 2045 CAP measures promoting transportation options (Measure T1, Measure T4, Measure T6, Measure T9, Measure T10, Measure T14), institutionalizing low-carbon transportation (Measure T19, Measure T22, Measure T24), decarbonizing building energy use (Measure SE3, Measure SE6, Measure SE8), promoting water conservation (Measure SE9, Measure SE10, Measure SE 12, Measure SE13), and increasing renewable energy (Measure SE18, Measure SE19). The Draft 2045 CAP measures would support the preservation of restored forest lands (Measure A1), and increase urban forests (Measure A2, Measure A3) which would protect existing oak woodland and other unique woodlands as well as increase canopy cover such as oak woodland within the County.

However, some of the Draft 2045 CAP measures (Measure T11, Measure T18, Measure SE11, Measure SE15, Measure SE16, Measure SE17, Measure W5) would promote implementation projects including transit routes,

EV chargers, water recycling systems, solar energy generation facilities, and waste management facilities. Depending on the location of the implementing projects, construction could result in impacts to oak woodlands or other unique native woodlands. Future individual projects implementing Draft 2045 CAP measures also would be subject to policies included in the General Plan, as well as other state and federal laws and regulations regarding conversion of oak woodlands or other unique native woodlands, such as the state's Oak Woodlands Protection Act, which prohibits a person from removing from an oak woodland (as defined) or specified oak trees, unless an oak removal plan and oak removal permit application for the oak tree removal has been submitted to and approved by the Director of Fish and Wildlife. The County administers the Oak Woodlands Plan and other biological resource protection ordinances which similarly prohibits a person from removing or converting native woodlands unless a discretionary permit application has been submitted to and approved by the Director of Regional Planning. Potential impacts relating to the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174) are analyzed below. Impacts to oak woodlands or other unique native woodlands are considered to be potentially significant and will be further evaluated in the EIR.

f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, Ch. 102), Specific Plans (L.A. County Code, Title 22, Ch. 22.46), Community Standards Districts (L.A. County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (L.A. County General Plan, Figure 9.3)?

Wildflower Reserve Areas are found, but not limited to, the areas in northern Los Angeles County within the Antelope Valley. Significant Ecological Areas (SEA) can be found throughout Los Angeles County. Oaks are widely dispersed throughout the County. Coastal Resource Areas can only be found in three areas (Santa Catalina Island, Marina Del Rey, and Santa Monica Mountain Coastal Zone). There is a potential for Wildflower Reserve Areas, SEAs, oaks, or Coastal Resource Areas to be affected by the construction of one or more of the projects undertaken to implement the Draft 2045 CAP.

The Draft 2045 CAP would be a County-wide policy document intended to reduce GHG emissions. It would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element. Individual projects implementing the Draft 2045 CAP measures are anticipated to be located primarily within the urban environment and on disturbed areas with existing infrastructure. These include a majority of the Draft 2045 CAP measures promoting transportation options (Measure T1, Measure T4, Measure T6, Measure T9, Measure T10, Measure T14), institutionalizing low-carbon transportation (Measure T19, Measure T22, Measure T24), decarbonizing building energy use (Measure SE3, Measure SE6, Measure SE8), promoting water conservation (Measure SE9, Measure SE10, Measure SE 12, Measure SE13), and increasing renewable energy (Measure SE18, Measure SE19).

However, some of the Draft 2045 CAP measures (Measure T11, Measure T18, Measure SE11, Measure SE15, Measure SE16, Measure SE17, Measure W5) would promote implementation projects including transit routes, EV chargers, water recycling systems, solar energy generation facilities, and waste management facilities. Depending on the location of the implementing projects, construction would be required to comply with local

policies or ordinances, such as the General Plan and the County’s Zoning Code, protecting biological resources, such as SEAs and oak trees. Note that the County’s Renewable Energy Ordinance prohibits ground-mounted utility-scale solar facilities in SEAs. Future individual projects to implement the measures proposed in the Draft 2045 CAP would undergo site specific review and CEQA analysis to identify and mitigate potential significant impacts relating to consistency with applicable policies and ordinances protecting biological resources, where avoidance is not attainable. Future individual projects implementing Draft 2045 CAP measures also would be subject to policies included in the General Plan, as well as other local, state, and federal regulations. Impacts to biological resources protected under local policies and ordinances are considered to be less than significant through the County’s discretionary approval for compliance with local ordinances, and this issue will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved state, regional, or local habitat conservation plan?

There are currently no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved state, regional, or local habitat conservation plans in effect in unincorporated Los Angeles County. Therefore, no impact would occur. This consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

5. CULTURAL RESOURCES

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines § 15064.5?

| | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|-------------------------------------|--------------------------|--------------------------|--------------------------|

The Draft 2045 CAP is a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2021 Housing Element. As a policy document, the Draft 2045 CAP itself would not result in direct impacts to historical resources. However, future projects implementing GHG reduction measures contained in the Draft 2045 CAP could involve structural improvements and/or ground disturbing activities that could, depending on their location, result in direct or indirect adverse changes to the significance of historical resources. For example, such changes could result from construction of new solar s, electric vehicle (EV) charging infrastructure (Measure T6), photovoltaic systems (Measure E5), creating a more connected bikeway network (Measure T3), and also tree planting to expand the County’s Tree Canopy (Measure A3). Future projects would be required to comply with existing federal, State, and local regulations that protect historical resources and undergo the County’s discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA. Such projects could nonetheless result in significant impacts to historic architectural resources and/or archaeological resources qualifying as historical resources. Impacts to historical resources are considered to be potentially significant and will be further evaluated in the EIR.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?

| | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|-------------------------------------|--------------------------|--------------------------|--------------------------|

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions. the 2021-2029 Housing Element. As a policy document, the Draft 2045 CAP itself would not result in direct impacts to unique archaeological resources. However, future projects to implement some GHG reduction measures contained in the Draft 2045 CAP could involve ground disturbing activities that could, depending on their location, result in direct or indirect adverse changes to the significance of unique archaeological resources. Future projects would be required to comply with existing federal, State, and local regulations that protect historical resources and undergo the County’s discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA. Such projects could nonetheless result in significant impacts to unique archaeological resources. Impacts to unique archaeological resources are considered to be potentially significant and will be further evaluated in the EIR.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?



Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones; mammals, birds, fish, etc.), invertebrates (animals without backbones; starfish, clams, coral, etc.), and microscopic plants and animals (microfossils), and can include mineralized body parts, body impressions, or footprints and burrows. They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. A significant impact would occur if a project would destroy a unique paleontological resource or site, or a unique geologic feature.

In its “Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources,” the Society of Vertebrate Paleontology (SVP) defines four categories of paleontological potential for rock units: high, low, undetermined, and no potential: **High Potential**, rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources; **Low Potential**, rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule; **Undetermined Potential**, rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment; and **No Potential**, rock units like high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites) that will not preserve fossil resources (SVP, 2010). It is important to note that while paleontological potential as defined above can provide a rough idea of whether subsurface fossils may exist, the uniqueness or significance of a fossil locality is unknown until it is identified to a reasonably precise level (Scott and Springer, 2003). Therefore, any fossil discovery should be treated as potentially unique or significant until determined otherwise by a professional paleontologist.

As indicated by geologic mapping, the surficial geology within the planning area is varied, with a majority of the deposits composed of Holocene, Pleistocene, Pliocene, and Miocene-age sedimentary deposits. Additionally, there are occurrences of Cretaceous, Jurassic, and Triassic-age metamorphic and igneous rocks associated with the San Gabriel and Eastern Santa Monica mountains in the planning area. For areas that are mapped as having Holocene-age deposits at the surface, there may be older, Pleistocene-age deposits at unknown depths within the subsurface (Yerkes & Campbell, 2005).

Among the Pliocene and Miocene-age deposits in the planning area, geologic mapping indicates that deposits associated with the Los Angeles Basin (i.e., San Pedro, Inglewood, Puente, and Fernando formations, and the Topanga Group) are present at the surface, and assumingly, in the subsurface (Yerkes & Campbell, 2005).

Paleontological Sensitivity

Records that are available through the University of California Museum of Paleontology (UCMP) online fossil localities database indicate numerous fossil localities within Los Angeles County. Among the available records, there are 77 vertebrate, 1767 invertebrate, 108 plant, and 271 microfossil localities, several from the deposits that occur in the planning area (UCMP, 2021a).

In general, Holocene-age alluvial deposits are considered to have a low potential to contain significant paleontological resources, based on the recent age of the deposits (SVP, 2010); late Holocene-age deposits (i.e., younger than 5,000 radiocarbon years) have a particularly low potential. Deposits that date to the middle Holocene (i.e., older than 5,000 radiocarbon years) have a potential that increases as the depth into the deposits increases. In general, Pleistocene-age sedimentary deposits are considered to have a high potential to contain significant paleontological resources, as is evident by the numerous fossil discoveries throughout

California (UCMP, 2021; Sub Terra Consulting, 2017)—as well as within Los Angeles County (UCMP, 2021a). The exact transition from Holocene- to Pleistocene-age deposits is not known in the planning area. In summary, the surficial Holocene-age alluvial deposits are considered to have a low potential to contain significant paleontological resources, with the potential increasing to high within the deeper layers of the unit; any Pleistocene-age deposits encountered in the subsurface are considered to have a high potential to encounter significant paleontological resources. Additionally, due to the previous fossil discoveries from within the Pliocene and Miocene-age deposits (UCMP, 2021b) from the County, the formations from this age range would be considered to have a high potential to contain significant paleontological resources as well.

Construction associated with the implementation of most GHG reduction measures could result in ground-disturbing activities that could have the potential to damage or destroy a unique paleontological resource or site or unique geologic feature. However, the specific locations of future projects are not known. Therefore, the specific resources present within a project footprint of construction sites cannot be determined. Factors necessary to identify specific impacts include the design and footprint of a project, and the type and precise location of construction activities. Project-level impacts would be addressed in future site-specific environmental analysis conducted by the County at the time such projects are proposed. Because there could be the potential for adverse changes to paleontological resources due to the construction and operations of future projects, this impact would be potentially significant. Impacts to paleontological resources are considered to be potentially significant and will be further evaluated in the EIR.

d) Disturb any human remains, including those interred outside of dedicated cemeteries?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions. As a policy document, the Draft 2045 CAP itself would not result in disturbance of human remains. However, future projects to implement some GHG reduction measures contained in the Draft 2045 CAP would involve ground disturbing activities that could, depending on their location, result in disturbance of human remains interred outside of a dedicated cemetery. Impacts to human remains are considered to be potentially significant and will be further evaluated in the EIR.

6. ENERGY

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

The Draft 2045 CAP provides an approach to the reduction of GHG emissions and associated co-benefits of reducing energy demand from community activities, including future development under the General Plan. Potential energy reductions provided by proposed Strategies, Measures, and Actions include increases in renewable energy production and improvement of energy efficiency.

The Draft 2045 CAP would be a policy document containing GHG emissions reduction measures and implementation actions to reduce GHG emissions. It does not propose any specific development or other physical changes to the environment and would not facilitate growth beyond what the General Plan would allow. To promote energy conservation, the County has adopted an amended California Green Building Standards Code per Title 31 (Green Building Standards) of the County Code. Therefore, any construction associated with projects undertaken to implement the Draft 2045 CAP would be required to be designed to comply with the performance levels of the California Green Building Standard Code, as amended in Title 31. Likewise, all such projects would be required to comply with the energy standards in the California Energy Code, Part 6 of the California Building Standards Code (Title 24) and the green building standards in Part 11 of Title 24.

Furthermore, the purpose and intended effect of the Draft 2045 CAP is to reduce GHG emissions generated in unincorporated areas of the County to help reduce the effects of climate change, including those emissions generated by energy demand and supply. The Draft 2045 CAP includes strategies, with corresponding implementation measures and actions, that would reduce energy use in buildings and decarbonizing the energy that is used, reduce indoor and outdoor water consumption through ordinances, tiered billing structures, education and outreach and/or promotion of conservation programs, and increasing the supply of energy to communities with zero-carbon or low-carbon electricity through a number of means including solar power generation, distributed or decentralized power generation, energy storage and microgrids, strategic partnerships with the Clean Power Alliance of Southern California and other actions. Specifically, the Draft 2045 CAP aims to reduce electricity use through increasing the efficiency of existing buildings (Measure E7), increasing the use of recycled water which would reduce electricity associated with water conveyance and distribution (Measure E8), and reducing indoor and outdoor water use (Measure E9). Further the Draft 2045 CAP would promote adoption of renewable energy production in both new and existing residential and commercial development (Measure E5), which would decrease grid energy demand and advance the County towards its electrification and zero net energy goals (Measure E3), all of which would support the State's energy efficiency and renewable energy goals.

The Draft 2045 CAP would also include strategies, with corresponding implementation measures and actions, that would reduce vehicle miles traveled, emissions and transportation fuel consumption. The CAP includes transportation strategies, measures and actions that would reduce fuel consumption such as locating

development within High Quality Transit Areas, emphasizing non-motorized travel through the County's Pedestrian Action Plan, Bicycle Master Plan, Active Transportation Plans, and Vision Zero Action Plan and expanding the electric vehicle charging infrastructure, partnering with transit agencies to electrify County bus and shuttle fleets. For example, the Draft 2045 CAP aims to electrify 100 percent of its bus fleet by 2030 (Measure T7), in line with Metro's goal of electrification for its fleet. This would reduce diesel, gasoline, and natural gas consumption from buses and would have the co-benefit of reducing air pollutant and greenhouse gas emissions. Similarly, the Draft 2045 CAP would aim to electrify passenger and heavy-duty vehicles in line with the State's Mobile Source Strategy (Measure T6 and T8), which would reduce diesel, gasoline, and natural gas consumption of vehicles in support of State goals. The Draft 2045 CAPs waste measures (Measure W1 through W3) also would result in greater waste diversion from landfills and decreased waste generation per capita resulting in less fuel consumption from haul trucks to landfills and would generate energy through waste-to-energy conversion systems.

For these reasons, the Draft 2045 CAP would result in no impact regarding wasteful, inefficient, or unnecessary consumption of energy resources. and impacts would be less than significant. Because no impact would result, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

For the reasons explained in the context of criterion a), the Draft 2045 CAP would not cause an impact relating to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. Because no impact would result, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

7. GEOLOGY AND SOILS

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42.**

| | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) prohibits the development of structures for human occupancy across Holocene-active² fault traces. Under this Act, the California Geological Survey (CGS) has established “Zones of Required Investigation” on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as Earthquake Fault Zones (EFZs) and are shown on official maps published by the CGS (CGS 2021). Surface rupture occurs when the ground surface is broken due to a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault.

The California Earthquake Hazards Zone Application (EQ Zapp) is an interactive map available on CGS’s website. The EQ Zapp allows users to view all available earthquake hazard zone data, including earthquake fault, liquefaction, and earthquake-induced landslide zones. According to the EQ Zapp, there are eight EFZs that cross through portions of unincorporated Los Angeles County including the East Montebello, Hollywood, Newport-Inglewood-Rose Canyon, San Andreas, San Gabriel, Santa Monica, Sierra Madre, and Raymond fault zones (CGS 2021).

The Draft 2045 CAP would be a policy document for unincorporated County that does not include the development of specific habitable structures that could be directly impacted by known EFZs. However, projects implementing Draft 2045 CAP measures would require project-specific evaluation once details are known. New projects encouraged by the Draft 2045 CAP measures could include habitable structures within or adjacent to EFZs. However, the construction of any new structure and improvements to certain existing structures in California is subject to the standards and requirements included in the most current versions of the California Building Code (CBC) and the County of Los Angeles Building Code (which is derived from the CBC). In general, the CBC requires that every newly constructed structure (habitable or not) be subject to a geotechnical review (usually a preliminary and final review). The CBC further requires that a fault study be included in the geotechnical review of any new development that is proposed near an active fault.

² Holocene-active faults are faults that have shown evidence of movement within the Holocene Epoch (11,700 years – present)

All new developments would be constructed in accordance with all applicable state and local laws (e.g., Alquist-Priolo Act, CBC, and the County Building Code). EFZs would be identified during the planning process for any new project, and avoided when deciding on the location of new habitable structures. Adherence to project-specific geotechnical recommendations and applicable state and local laws would ensure that any adverse effects due to the presence of a known EFZ would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

ii) Strong seismic ground shaking?

The County is located in an historically seismically active region of California, as is evident by the presence of several Holocene-active faults in the area. The 2014 Working Group on California Earthquake Probabilities³ (WGCEP) concluded that there is a 50 percent probability (approximate) that a magnitude (M_w) 6.7 earthquake or higher could occur in the Los Angeles region before the year 2044⁴, and a 53 percent chance of a M_w 6.7 (or higher) earthquake within the southern portion of the San Andreas fault zone before the year 2044 (Field et al., 2015). As discussed above, there are several faults that transect unincorporated Los Angeles County. The presence of these faults suggests that unincorporated Los Angeles County may be subjected to strong seismic ground shaking in the event of an earthquake in the region.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide wide GHG emissions and would support development allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Implementation of these strategies, measures and actions would not directly affect the potential to expose people or structures to adverse effects resulting from geologic hazards such as earthquakes.

Projects implementing Draft 2045 CAP measures would be subject to all relevant federal, state, and local regulations and building standards, including the CBC and the and County of Los Angeles Building Code. Compliance with applicable building codes would ensure that each new development has undergone a project-specific geotechnical review prior to issuance of permits, whereby project-specific geotechnical hazards would be identified and the specific design criteria would be incorporated into individual project design plans. Geotechnical design criteria are incorporated to ensure structures can withstand potential ground shaking from regional fault sources. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects implementing Draft 2045 CAP measures would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

iii) Seismic-related ground failure, including liquefaction and lateral spreading?

Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due to the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading has been defined as the finite, lateral displacement of

3 Also referred to as WGCEP 2014, this is a working group comprised of seismologists from the U.S. Geological Survey (USGS), California Geological Survey (CGS), Southern California Earthquake Center (SCEC), and California Earthquake Authority (CEA).

4 The probabilities generated by the WGCEP reflect the probability of an earthquake to occur within a given fault zone or geographic location, within 30 years of when the study was executed. The year 2014 was used as a starting point for the 30-year projection; the year 2044 is 30 years after 2014.

gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake (Rauch 1997). The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table).

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

According to the EQ Zapp, there are several areas of concern regarding liquefaction potential in unincorporated areas of the County (CGS 2021). The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Projects implementing Draft 2045 CAP measures could be subject to the effects of liquefaction and/or lateral spreading if they are proposed in susceptible areas, thereby exposing people and structures to the potentially damaging effects of liquefaction and/or lateral spreading. Earthquake-induced liquefaction or lateral spreading could occur in the unincorporated County, resulting in potential damage new structures and the public, which could cause various structural damage, service interruptions, and potential injury. However, projects implementing Draft 2045 CAP measures would be subject to all relevant federal, state, and local regulations and building standards, including the CBC and the and County of Los Angeles Building Code. Compliance with these standards and codes would ensure that each new development has undergone a project-specific geotechnical review prior to issuance of grading permits, whereby project-specific geotechnical hazards would be identified and the specific design criteria would be incorporated into individual project design plans. Geotechnical design criteria and proper soil engineering procedures would be incorporated to ensure problematic soils are accounted for and structures are able to withstand potential damage due to liquefaction and/or lateral spreading.

Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure projects implementing Draft 2045 CAP measures would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

iv) Landslides?

Landslides are one of the various types of downslope movements (mass wasting) in which rock, soil, and other debris are displaced due to the effects of gravity. The potential for material to detach and move down slope depends on multiple factors including the type of material, water content, and steepness of terrain.

According to the EQ Zapp, there are several areas that have the potential for earthquake-induced landslides in the unincorporated County (CGS 2021). The Draft 2045 CAP would be a policy document intended to reduce County-wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Projects implementing Draft 2045 CAP measures would be subject to the effects of earthquake-induced landslides if they are proposed in susceptible areas, thereby exposing people and structures to the potentially damaging effects of landslides. Earthquake-induced landslides could occur in the unincorporated County, resulting in potential damage new

structures and the public, which could cause various structural damage, service interruptions, and potential injury.

However, as discussed above, all new developments are obligated by state and local laws to comply with the CBC and County of Los Angeles Building Code. Compliance with the applicable standards and codes would ensure that each new development has undergone a project-specific geotechnical review prior to issuance of grading permits, whereby project-specific geotechnical hazards would be identified and the specific design criteria would be incorporated into individual project design plans. Geotechnical design criteria would be incorporated into geotechnical reviews to verify the stability of nearby slopes and soils, and to provide recommendations to protect developments from causing or being affected by landslides.

Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that new developments in support of Draft 2045 CAP measures would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction and/or lateral spreading. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

b) Result in substantial soil erosion or the loss of topsoil?

The Draft 2045 CAP would be a policy document intended to reduce County-wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Construction projects implementing Draft 2045 CAP measures could include earth-moving activities that could increase the risk of erosion or sediment transport, such as clearing, excavation, grading, trenching, or soil stockpiling. Implementation of Draft 2045 CAP measures could create a significant impact relating to erosion or sediment transport if construction activities associated with multiple new developments implementing Draft 2045 CAP measures went unregulated.

However, sufficient independently enforceable laws, regulations, plans, and standards are in place to assure that the potential impact would be less than significant. To combat erosion and sedimentation caused by earth-moving activities, new developments that would disturb one or more acres are subject to the provisions of the National Pollutant Discharge and Elimination System (NPDES) General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities Order 2012-0006-DWQ (Construction General Permit). For projects that disturb less than one acre, but are part of a larger common plan of development that in total disturbs one or more acres, would also be regulated under this permit. Projects that would disturb less than one acre would be regulated under the Los Angeles County Municipal Separate Storm Water System (MS4) Permit. These state requirements were developed to ensure that erosion from construction site is controlled and monitored. The Construction General Permit requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which requires implementation of Best Management Practices (BMPs) to control stormwater run-on and runoff from construction work sites. BMPs may include, but would not be limited to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, protection of stockpiled materials, and a variety of other measures to be identified by a qualified SWPPP developer that would substantially reduce or prevent erosion from occurring during construction. Similar to building code compliance, the Construction General Permit is a state requirement; all new developments that may be proposed by individual projects implementing Draft 2045 CAP measures would be subject to this requirement. Therefore, this impact would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

As discussed above, EQ Zapp indicates that there are several areas within the unincorporated County that are susceptible to earthquake-induced liquefaction, lateral spreading, and landslides. Additionally, according to the interactive map depicting areas of land subsidence in California, provided on the United States Geological Survey (USGS) website, there are areas within the unincorporated County that show evidence of land subsidence due to groundwater withdrawal (USGS 2021). New developments supporting Draft 2045 CAP measures could include projects that require dewatering during construction. Dewatering is a common technique used during construction to lower the water table when excavations are planned to be deeper than the existing water table. Dewatering involves the removal or draining of groundwater via various pumping methods. If excessive dewatering occurs as a result of individual projects supporting Draft 2045 CAP measures, it could exacerbate land subsidence in the region.

As discussed above, all new developments are obligated by state and local laws to comply with the CBC and County of Los Angeles Building Code. Compliance with the applicable building codes would ensure that each new development has undergone a project-specific geotechnical review prior to issuance of grading permits, whereby project-specific geotechnical hazards would be identified and the specific design criteria would be incorporated into individual project design plans. Geotechnical design criteria are incorporated into geotechnical reviews to verify the stability of nearby slopes and soils, and to provide recommendations to protect developments from causing or being affected by liquefaction, lateral spreading, landslides, and subsidence. Compliance with project-specific geotechnical design recommendations and all applicable building code standards and requirements would ensure that projects implementing the Draft 2045 CAP measures would not cause substantial adverse effects, including the risk of loss, injury, or death involving strong liquefaction, lateral spreading, landslides, and subsidence. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994)⁵, creating substantial direct or indirect risks to life or property?

Expansive soils are soils that possess a “shrink-swell” characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. This property is measured using the coefficient of linear extensibility (COLE) (NRCS 2017). The Natural Resources Conservation Service (NRCS) relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent (COLE=0.03), shrinking and swelling may cause damage to building, roads, and other structures (NRCS 2017). NRCS Web Soil Survey data indicates that the soils within unincorporated areas of the County have highly variable linear extensibility ratings with percentages ranging from 1.5 to 6.5, indicating linear extensibility ratings ranging from low to high (NRCS 2021a). New projects implementing CAP measures could be constructed on expansive soils.

⁵ The CBC, based on the International Building Code and the now defunct Uniform Building Code, no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

However, sufficient independently enforceable laws, regulations, plans, and standards are in place to assure that the potential impact would be less than significant. The CBC requires geotechnical reviews to include soil testing, which identify the presence of a variety of geotechnical constraints related to soil quality, including the expansion potential of the soil. As discussed above, all new developments proposed in the unincorporated County would be subject to the standards and requirements included in the California and County building codes. Additionally, each new project implementing Draft 2045 CAP measures would be subject to individual project review. Project-specific reviews would identify any potential geotechnical hazards (such as the presence of expansive soils) and each project would adhere to the specific geotechnical requirements, as required by law. Compliance with state and local laws governing new development in the unincorporated County would ensure impacts related to expansive soils would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Implementation of future development supported by the Draft 2045 CAP measures may generate waste water. Individual projects that include structures may connect to existing sewer lines, on-site septic tanks, and/or alternative waste water disposal systems (rare). In the event that a septic tank or alternative waste water disposal system installation is proposed, there is a testing a permitting process that would be completed prior to installation based on individual project-level review.

The Web Soil Survey provides septic tank absorption field data to inform developers of the suitability of soil for supporting the use of septic tanks and other alternative wastewater treatments systems. Web Soil Survey data suggests that the suitability of the soils in the unincorporated County varies from not limited to very limited and may have one or more features that are unfavorable to septic tank usage (NRCS 2021b). Any new development that would include the utilization of a septic tank or alternative waste water disposal system would be regulated by the Los Angeles County Department of Public Health (LACDPH) and the Land Use Program of the Environmental Health Division.

Home and business property owners that want to install or replace an onsite wastewater treatment system (OWTS) must submit an application and the required documents listed on the application in order to go through the OWTS review process. Obtaining a permit would be required prior to the construction of any septic tank or alternative waste water disposal system, and each system would be constructed within the parameters of the State Water Resources Control Board (SWRCB) Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (SWRCB 2012). System design approvals may be submitted to the County Building and Safety Department prior to obtaining building permits for proposed projects.

As this procedure would be required prior to construction of any and all septic tanks and alternative wastewater disposal systems, all new projects implementing Draft 2045 CAP measures would be subject to these state and local requirements. Proper soils are essential for installation and maintenance of septic tank and alternative waste water disposal systems; compliance with these state and local requirements would ensure that impacts related to adequate soils for supporting such systems would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, Ch.22.104)?

The Hillside Management Area (HMA) Ordinance is a component of the County’s General Plan and is designed to preserve significant natural features in hillside areas. HMAs are defined as areas with natural slopes of 25 percent or greater. Compliance with the Hillside Design Guidelines is required for development in HMAs, unless exempted under the HMA Ordinance’s provisions. In hillside areas with less than 25 percent slope, use of the Hillside Design Guidelines is optional but encouraged. These guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects to ensure natural features in hillside areas are preserved.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Implementation of future activities supported by the Draft 2045 CAP measures could occur within HMA designated areas. If so, the new development would be regulated under the HMA Ordinance and subject to the Hillside Design Guidelines on a project specific basis. Requisite compliance with the ordinance would assure that new projects implementing Draft 2045 CAP measures would not result in a significant impact. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

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8. GREENHOUSE GAS EMISSIONS

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---|--|---|--------------------------|
| Would the project: | | | | |
| a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The Draft 2045 CAP would provide an approach to the reduction of GHG emissions from community activities, including future development under the General Plan. The Draft 2045 CAP, if adopted, would establish County-wide GHG reduction targets of: 25 percent below 2015 levels by 2025; 40 percent below 2015 levels by 2030; 50 percent below 2015 levels by 2035; and carbon neutrality⁶ by 2045. While significant impacts are not anticipated, potential GHG emissions reductions provided by proposed Strategies, Measures, and Actions and consistency with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions will nonetheless be further evaluated in the EIR.

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The potential for implementation of the Draft 2045 CAP to conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs will be evaluated further in the EIR. Applicable plans, policies, or regulations that will be evaluated in the EIR include the 2017 Climate Change Scoping Plan, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, the Renewables Portfolio Standard (Senate Bill 1078 and subsequent amendments in Senate Bill 100), and the California Building Energy Efficiency Standards and Green Building Code (Title 24, Parts 6 and 11). While the Draft 2045 CAP would be designed to be consistent with state and local GHG reduction plans, policies, and regulations adopted for the purpose of reducing the emissions of greenhouse gases, and significant impacts are not anticipated, the EIR analysis will nevertheless analyze the potential for conflicts.

⁶ Carbon neutrality means “net zero” emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration.

9. HAZARDS AND HAZARDOUS MATERIALS

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) **Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?**

| | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Future construction activities associated with projects implementing Draft 2045 CAP measures could involve the use of standard construction equipment and materials, which would include the following commonly used materials and substances: fuel, oils and lubricants, hydraulic fluid, paints and thinners, and cleaning solvents to maintain vehicles and motorized equipment. Routine use of any of these substances could pose a hazard to people or the environment and, unless handled in accordance with regulatory requirements, could cause a potential significant impact.

There are numerous laws and regulations that regulate the transportation, handling, storage, and disposal of hazardous materials. The Health and Safety Code and the California Code of Regulations require preparation of a Hazardous Materials Business Plan/Spill Prevention Control and Countermeasures Plan (HMBP/SPCC) when conditions have been determined to warrant regulation and, when required, that they be prepared prior to construction. HMBPs include best management practices (BMPs) for the transport, storage, use, and disposal of hazardous materials and waste. HMBPs also include information regarding construction activities, worker training procedures, and hazardous materials inventory procedures.

Any fuel tanks required for a project implementing the Draft 2045 CAP would be maintained and operated according to all local, state, and federal regulations during construction and operation, and hazardous material storage would be detailed in a SPCC Plan. Refueling and general maintenance for construction equipment, such as changing fluids and lubricating parts, also would be subject to sufficient containment capabilities and according to measures outlined in an SPCC Plan.

During construction of projects implementing Draft 2045 CAP measures, waste disposal and collection receptacles would be located on-site to ensure proper disposal of hazardous materials in accordance with regulatory requirements. Additionally, construction activity would be subject to the Construction General Permit and its required SWPPP, which include BMPs to control potentially contaminated run-off from construction sites.

Compliance with applicable federal, state, and local laws and regulations would ensure that any impact resulting from projects implementing 2045 CAP measures would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. As discussed above, the adoption of the Draft 2045 CAP could lead to new developments in support of 2045 CAP measures. During the construction of projects implementing Draft 2045 CAP measures, construction activities may involve the transportation, storage, use, or disposal of a variety of hazardous materials, including batteries, hydraulic fluid, diesel fuel, gasoline, grease, lubricants, paints, solvents, and adhesives. Additionally, if future developments are affected by the presence of known hazardous materials sites, the removal and handling of hazardous wastes could lead to an accidental release. If during the course of development, hazardous materials were accidentally released into the environment, a potential significant impact could result.

As previously noted, there are numerous laws and regulations that regulate the transportation, handling, storage, and disposal of hazardous materials. The required HMBP and SPCC Plan discussed above would include procedures that would help prevent the accidental release of hazardous materials into the environment. A standard HMBP and SPCC Plan would include BMPs as well as spill control and spill response measures to ensure any potential release would be handled appropriately. In the event that a spill did occur, the SPCC would include appropriate measures to ensure that workers cease work activities to contain any release and enact the protocols for cleanup including the notification of appropriate agencies and the use of materials stored onsite such as absorbent pads to minimize the spread or exposure.

Accidents or mechanical failure involving heavy equipment could result in the accidental release of fuel, lubricants, hydraulic fluid, or other hazardous substances. These types of spills on construction sites are typically in small quantities, localized, and cleaned up in a timely manner. Construction contractors are contractually responsible for their hazardous materials and are required under their contract to properly store and dispose of these materials in compliance with state and federal laws, including implementing a HMBP/SPCC. As discussed, projects implementing CAP measures would require coverage under the Construction General Permit (or related stormwater permit), and so would be subject to the protections included in a SWPPP, which would outline BMPs to contain a potential release and to prevent any such release from reaching an adjacent waterway or stormwater collection system (e.g., erosion control, sediment control, and waste management). As the location of future development is not known at the time of this analysis, it is not known whether new developments would be proposed on or near known hazardous materials sites.

If a future development is planned on or near a known hazardous materials site, then previously or currently contaminated soil or groundwater may be encountered during construction activities (e.g., grading, excavation, utility installation, soil remediation, etc.), and could result in a significant impact. To account for this potential, Mitigation Measure HAZ-1 shall be included in any future environmental document that will be prepared during subsequent project-specific evaluations, in compliance with CEQA.

Compliance with applicable federal, state, and local laws and regulations and the applicable BMPs and HMBP/SPCC plan, ensure that any impact resulting from projects implementing Draft 2045 CAP measures would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses?

Some populations (e.g., children, elderly, sick or disabled persons) are more susceptible to health effects of hazardous materials than the general population. Hazardous materials used near schools, day care centers, senior living communities, hospitals, etc., must consider potential health effects to these populations, often referred to as “sensitive receptors.” Construction or redevelopment on contaminated properties that could potentially generate vapors or fugitive dust containing contaminants may potentially pose a health risk to these populations. In addition, commercial businesses in proximity to sensitive receptors may have hazardous emissions or handle hazardous or acutely hazardous materials or wastes that could pose a health risk to these sensitive receptors.

As discussed in Section 3, *Air Quality*, there are several sensitive receptors and receptor locations within the unincorporated County, and it is not known at the time of this analysis whether projects implementing Draft 2045 CAP measures would be constructed in proximity to one or more of them. Typically, developments that would handle hazardous materials or discharge hazardous emissions within one-quarter mile of a sensitive receptor are at risk of exposing sensitive receptors to hazardous materials and emissions. While the Draft 2045 CAP adoption would not directly cause hazardous emissions, it would encourage new developments that could create hazardous emissions. Impacts generated by the release of hazardous emissions in proximity to sensitive receptors would occur during construction phases and would be temporary.

To protect sensitive receptors, Section 17210 et seq. of the State Education Code, Sections 21151.2 and 21151.4, and 21151.8 of the Public Resources Code require that prospective school sites be reviewed to determine that such sites are not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of hazardous substance pipelines. These laws also require consultation with local hazardous materials agencies and air quality districts to ensure that sites within one-quarter mile of a school that handle or emit hazardous substances would not potentially endanger sensitive receptors.

The other federal, state, and local laws and regulations that regulate hazardous materials, discussed above in criteria a) and b) and in criterion d) below, also would be applied to any activities involving handling hazardous materials or releasing hazardous emissions within one-quarter mile of a sensitive receptor. Compliance with the applicable federal, state, and local laws and regulations would ensure any potential impacts to sensitive receptors would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The provisions in Government Code Section 65962.5, commonly referred to as the “Cortese List,” require the DTSC to compile and maintain a list of Hazardous Waste and Substances sites, including SWRCB leaking underground storage tank (LUST) Sites, active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO), and certain solid waste disposal sites and hazardous waste facilities. As discussed in the context of criterion a), above, there are several hazardous materials sites within the unincorporated County, many of which are included on the Cortese List. If new developments implementing Draft 2045 CAP measures are

proposed on or near hazardous materials sites that have been included on the Cortese List, then the risk of creating a significant hazard to the public or environment increases, as potentially contaminated soil and/or groundwater could be exposed during ground-disturbing activities. A potential significant impact would occur if new development implementing Draft 2045 CAP measures on or near a site listed on the Cortese List exposed hazardous materials to people or the environment.

The previously discussed laws governing the use, transportation, storage, and disposal of hazardous materials would apply to developments proposed on or near Cortese List sites. In addition, sites listed on the Cortese List are under the jurisdiction of a regulatory agency (e.g., Department of Toxic Substances Control [DTSC] or Regional Water Quality Control Board [RWQCB] or a local agency), hence the reason for their inclusion on the Cortese List. As such, the overseeing regulatory agency is in the process of requiring the owners/operators of listed sites to bring their sites into compliance. This includes requiring sites with spills or releases to soil and/or groundwater to investigate and clean up their sites to levels that no longer pose risks to people or the environment. The listings on the Cortese List are public records. At the time when a specific project is implemented, the current status of nearby sites on the Cortese list can be checked and the project planned accordingly to comply with the overseeing regulatory agency requirements, if any. Compliance with applicable federal, state, and local laws and regulations would ensure that any potential impacts would be considered less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

According to the County’s General Plan and the Los Angeles County Airport Land Use Plan (ALUP), there are 14 airports within the County (Los Angeles County ALUC, 2004), all of which would be within two miles of at least a portion of the unincorporated County. The airports in the County are as follows:

- Agua Dulce Airport
- Compton/Woodley Airport
- Hawthorne Municipal Airport
- Hollywood Burbank Airport
- El Monte Airport
- Long Beach Municipal Airport
- Los Angeles International Airport
- Palmdale Regional Airport
- Santa Monica Municipal Airport
- Van Nuys Airport Burbank Airport
- Whiteman Airport
- Brackett Field
- Zamperini Field
- General Williams J. Fox Airfield

The Draft 2045 CAP would be a policy document intended to reduce unincorporated wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. As the Draft 2045 CAP could result in new projects implementing Draft 2045 CAP measures within the unincorporated County, adoption of the Draft 2045 CAP could result in new developments being located within a delineated safety or noise hazard zone and could result in a safety hazard or excessive noise for people residing or working in the area.

The Federal Aviation Administration (FAA) identifies and regulates potential impacts related to air traffic and related safety hazards. The FAA’s Federal Aviation Regulation (FAR) at 14 CFR Part 77 establishes standards and notification requirements for objects affecting navigable airspace. These potential impacts are regulated at the federal level; as such, all new developments that may be proposed within any airport safety or noise hazard zones, or that would include components that may cause a safety hazard, would be obligated to comply with FAA regulations. Additionally, any development proposed in a delineated safety or noise hazard zone (as provided by the County ALUP) would be required to comply with any requirements included in the County ALUP. Through compliance with FAA regulation and the County ALUP guidelines, potential impacts resulting from the adoption of the Draft 2045 CAP would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The 2019 County of Los Angeles All-Hazards Mitigation Plan does not include specific evacuation routes to be used in the event of an emergency (County of Los Angeles 2019). However, the County’s General Plan includes a map of freeway and highway Disaster Routes, many of which cross through portions of the unincorporated County (Los Angeles County 2015). Depending on the nature of projects implementing Draft 2045 CAP measures, they may require construction in major roadways or the closure of major roadways to facilitate construction activities. If construction activities within major roadways or road closures were required to facilitate projects implementing Draft 2045 CAP measures, then activities could obstruct major roadways and could hinder evacuation procedures.

Although the locations and details of potential projects implementing Draft 2045 CAP measures are not known at the time of this analysis, such projects would be subject to individual project review pursuant to the grading or building permit application process. If, based on such review, it is determined that a specific project could conflict with an emergency response or evacuation plan, then a project-specific traffic control plan would be required to avoid such conflicts. Because any potential impacts to the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact could occur, the impacts associated with implementation of the Draft 2045 CAP would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving fires, because the project is located: (i) within a high fire hazard area with inadequate access; (ii) within an area with inadequate water and pressure to meet fire flow standards; (iii) within proximity to

land uses that have the potential for dangerous fire hazard; or (iv) would constitute a potentially dangerous fire hazard.

According to fire hazard mapping by the California Department of Forestry and Fire Protection (CAL FIRE), as part of the Fire and Resource Assessment Program (FRAP), there are several areas of the unincorporated County that are classified as Very High Fire Hazard Severity Zones (VHFHSZ) (CAL FIRE 2012). The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. If new projects implementing Draft 2045 CAP measures would involve construction activities, then the use of construction equipment and the possible temporary on-site storage of fuels and/or other flammable construction chemicals could pose an increased fire risk resulting in injury to workers or the public during construction. However, contractors would be required to comply with hazardous materials storage and fire protection regulations, which would minimize potential for fire creation.

Further, a detailed site-specific, project-specific fire risk analysis would occur for any proposed new development that would be subject to a project-specific CEQA analysis. If it is determined during the CEQA process that the implementing project would be constructed within or adjacent to a VHFHSZ, or future project activities would exacerbate an existing fire risk, then mitigation measures would be proposed at the time to address the potential fire risk. In addition to any project-specific fire-related mitigation recommendations, any new development within Los Angeles County (included the unincorporated areas) would be subject to Title 32 of the Los Angeles County Code (the Los Angeles County Fire Code). Compliance with the County Fire Code would ensure that any new development in the unincorporated County would be in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Compliance with the County Fire Code would also ensure developments that are within mapped VHFHSZs are properly inspected, obtain the applicable permits, and abide by fire prevention techniques.

Given that any project that would result from the adoption of the Draft 2045 CAP would address fire risks at the time of development, and that any future development would be required to comply with the County Fire Code, the impacts as a result of the Draft 2045 CAP would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

References

- California Department of Forestry and Fire Protection (CAL FIRE), 2011. Fire Hazard Severity Zones in Local Responsibility Areas (LRA). Forest Resource Assessment Program. Map. Scale 1:150,000.
- Los Angeles County, 2015. Los Angeles County General Plan 2035. Chapter 12, Safety Element. Disaster Routes.
- County of Los Angeles, 2019. 2019 County of Los Angeles All-Hazards Mitigation Plan.
- Department of Toxic Substances Control (DTSC), 2021. EnviroStor database. Hazardous materials sites in Los Angeles County.
- Los Angeles County Airport Land Use Commission (ALUC), 2004. Los Angeles County Airport Land Use Plan.

State Water Resources Control Board (SWRCB), 2021. GeoTracker database. Hazardous materials sites in Los Angeles County.

10. HYDROLOGY AND WATER QUALITY

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

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| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

Less than Significant Impact. The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The Draft 2045 CAP would not include measures or actions that would degrade surface or groundwater quality or violate any water quality standards or waste discharge requirements. However, projects implementing Draft 2045 CAP measures, depending on the nature of future developments, could include activities that may create an impact to surface or groundwater quality.

Projects implementing Draft 2045 CAP measures within the unincorporated County would be required to comply with independently enforceable requirements of the National Pollutant Discharge and Elimination System (NPDES) General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities Order 2012-0006-DWQ (Construction General Permit) and the Los Angeles County Municipal Separate Storm Water System (MS4) Permit. Compliance with the provisions of these permits would ensure that construction activities would not create a significant adverse impact to water quality. In addition, new projects would be required to undergo a project-specific CEQA analysis, during which any potential impact to water quality would be identified and addressed during the planning process. Therefore, implementation of the Draft 2045 CAP would not violate water quality standards, waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. As a result, impacts would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

b) **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

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|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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As discussed above, the Draft 2045 CAP would not directly impact water resources, including groundwater resources. While the adoption of the Draft 2045 CAP would not directly impact groundwater supplies or groundwater recharge, it could encourage new projects implementing Draft 2045 CAP measures in unincorporated areas of the County. Depending on the nature of future developments, they could include activities that may impact groundwater supplies and groundwater recharge. However, the Draft 2045 CAP would include a number of actions to increase the use of alternate water sources and reduce water consumption.

While the Draft 2045 CAP may promote development that may require water for construction and operation, these developments would be required to comply with the Draft 2045 CAP measures that require net zero water in new development and significant reductions in indoor and outdoor water use for municipal,

commercial, and industrial development. Therefore, overall, the strategies and measures proposed in the Draft 2045 CAP would result in reductions in water demand. While the Draft 2045 CAP may result in the development of facilities that would require water for construction and operation, these developments would be required to comply with the adopted Draft 2045 CAP; therefore, would be required to be net zero water and would not result in additional water demand. Therefore, the Draft 2045 CAP would have a beneficial impact with regard to water supply, impacts would be less than significant and these considerations will not be evaluated further in the EIR.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The adoption of the Draft 2045 CAP would not directly cause alterations to drainage patterns through alteration of the course of a stream or river, or through the addition of impervious surfaces. It is possible, however, that future projects implementing Draft 2045 CAP measures would include activities that could contribute to the alteration of an existing drainage pattern of a site. The General Plan Safety Element includes goals and policies that would discourage development within delineated flood hazard zones; the Safety Element is currently undergoing an update and it expected that similar or more stringent goals and policies will be included. Compliance with the existing and newly adopted goals and policies would ensure that impacts would be less than significant, and this potential impact will not be evaluated further in the EIR.

d) Otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements?

The adoption of the Draft 2045 CAP would not place structures within a flood hazard or floodplain area. The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. However, it is not known at the time of this analysis whether the adoption

of the Draft 2045 CAP would encourage new developments within a flood hazard or floodplain area. However, as discussed above, the existing General Plan goals and policies discourage new development in flood hazard or floodplain areas. Compliance with the goals and policies included in the General Plan would ensure impacts would be less than significant, and potential impacts will not be evaluated further in the EIR.

e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84)?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. New projects implementing Draft 2045 CAP measures would be evaluated independent of the Draft 2045 CAP for compliance with the Los Angeles County Low Impact Development (LID) Ordinance.

New developments within the unincorporated County also could be subject to the National Pollutant Discharge and Elimination System (NPDES) General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities Order 2012-0006-DWQ (Construction General Permit) and the Los Angeles County Municipal Separate Storm Water System (MS4) Permit. Compliance with the provisions of these permits would ensure that construction activities would further assure project consistency with the County LID Ordinance. Requisite compliance with the independently enforceable requirements of the LID Ordinance would assure that adoption and implementation of the Draft 2045 CAP would result in no impact relating to this criterion. Accordingly, this criterion will not be evaluated further in the EIR.

f) Use onsite wastewater treatment systems in areas with known geological limitations (e.g., high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?

Less than Significant Impact. The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Potential future projects implementing Draft 2045 CAP measures may connect to existing sewer lines, on-site septic tanks, and/or alternative waste water disposal systems (rare). In the event that a septic tank or alternative waste water disposal system installation is proposed, a testing and permitting process would need to be completed prior to installation.

The Web Soil Survey provides septic tank absorption field data to inform developers of the suitability of soil for supporting the use of septic tanks and other alternative wastewater treatments systems. Web Soil Survey data suggests that the suitability of the soils in the unincorporated County varies not limited to very limited and may have one or more features that are unfavorable to septic tank usage (NRCS 2021). Any new development that would include the utilization of a septic tank or alternative waste water disposal system, would be regulated by the Los Angeles County Department of Public Health (LACDPH) and the Land Use Program of the Environmental Health Division.

Home and business property owners that want to install or replace an onsite wastewater treatment system (OWTS) must submit an application and the required documents listed on the application in order to go

through the OWTS review process. Obtaining a permit would be required prior to the construction of any septic tank or alternative waste water disposal system, and each system would be constructed within the parameters of the State Water Resources Control Board (SWRCB) Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (SWRCB 2012). System design approvals may be submitted to the County Building and Safety Department prior to obtaining building permits for proposed projects.

As this procedure would be required prior to construction of any and all septic tanks and alternative waste water disposal systems, all new developments would be subject to these state and local requirements. Proper soils are essential for installation and maintenance of septic tank and alternative waste water disposal systems; requisite compliance with these independently enforceable state and local requirements would ensure that adoption and implementation of the Draft 2045 CAP would have no impact related to this criterion. Accordingly, this criterion will not be evaluated further in the EIR.

g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Adopting the Draft 2045 CAP would not directly result in an increased risk of release of pollutants due to inundation by a flood, tsunami, or seiche. According to the General Plan, there are several areas that have been mapped as a flood hazard zones and the entire County coastline is considered a tsunami hazard area (Los Angeles County 2015a; Los Angeles County 2015b). The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under General Plan land use assumptions with adoption of the 2021-2029 Housing Element.

Although adoption of the Draft 2045 CAP would not directly result in the release of pollutants, it is possible that future projects implementing Draft 2045 CAP measures could be located in or near a flood or tsunami hazard zone. However, it is not known at the time of this analysis whether the adoption of the Draft 2045 CAP would encourage new developments that would release pollutants due to inundation in flood hazard, tsunami, or seiche zones. If future developments subject to a discretionary agency approval are proposed in areas of flood or tsunami risk, then project-specific CEQA analyses would be required. However, as discussed above, the existing General Plan goals and policies discourage new development in flood hazard or floodplain areas. Compliance with the goals and policies included in the General Plan would ensure impacts would be less than significant. This consideration will not be evaluated further in the EIR.

h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Adoption of the Draft 2045 CAP would not directly affect the beneficial uses of surface waters governed in the basin plan or involve direct extraction of groundwater.

The Los Angeles Regional Water Quality Control Board describes its water quality control plan as follows: “Los Angeles Regional Board’s Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.” The

Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties is available online (Los Angeles RWQCB 2021).

The Sustainable Groundwater Management Act (SGMA), which became law in 2014, created a new structure for local groundwater management by local agencies through groundwater sustainability agencies (GSAs) toward achieving sustainable groundwater management within 20 years. The formation of GSAs for all basins that have been designated as high- and medium-priority groundwater basins was required by July 1, 2017. Each GSA for these high- and medium-priority basins must then develop a groundwater sustainability plan (GSP) that details how sustainable groundwater management will be achieved within 20 years of implementing the GSP. The GSP is a tool used to help the GSA sustainably manage the basin. The Department of Regional Planning represents the County of Los Angeles on two GSAs: Santa Clarita Valley GSA and Santa Monica Basin GSA.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. It is possible that future projects would be developed as part of furthering the goals of the Draft 2045 CAP, and that such projects could include activities that may conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. However, any future projects would be subject to the independently enforceable requirements of the of the basin plan and SGMA. This requisite compliance would assure that the Draft 2045 CAP would have no impact relative to this criterion. Accordingly, this criterion will not be evaluated further in the EIR.

References

County of Los Angeles, 2015a. Los Angeles County General Plan 2035. Chapter 12, Safety Element. Tsunami Hazard Area.

County of Los Angeles, 2015b. Los Angeles County General Plan 2035. Chapter 12, Safety Element. Flood Hazard Zones.

Los Angeles RWQCB, 2020. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. Available online: https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html. Page updated May 18, 2020.

Natural Resources Conservation Service (NRCS), 2021. Web Soil Survey. Septic Tank Absorption Fields—Contra Costa County, California. Map. Scale 1:24,500.

State Water Resources Control Board (SWRCB), 2012. Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Water Treatment Systems. June 19, 2012.

11. LAND USE AND PLANNING

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| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|

Would the project:

a) Physically divide an established community?

The Draft 2045 CAP would be a policy level document that does not include site-specific projects or proposals that could physically divide an established community. The Draft 2045 CAP would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element and future activities supported by the Draft 2045 CAP are anticipated to be located primarily within established communities. Therefore, the Draft 2045 CAP would have no direct impacts.

The projects implementing Draft 2045 CAP strategies would generally improve connections between and within communities. Examples of measures proposed in the Draft 2045 CAP that would encourage infill development to increase density to the extent allowed in the General Plan near high quality transit areas are Measures T1 and T2. Development of transit, bicycle transit and pedestrian routes would be encouraged by Measures T3 and T4. Draft 2045 CAP Measures E1, E5, E8, and W1 could promote the construction of facilities such as solar generation, water recycling, or waste management facilities. Implementation of these types of projects would be subject to project level review and are typically designed to connect to the communities they are anticipated to serve. No changes to General Plan land use designations are proposed as part of the Draft 2045 CAP. Therefore, adoption of the Draft 2045 CAP would result in no impacts relating to the potential to divide an established community. Accordingly, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

b) Cause a significant environmental impact due to a conflict with any County land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Draft 2045 CAP would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element and no changes to land use designations are proposed. The CAP is part of the Air Quality Element of the General Plan and adoption of the Draft 2045 CAP would replace the CCAP and require a General Plan Amendment. While significant impacts are not anticipated, this issue will nonetheless be further evaluated in the EIR to provide a more detailed analysis of the Draft 2045 CAP's consistency with existing land use plans and zoning. Most notably, the analysis will evaluate the CAP's consistency with the General Plan, its respective elements (including the 2021-2029 Housing Element), and SCAG's 2020-2045 RTP/SCS (Connect SoCal).

c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas?

The Draft 2045 CAP would be a policy level document that would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element and no changes to land

use designations are proposed. The potential for the Project to conflict with policies related to Hillside Management Areas are analyzed in Section 7, Geology and Soils, under criterion f). As described in Section 7, no impact would result. The potential for the Project to conflict with policies related to the management of Significant Ecological Areas is addressed in Section 4, Biological Resources, under criterion f). As indicated in that section, the possibility that the Draft 2045 CAP could conflict with the goals and policies of the General Plan related to SEAs would be less than significant and this will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

12. MINERAL RESOURCES

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
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Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

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| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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The General Plan includes a map of designated Mineral Resource Zones (MRZs) locations within the County (County of Los Angeles 2015). The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Projects implementing Draft 2045 CAP measures could be proposed in the area of a known mineral resource that would be of value to the region and the residents of the state and, as a result, could result in the loss of availability to such resources. However, the Conservation and Natural Resources Element of the General Plan includes goals and policies that are designed to protect significant mineral resources and to ensure that new developments proposed in designated MRZs are not lost or destroyed. Additionally, the Surface Mining and Reclamation Act of 1975 (SMARA) regulates surface mining operations to assure that adverse environmental impacts are minimized, and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state’s mineral resources.

As compliance with SMARA and the General Plan goals and policies protecting mineral resources would be required prior to construction of any new developments in MRZs, all new projects implementing Draft 2045 CAP measures would be subject to these state and local requirements. Compliance with these state and local requirements would ensure that adoption of the Draft 2045 CAP would not result in the loss of availability of known mineral resources. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

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| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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For the reasons discussed in the context of criterion a), adoption and implementation of projects in furtherance of the Draft 2045 CAP could result in a potential significant impact related to this criterion. However, as discussed in criterion a), any new developments encouraged by adoption of the Draft 2045 CAP would be subject to existing goals and policies included in the General Plan, as well as the SMARA. Accordingly, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

References

Los Angeles County, 2015. Los Angeles County General Plan 2035. Chapter 9, Conservation and Natural Resources Element. Mineral Resources Zones.

13. NOISE

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
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Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?

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| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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The Draft 2045 CAP identifies Strategies, Measures, and Actions to provide an approach for the reduction of GHG emissions from community activities, including future development under the General Plan. While the Draft 2045 CAP would not directly result in development, implementation of the CAP could indirectly result in construction and operation of future development what would increase noise levels in unincorporated areas of the County. During construction associated with future development, the potential would exist for temporary or periodic increases in noise levels and/or ground-borne noise and vibration levels on and adjacent to project sites. This potential significant impact will be analyzed further in the EIR.

b) Generation of excessive groundborne vibration or groundborne noise levels?

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|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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The Draft 2045 CAP identifies Strategies, Measures, and Actions to provide an approach for the reduction of GHG emissions from community activities, including future development under the General Plan. While the Draft 2045 CAP would not directly result in development, implementation of the CAP could indirectly result in temporary construction activities of future development that could increase groundborne vibration or groundborne noise levels in unincorporated areas of the County. This potential significant impact will be analyzed further in the EIR.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

| | | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|

Los Angeles County includes a large number of public- and private-use airports that contribute to the noise environment, including in unincorporated areas of the County. Adoption of the Draft 2045 CAP would not directly result in development within plan areas of Airport Land Use Compatibility Plans (ALUCPs). Implementation of the CAP could indirectly result in development within ALUCPs, including the comprehensive Los Angeles County ALUCP and the ALUCP for the General William J. Fox Airfield. However, independent of the Draft 2045 CAP, future development would be required to be consistent with any applicable ALUCP constraints. Furthermore, compliance with policies included in the Land Use Element

and Noise Element of the General Plan related to land use compatibility would ensure that future development would not conflict with ALUPs. In particular, General Plan Policy LU 7.6 explicitly requires consistency that airport land use plans address conflicts between airport operations and surrounding land uses. Policy N 1.12 requires that land use decisions on parcels adjacent to transportation facilities, including those adjacent to airports, consider existing and future noise levels of the adjacent transportation facilities. Requisite compliance with independently enforceable obligations of ALUPs and the General Plan would ensure that the Draft 2045 CAP would result in a less than significant impact relative to the potential exposure of people residing or working in unincorporated areas of the County to excessive airport or airstrip noise. Accordingly, this criterion will not be evaluated further in the EIR.

14. POPULATION AND HOUSING

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The Draft 2045 CAP would support development allowed under the General Plan land use assumptions with the 2021-2021 Housing Element. The Draft 2045 CAP would be a policy level document that does not include site-specific projects or proposals that could directly induce population growth. Projects implementing Draft 2045 CAP policies are anticipated to primarily be located within the urban environment and in disturbed areas with existing infrastructure. The Draft 2045 CAP includes Measure T1 to encourage density near high-quality transit areas and Measure T2 to develop land use plans addressing jobs/housing balance and increased mixed use to the extent allowed by the General Plan. No changes to General Plan land use designations are proposed. Therefore, the Draft 2045 CAP would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan with the 2021-2029 Housing Element. Therefore, impacts would be less than significant, and this issue will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

- b) Displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. Implementation of the measures in the Draft 2045 CAP would involve retrofitting existing building or requiring new developments incorporate water conservation systems, energy efficiency upgrades, and sustainable waste management upgrades. These retrofits and upgrades for new developments are not anticipated to displace existing housing or people. Some of the CAP strategies could promote the construction of larger projects such as solar facilities, water recycling facilities, and waste management facilities. These types of facilities are typically sited away from existing residential areas and would not be likely to displace existing housing. Projects implementing Draft 2045 CAP measures would be evaluated for project level compliance with existing regulations and environmental requirements once details are known. Draft 2045 CAP Impacts would be less than significant and will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

15. PUBLIC SERVICES

| | | | |
|--|--|---|----------------------|
| | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
| | <i>Potentially Significant Impact</i> | | |

a) **Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

Fire protection, sheriff protection, schools, parks, libraries?

Regulatory Setting

California Health and Safety Code (Section 13000 et seq.)

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which include regulations related to building standards, fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and child care facility standards, and fire suppression training.

California Code of Regulations Title 24, Part 2 and Part 9

Part 2 refers to the California Building Code, which includes complete regulations and general construction building standards including administrative, fire and life safety, and field inspection provisions. Part 9 refers to the California Fire Code, which contains fire-safety-related building standards referenced in other parts of Title 24. This code was revised in January 2019 with a change in the base model/consensus code from the Uniform Fire Code series to the International Fire Code.

California Public Resources Code, Section 4201-4204

This section of the California Public Resources Code requires the California Department of Forestry to classify all State Responsibility Areas (SRAs) into fire hazard severity zones. The purpose of this code is to provide classification of lands within SRAs in accordance with the severity of fire hazard present for the purpose of identifying measures to be used to retard the rate of spreading and to reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property.

State Responsibility Area Fire Safe Regulations (Title 14 Natural Resources, Department of Forestry and Fire Protection)

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in SRAs. Title 14 mandates that the future design

and construction of structures, subdivisions, and developments in an SRA provide for basic emergency access and perimeter wildfire protection measures.

2019 California Fire Code

The California Fire Code (24 CCR Part 9) establishes regulations to protect life and property from the hazards of fires in new and existing buildings and structures. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire service features such as fire apparatus access roads, means of egress fire safety during construction and demolition, and wildland-urban interface areas.

Los Angeles County 2035 General Plan

The Safety Element of the General Plan provides the following goals and policies potentially relevant to the Draft 2045 CAP (County of Los Angeles 2015):

Goal S 4: Effective County emergency response management capabilities.

- Policy S 4.1:** Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.
- Policy S 4.2:** Support County emergency providers in reaching their response time goals.
- Policy S 4.3:** Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning.
- Policy S 4.4:** Encourage the improvement of hazard prediction and early warning capabilities.
- Policy S 4.5:** Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.
- Policy S 4.6:** Ensure that essential public facilities are maintained during natural disasters, such as flooding.

The Public Services and Facilities Element of the General Plan provides the following goals and policies potentially relevant to the Draft 2045 CAP (County of Los Angeles 2015):

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.

- Policy PS/F 1.1:** Discourage development in areas without adequate public services and facilities.
- Policy PS/F 1.2:** Ensure that adequate services and facilities are provided in conjunction with development through phasing or other mechanisms.

- Policy PS/F 1.3:** Ensure coordinated service provision through collaboration between County departments and service providers.
- Policy PS/F 1.4:** Ensure the adequate maintenance of infrastructure.
- Policy PS/F 1.5:** Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development.
- Policy PS/F 1.6:** Support multi-faceted public facility expansion efforts, such as substations, mobile units, and satellite offices.
- Policy PS/F 1.7:** Consider resource preservation in the planning of public facilities.

Developer Fee for the Consolidated Fire Protection District of Los Angeles County

In response to increasing demands for new facilities, equipment, and staffing created by new development, the County has implemented a Developer Fee Program to fund the purchase of fire station sites, the construction of new stations, and the funding of certain capital equipment in the high-growth areas of the County (County of Los Angeles 2020a). The developer fees, which are specified in the Developer Fee Detailed Fire Station Plan (County of Los Angeles 2020a), are paid to the Consolidated Fire Protection District of Los Angeles County (Fire District). This Fire District developer fee is adjusted annually and is charged on all new development, including residential buildings, new detached residential accessory structures, new commercial buildings, and new additions over 2,000 square feet prior to building permit issuance.

Los Angeles County Title 22 Planning and Zoning Codes – Mitigation Fees Section 22.246.060

Section 22.246.070 Law Enforcement Facilities Fee

According to Chapter 22.14, Definitions, of Los Angeles County’s Title 22 Planning and Zoning Code, law enforcement fees provide funds for law enforcement facilities related to residential, commercial, office, and/or industrial development projects. The amount to be paid is determined based on which law enforcement facilities fee zone the proposed project is located in: Zone 1: Santa Clarita Zone, Zone 2: Newhall Zone, and Zone 3: Gorman Zone.

Library Facilities Mitigation Fee

According to the County’s General Plan, the library facilities mitigation fee is based on the estimated cost of providing the projected library facility needs in each library planning area (County of Los Angeles 2015). The mitigation fee shall provide funds for library facilities related to a residential development project.

School District Developer Fees

Los Angeles Unified School District has developer fee collection rates for residential and commercial/industrial developments. Compton Unified School District collects developer fees for residential and commercial/industrial developments. Districts that do not collect developer fees include Montebello Unified, Pasadena Unified, Hawthorne Unified, Rowland Unified, and Centinela Valley Union High School District (Los Angeles County, 2021).

Discussion

Increases in demand for public services such as fire protection, schools, parks, and libraries are generally created by increases in population. The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions. The Draft 2045 CAP does not propose any changes to the land use

designations or density beyond what is currently allowed under the General Plan. Therefore, adoption of the Draft 2045 would not be anticipated to result in substantially new or increased population growth not already accounted for in the General Plan that could in turn require the construction of new or expanded public services.

While the Draft 2045 CAP itself does not include any project proposals, it would promote the development of projects designed to increase water conservation, energy efficiency, and low-carbon transportation. Many of these projects would involve retrofitting and improving existing buildings and developments. The Draft 2045 CAP includes measures that would encourage green space, which could result in the construction or expansion of parks and open spaces. Some of the projects could involve new construction of water recycling facilities, composting facilities, and solar energy generation facilities as allowed under General Plan land use designations. Projects implementing CAP measures are likely to require construction work crews. However, projects implementing CAP measures are anticipated to have generally short construction periods and construction workers could come from within the existing community. Thereby, substantial population growth inducement is not expected beyond what was accounted for in the General Plan buildout. The location and design of projects intended to implement CAP policies are not known. Individual projects implementing CAP policies would be required to comply with applicable land use plans and regulations designed to ensure adequate public services including those identified above under the regulatory setting. Therefore, impacts from adoption of the Draft 2045 CAP on demand for public services would be less than significant.

References

County of Los Angeles Department of Regional Planning, 2021. Program Environmental Impact Report for the Los Angeles County Housing Element Update. June 2021. URL: https://planning.lacounty.gov/assets/upl/project/Housing_peir.pdf

16. RECREATION

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---------------------------------------|--|-------------------------------------|--------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Regulatory Setting

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element. An increase in the use of existing neighborhood and regional parks or recreational facilities typically would occur as a result of population growth. The Draft 2045 CAP does promote buildout to the higher densities allowed near high quality transit areas and mixed-use development (Measure T1 and T2). However, as described in Section 14, *Population and Housing*, the Draft 2045 CAP would not result in an unanticipated increase in density or population growth outside of what was accounted for in General Plan. Therefore, the Draft 2045 CAP would not result in substantial new unplanned population growth that could in turn result in the increase use of recreational facilities causing the creation or acceleration of substantial physical deterioration of recreational facilities.

The Draft 2045 CAP would promote implementation projects that could include mixed-use developments, solar energy generation facilities, waste management facilities, transit routes, and water recycling facilities. Depending on the location of such implementing projects, construction could have the potential to result in minor disruptions to recreational resources. However, these disruptions are expected to be temporary, would occur at different locations throughout the County, and would not result in a significant disruption of recreational resources in one neighborhood or location such that any increase in use of the facilities would create or accelerate substantial physical deterioration.

The Draft 2045 CAP would not result in population growth outside of densities and growth accounted for in the existing General Plan and 2021-2019 Housing Element. For these reasons, the potential for the Draft 2045 CAP to cause or accelerate substantial physical deterioration would be less than significant., this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element. The Draft 2045 CAP includes measures that would encourage green space, which could result in the construction or expansion of parks and open spaces. The Draft 2045 CAP includes Measure A3 which encourages the expansion of green spaces in unincorporated areas of the County. This

measure could promote the construction of new parks or recreational facilities or the expansion of existing green spaces as allowed under current General Plan land use designations. The expansion of existing recreational facilities could require some demolition and minor construction impacts. The construction of new recreational facilities could also result in demolition of existing buildings and minor construction impacts. The creation of new green space could result in environmental impacts; however, in general, the expansion of green spaces is likely to improve environmental conditions by creating more potential habitat improving aesthetics, creating more carbon sequestration opportunities, and creating more infiltration for water runoff. Furthermore, the construction impacts of creating new open space would generally be expected to be short-term and minor. Overall creating additional green space is expected to result in beneficial environmental impacts. Additionally, projects implementing CAP measures would be required to comply with applicable land use plans and policies for recreational facilities including those identified above. Impacts are considered less than significant.

c) Would the project interfere with regional trail connectivity?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element. The Draft 2045 CAP promotes the expansion of bicycle and pedestrian networks (Measure T3) and the expansion of green space (Measure A3). These measures are anticipated to promote projects to expand regional trail connectivity that would result in beneficial impacts. Additionally, projects implementing CAP measures would be required to comply with applicable land use plans and policies for recreational facilities including those identified above. Impacts are considered less than significant.

17. TRANSPORTATION

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|
|--|---|--|---|----------------------|

Would the project:

a) Conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The Draft 2045 CAP would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element and no changes to land use designations are proposed as part of the Draft 2045 CAP. The Draft 2045 CAP would be a policy document to provide a community-wide approach to the reduction of GHG emissions from community activities, including future development under the General Plan. While significant impacts are not anticipated, consistency with applicable plans, policies, and regulations related to the circulation system, transit, roadway, bicycle and pedestrian facilities will nonetheless be evaluated further in the EIR.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The Draft 2045 CAP would provide an approach to the reduction of GHG emissions from community activities, including future development under the General Plan. The potential for GHG reduction measures to result in reductions in vehicles miles traveled (VMT) is anticipated to result in less than significant impacts. Nonetheless, this issue will be further evaluated in the EIR.

c) Substantially increase hazards due to a road design feature (e.g., sharp curves) or incompatible uses (e.g., farm equipment)?

The Draft 2045 CAP would provide an approach to the reduction of GHG emissions from community activities, including future development under the General Plan. While significant impacts are not anticipated, the potential for GHG reduction measures to increase hazards due to a road design feature or incompatible uses will be evaluated further in the EIR.

d) Result in inadequate emergency access?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The 2019 County of Los Angeles All-Hazards Mitigation Plan does not include specific evacuation routes to be used in the event of an emergency (County of Los Angeles 2019). However, the General Plan includes a map of freeway and highway Disaster Routes, many of which cross through portions of the unincorporated County (Los Angeles County 2015). Depending on the nature of projects implementing Draft 2045 CAP measures, they may require construction in major roadways or the closure of major roadways to facilitate construction activities. If construction activities within major roadways or road closures were required to facilitate projects implementing Draft 2045 CAP measures, then activities could obstruct major roadways and could hinder evacuation procedures.

Although the locations and details of potential projects implementing Draft 2045 CAP measures are not known at the time of this analysis, such projects would be subject to individual project review pursuant to the grading or building permit application process. If, based on such review, it is determined that a specific project could conflict with an emergency response or evacuation plan, then a project-specific traffic control plan would be required to avoid such conflicts. Because any potential impacts to the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact could occur, the impacts associated with implementation of the Draft 2045 CAP would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

18. TRIBAL CULTURAL RESOURCES

| | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|--|---|----------------------|
|--|--|---|----------------------|

a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

- | | | | | |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|
| i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k), or | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|

Los Angeles County is situated on land traditionally occupied by indigenous people associated with five Native American groups: Gabrielino (including the Tongva and Kizh), Tataviam, Serrano, Kitanemuk, and Ventureño Chumash. These groups have rich heritage and deep traditional and cultural values associated with the natural environment and material culture.

Signed into law in September of 2014, Assembly Bill (AB) 52, established “tribal cultural resources” as a new class of resources under CEQA. Tribal cultural resources are defined in PRC 21074 as “site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.” Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, where one or more California Native American Tribes has requested formal written notification of proposed projects from a lead agency, the lead agency shall provide formal written notification of proposed projects and engage in consultation with requesting tribes as prescribed in the statute.

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under General Plan land use assumptions with adoption of the 2021-2029 Housing Element. As a policy document, the Draft 2045 CAP itself would not result in direct impacts to tribal cultural resources.

On October 21, 2019, the County submitted notification and request to consult letters to five (5) individuals and organizations pursuant to AB 52. On October 21, 2019, the County also submitted notification and request to consult letters to twenty-four (24) individuals and organizations pursuant to SB 18. In particular, AB 52 letters were sent via mail to the following California Native American tribes and individuals:

- Andrew Salas, Gabrieleño Band of Mission Indians – Kizh Nation
- Anthony Morales, Gabrieleno Tongva San Gabriel Band of Mission Indians
- Jairo Avila, Fernandeño Tataviam Band of Mission Indians
- Lee Clauss, San Manuel Band of Mission Indians

- Octavio Escobedo, Tejon Indian Tribe

No responses were received from any of the individuals/organizations pursuant to AB 52.

SB 18 letters were sent via mail to the following California Native American tribes and individuals:

- Andrew Salas, Gabrieleño Band of Mission Indians – Kizh Nation
- Anthony Morales, Gabrieleno Tongva San Gabriel Band of Mission Indians
- Charles Alvarez, Gabrielino – Tongva Tribe
- Donna Yocum, San Fernando Band of Mission Indians
- Fred Collins, Northern Chumash Tribal Council
- Gino Altamirano, Coastal Band of the Chumash Nation
- Jairo Avila, Fernandeno Tataviam Band of Mission Indians
- Julie Tumamait-Stenslie, Barbareno/Ventureno Band of Mission Indians
- Julio Quair, Chumash Council of Bakersfield
- Kenneth Kahn, Santa Ynez Band of Chumash Indians
- Lee Clauss, San Manuel Band of Mission Indians
- Gino Altamirano, Coastal Band of the Chumash Nation
- Mark Cochrane, Serrano Nation of Mission Indians
- Mark Vigil, San Luis Obispo County Chumash Council
- Matias Belardes, Juaneno Band of Mission Indians Acjachemen Nation
- Mona Tucker, yak tityu tityu yak tithini-Northern Chumash Tribe
- Robert Dorame, Gabrielino Tongva Indians of California Tribal Council
- Robert L. Gomez, Tubatulabals of Kern Valley
- Robert Martin, Morongo Band of Mission Indians
- Robert Robinson, Kern Valley Indian Community
- Rudy Ortega, Fernandeno Tataviam Band of Mission Indians
- Sandonne Goad, Gabrielino/Tongva Nation
- Sonia Johnston, Juaneno Band of Mission Indians
- Teresa Romero, Juaneno Band of Mission Indians Acjachemen Nation – Romero
- Wayne Walker, Serrano Nation of Mission Indians

A total of five responses were received from the individuals/organizations pursuant to SB 18. The Juaneño Band of Mission Indians Acjachemen Nation-Belardes, Morongo Band of Mission Indians, and the San Manuel Band of Mission Indians indicated they had no concerns regarding the project and did not request consultation. The Santa Ynez Band of Chumash Indians also did not request consultation; however, they indicated that if supplementary literature reveals additional information, or if the scope of work were to change, that they would like to be notified. The Coastal Band of Chumash Indians requested consultation. In response, the County submitted emails on November 21, 2019 and January 8, 2020 to schedule a consultation meeting with the Coastal Band of Chumash Indians, but no response was received. The County also sent a letter via regular mail and email on March 11, 2020 to once again schedule a consultation call with the Coastal Band of the Chumash Nation; however, no response was received.

The AB 52 and SB 18 Native American consultation documentation is provided in Appendix A of this IS.

No tribal cultural resources were identified as a result of consultations that are either listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historical resources.

Future projects to implement some GHG reduction measures contained in the Draft 2045 CAP would involve structural improvements and/or ground disturbing activities that could, depending on their location, result in direct or indirect adverse changes to the significance of a tribal cultural resource. Future projects would be required to comply with existing federal, State, and local regulations, and undergo the County’s discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA, including compliance with AB 52. Such projects could nonetheless result in significant impacts to tribal cultural resources either listed in or eligible for listing in the CRHR or local register and mitigation measures may be needed. Impacts to tribal cultural resources are considered to be potentially significant and will be further evaluated in the EIR.

- ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2021 Housing Element. As a policy document, the Draft 2045 CAP itself would not result in direct impacts to tribal cultural resources.

As mentioned above, no tribal cultural resources were identified as a result of consultations

Future projects to implement some GHG reduction measures contained in the Draft 2045 CAP would involve structural improvements and/or ground disturbing activities that could, depending on their location, result in direct or indirect adverse changes to the significance of a tribal cultural resource. Future projects would be required to comply with existing federal, State, and local regulations, and undergo the County’s discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA, including compliance with AB 52. Such projects could nonetheless result in significant impacts to tribal cultural resources determined by the lead agency in its discretion to be

significant. Impacts to tribal cultural resources are considered to be potentially significant and will be further evaluated in the EIR.

19. UTILITIES AND SERVICE SYSTEMS

| | | | | |
|--|---|--|---|----------------------|
| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

| | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

The Draft 2045 CAP would be a policy document that would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly result in new or expanded facilities. However, Draft 2045 CAP Strategies could promote the construction of new facilities in order to achieve water conservation and recycling goals, energy efficiency goals, renewable energy goals, and waste diversion goals. Some of the measures may result in retrofitting, plumbing and electrical modifications in existing buildings or the installation of new features such as rooftop solar or water recycling systems (Measure E2, Measure E7, Measure E8, Measure E9, and Measure W3). In general, projects implementing Draft 2045 CAP measures are expected to result in beneficial environmental impacts to utilities by reducing water demand, reducing the demand on water recycling facilities, and reducing the demand for natural gas and electrical power through energy efficiency measures and measure to achieve low-carbon energy use (Measures E1 through E4 and Measure E7).

As described above, the Draft 2045 CAP would result in primarily beneficial impacts with regard to the use of water wastewater treatment, electric power, natural gas, stormwater drainage. The Draft 2045 CAP could promote the construction of new facilities such as new water recycling facilities, EV charging stations, composting facilities, and solar energy generation facilities which have the potential to result in environmental impacts. Development of potential future projects supported by Draft 2045 CAP measures would be evaluated on an individual basis once details are known. No changes to General Plan land use designations are proposed. Therefore, the Draft 2045 CAP would not result in an unanticipated increase in density or population growth outside of what was accounted for in the General Plan that could result in increased demand for utilities. As such, implementing the Draft 2045 CAP would not create new demand related to water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities. Impacts to this criterion are considered less than significant. Accordingly, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

| | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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The Draft 2045 CAP includes a number of actions to increase the use of alternate water sources and reduce water consumption. Included within Measure E8 are implementing actions to develop a net zero water ordinance, remove barriers for retrofitting on-site gray water recycling systems, and to partner with LA County

to explore the potential for indirect potable reuse. The performance goals for Measure 8 include the following: 1) 100% of new development is net zero water by 2030; and 2) achieve 80% use of recycled water for agricultural and industrial uses by 2045. Measure E9 which is intended to reduce indoor and outdoor water consumption includes the following performance goals: 1) reduce water consumption by 50% by 2045; 2) adopt a water efficiency ordinance for existing buildings; 3) reduce outdoor landscaping water use by 50% by 2045; and 4) reduce municipal water consumption by 50% by 2045. As demonstrated by the performance metrics, implementation of Measure E8 and E9 would reduce municipal, agricultural, industrial, and outdoor landscaping water use substantially. While the Draft 2045 CAP may promote development that may require water for construction and operation, these developments would be required to comply with the Draft 2045 CAP measures that require net zero water in new development and significant reductions in indoor and outdoor water use for municipal, commercial, and industrial development. Therefore, overall, the strategies and measures proposed in the Draft 2045 CAP would result in reductions in water demand. While the Draft 2045 CAP may result in the development of facilities that would require water for construction and operation, these developments would be required to comply with the adopted Draft 2045 CAP and; therefore, would be required to be net zero water and would not result in additional water demand. Therefore, the Draft 2045 CAP would have a beneficial impact with regard to water supply, impacts would be less than significant this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The Draft 2045 CAP would be a policy document that would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly result in increased demand on wastewater treatment facilities. Increases in the demand for wastewater treatment is generally associated with an increase in population. As described in Section 14, *Population and Housing*, the Draft 2045 CAP would be consistent with the General Plan and the 2021-2029 Housing Element and would not result in population growth outside of what was accounted for in the General Plan. Therefore, the buildout assumptions that inform the measures in the Draft 2045 CAP would be consistent with the population growth planned for in the General Plan and 2021-2029 Housing Element.

The Draft 2045 CAP would include measures to increase water conservation which could result in a slight decrease in the amount of wastewater required to be treated by wastewater treatment providers. Some measures in the Draft 2045 CAP would promote the development of facilities which could include mixed use development, water recycling facilities, or compost processing facilities (Measure E8, Measure W1, and Measure W3). These facilities could result in an increase in demand for wastewater treatment. Development of potential future projects supported by Draft 2045 CAP measures would be evaluated on an individual basis once details are known. Individual proposals for projects supported by CAP measures would be required to undergo project-level CEQA review and disclose any potential impacts related to wastewater treatment and provide mitigation of any significant impacts, if necessary. Impacts are considered less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The Draft 2045 CAP would be a policy document that would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The Draft 2045 CAP does not include specific proposed projects that could directly generate solid waste. The Draft 2045 CAP encourages the reduction of solid waste and includes Strategy 9 to reduce GHG emissions associated with solid waste generation. The intent is to increase solid waste diversion in order to reduce the amount of solid waste placed in landfills. Strategy 9 includes Measure W1, which includes implementing actions to increase organic composting in non-residential buildings and within communities. The performance goal for Measure W1 is to reach an organic diversion rate of 95% by 2045. Measure W2 includes implementing actions in order to increase the diversion of recyclable materials. Measure W3 includes implementing measures to incorporate sustainable waste systems and practices with a goal of decreasing per capita waste by 35% by 2045. The implementation of these measures would reduce solid waste generation within the County and impacts would be beneficial. While the Draft 2045 CAP could indirectly promote the construction of facilities in order to meet water recycling, waste diversion, and renewable energy goals which could result in minor amount of waste generated by project construction and operation, these implementing projects would also be required to comply with the waste management measures proposed in the Draft 2045 CAP. Therefore, adoption of the Draft 2045 CAP would not generate substantial solid waste or impair attainment of solid waste reduction goals and impacts would be less than significant. Accordingly, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As mentioned above, the adoption of the Draft 2045 CAP would result in beneficial impacts with regard to solid waste management and the diversion of waste from landfills. Any new facilities required to support the measures in the Draft 2045 CAP would be required to comply with existing regulations for solid waste management including the permitting requirements of CalRecycle. Requisite compliance with management and reduction statutes and regulations related to solid waste would ensure that the impacts of the Draft 2045 CAP would be less than significant. Accordingly, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

20. WILDFIRE

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|---|--|---|----------------------|
| | <i>Less Than Significant</i> | | |
| <i>Potentially Significant Impact</i> | <i>Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**

According to fire hazard mapping by the California Department of Forestry and Fire Protection (CAL FIRE), as part of the Fire and Resource Assessment Program (FRAP), there are several areas classified as Very High Fire Hazard Severity Zones (VHFHSZ) within the unincorporated County (CAL FIRE 2012). Fire Protection within unincorporated LA County is provided by the Los Angeles County Fire Department (LACoFD). Areas designated as VHFHSZs are located in the Santa Monica Mountains, the Palos Verdes Peninsula, the San Gabriel Mountains, and portions of the Angeles National Forest and Los Padres National Forest. Within the portions of the County designated as VHFHSZs, there are areas designated as Federal Responsibility Areas, State Responsibility Areas, and Local Responsibility Areas. LACoFD responds to wildland fires and urban fires. In recent year, the LACoFD has faced planning issues related to the recent increase in the frequency and severity of wildland fires and changes to urban fire considerations due to increases in the intensity of development and the number of potentially affected populations (LA County 2015). The LA County Fire District’s 2017-2021 Strategic Fire Plan includes strategies to meet three overarching goals related to emergency operations, public service, and organizational effectiveness. Most of the strategies included in this plan are administrative in nature and aimed at building the LACoFD’s capacity to respond to hazards. The Draft 2045 CAP would be a policy document and does not propose any specific projects that could conflict with the Strategic Plan (LA County 2018). All projects that would be indirectly encouraged by the Draft 2045 CAP would be required to be consistent with this plan and any future LACoFD emergency response or planning documents.

As described in Section 9, *Hazards and Hazardous Materials* under criterion f), the Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2021 Housing Element. The Draft 2045 CAP itself does not include any specific projects or proposals that could directly conflict with adopted emergency response or emergency evacuation plans.

The 2019 County of Los Angeles All-Hazards Mitigation Plan does not include specific evacuation routes to be used in the event of an emergency (County of Los Angeles 2019). However, the General Plan includes a map of freeway and highway Disaster Routes, many of which cross through portions of the unincorporated County (Los Angeles County 2015). Depending on the nature of projects implementing Draft 2045 CAP measures, there may be activities that require construction in major roadways or may require the closure of major roadways to facilitate construction activities. If construction activities within major roadways or road closures were required to facilitate projects implementing Draft 2045 CAP measures, then activities could obstruct major roadways and could hinder evacuation procedures.

Although the locations and details of potential projects implementing Draft 2045 CAP measures are not known at the time of this analysis, such projects would be subject to individual project review pursuant to the grading or building permit application process. If, based on such review, it is determined that a specific project could conflict with an emergency response or evacuation plan, then a project-specific traffic control plan would be required to avoid such conflicts. Because any potential impacts to the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact could occur, the impacts associated with implementation of the Draft 2045 CAP would be less than significant. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

LA County is large, and the topography, vegetation and climate vary across the County. Large portions of the undeveloped areas of the County (particularly in the Santa Monica Mountains, Santa Clarita Valley, and Antelope Valley) include the following vegetation types: coastal sage, riparian oak woodlands, and chaparral. Fire risk in LA County is particularly high in the undeveloped areas of the County that are designated as VHFHSZ. These areas typically contain chaparral ecosystems as they contain volatile oils that are particularly flammable. Additionally, chaparral communities are typically located in mountainous areas where the steep terrain can fuel the spread of wildfire (LA County 2021).

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under General Plan land use assumptions with adoption of the 2021-2029 Housing Element. The Draft 2045 CAP does not include any specific projects that could directly expose structures or occupants to wildfire risks. Since no changes to land use designations or specific projects are proposed as part of the Draft 2045 CAP, no new or substantially increased risks associated with wildfires are anticipated.

Projects promoted by the Draft 2045 CAP that could include housing would likely be developed in urban areas which are already developed and not located in undeveloped areas with high fire risk. Some projects implementing Draft 2045 CAP measures such as composting facilities, water recycling facilities, or renewable generation facilities could be located in areas designated as VHFHSZs. Depending on the location and site-specific conditions of implementing projects, such projects could increase the risk of an ignition during construction due to the use of equipment, vehicles, and tools and the storage of fuels and other flammable materials. As described in Section 9, *Hazard and Hazardous Materials*, under criterion g), new development would be required to comply with Title 32 of the Los Angeles County Code (the Los Angeles County Fire Code). Compliance with the County Fire Code would ensure that any new development in the unincorporated County would be in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Compliance with the County Fire Code also would ensure developments that are within mapped VHFHSZs are properly inspected, obtain the applicable permits, and abide by fire prevention techniques. The operation of most facilities that would be promoted by the Draft 2045 CAP would not be expected to substantially increase wildfire risk. Projects also would be required to comply with the California Building Code which identifies building fire safety requirements such as sprinklers, resistance standards, and the clearance of debris and vegetation within a prescribed distance from structures in wildfire hazard areas.

Furthermore, future projects would be required to comply with the General Plan policies, which are intended to reduce the potential for development to be located in high fire hazard areas and encourage mitigation to ensure that developments are built to be fire resistant and have the capacity to ensure proper ingress, egress, and sufficient fire suppression resources onsite:

- Policy S 3.1:** Discourage high density and intensity development in VHFHSZs.
- Policy S 3.2:** Consider climate change implications in planning for FHSZs.
- Policy S 3.3:** Ensure that the mitigation of fire related property damage and loss in FHSZs limits impacts to biological and other resources.
- Policy S 3.4:** Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire-resistant building materials and vegetation.
- Policy S 3.5:** Encourage the use of fire-resistant vegetation that is compatible with the area’s natural vegetative habitats in fuel modification activities.
- Policy S 3.6:** Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in FHSZs.
- Policy S 3.7:** Consider siting and design for developments located within FHSZs, particularly in areas located near ridgelines and on hilltops, to reduce the wildfire risk.
- Policy S 3.8:** Support the retrofitting of existing structures in FHSZs to help reduce the risk of structural and human loss due to wildfire.

Compliance with the LA County Fire Code, California Building Code, and the LA County General Plan would reduce the risk that future projects would be in fire-prone areas and would ensure that developments contain proper fire prevention measures and capacity for fire suppression during construction and operation. While the Draft 2045 CAP itself would not result in any direct impacts to wildfire risk, compliance with these codes and policies would significantly reduce the potential for the Draft 2045 CAP to indirectly result in projects that could expose people to the risks from the spread of wildfire. Requisite compliance with independently enforceable provisions of laws, regulations, plans and standards (including those set forth in the LA County Fire Code, California Building Code, and the General Plan) would assure that the adoption and implementation of the Draft 2045 CAP would result in a less than significant impact relating to the potential exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Accordingly, this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with

adoption of the 2021-2021 Housing Element. The Draft does not include any specific project proposal and therefore, would not result in any direct increases in wildfire risk that would necessitate the installation of fire prevention infrastructure such as fuel breaks, and emergency water sources. Individual proposals for project supported by Draft 2045 CAP measures would be required to undergo project-level review and disclose any potential impacts related to wildfire risk and provide mitigation of any significant impacts, if necessary. If fuel breaks, emergency water sources, or other fire prevention features are required to reduce wildfire risks, then the environmental impacts of those features would be evaluated as part of the project-level CEQA review. In addition to any project-specific fire-related mitigation recommendations, any new development within Los Angeles County (including the unincorporated areas) would be subject to Title 32 of the Los Angeles County Code (the Los Angeles County Fire Code). Compliance with the County Fire Code would ensure that any new development in the unincorporated County would be in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Compliance with the County Fire Code would also ensure developments that are within mapped VHFHSZs are properly inspected, obtain the applicable permits, and abide by fire prevention techniques. Further, any project that would result from the adoption of the Draft 2045 CAP would be required to address fire risks before the potential impact could result. Accordingly, this topic will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

As described under criterion b), the portions of the County that are designated as VHFHSZs are characterized by steep slopes that could create the potential for downslope or downstream flooding, landslides, or runoff. Also as described under criterion b), the Draft 2045 CAP would not directly result in any projects that would increase wildfire risk or alter slopes or drainage patterns in a manner that could increase the risk for post fire downslope or downstream flooding or landslides. Projects implementing Draft 2045 CAP measures could, depending on the location and site-specific conditions of projects, increase the risk of wildfire and post-fire flooding or landslides. As described above, all future projects would be required to comply with the County Fire Code, California Building Code, and the General Plan policies which would reduce the extent to which future projects would increase fire risk. Additionally, future projects would be subject to project-level review where site specific fire risk would be evaluated and mitigation, if necessary, would be applied to address significant impacts. Therefore, the potential for future implementing projects to result in the ignition of a fire which could result in downstream flooding or landslides would be less than significant at the project level as well as cumulatively.

Additionally, As discussed in Section 7, *Geology and Soils*, under criterion a.iv), if projects implementing the CAP measures were to be proposed in susceptible areas, significant effects due to the impacts of landslides could result. However, all new developments would be required to comply with the California Building Code and the County Building Code. Requisite compliance with these codes would ensure that each new development would not result in a potential significant impact either at the project level or cumulatively.

Requisite compliance with applicable laws, regulations, and ordinances would assure that new projects implementing Draft 2045 CAP measures would not result in a significant impact. Therefore, this consideration will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated county wide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2021 Housing Element. The Draft 2045 CAP does not include any specific projects that could directly expose structures or occupants to a significant risk of loss, injury or death involving wildland fires. Since no changes to land use designations or specific projects are proposed as part of the Draft 2045 CAP, no new or substantially increased risks associated with wildfires are anticipated.

Some projects implementing Draft 2045CAP measures such as composting facilities, water recycling facilities, or renewable energy generation facilities could be located in areas designated as VHFHSZs. Depending on the location and site-specific conditions of implementing projects, they could increase the risk of an ignition during project construction due to the use of equipment, vehicles, and tools and the storage of fuels and other flammable materials. As described in Section 9, *Hazard and Hazardous Materials*, under criterion g), and further analyzed above under criterion b), new development would be required to comply with the Los Angeles County Fire Code, the California Building Code, and policies in the General Plan that require that fire prevention measures be incorporated into development and that developments include proper ingress and egress and equipment to respond to fire hazards. Compliance with these requirements would ensure that any new development in the unincorporated County would be in an area with adequate access (for emergency vehicles/personnel) and adequate water and pressure to meet flow standards (in the event that a fire needs to be extinguished). Compliance also would ensure that any future developments that are proposed within mapped VHFHSZs are properly inspected, obtain the applicable permits, and abide by fire prevention techniques. The operation of most facilities that would be promoted by the Draft CAP would not be expected to substantially increase wildfire risk.

For these reasons, any new projects implementing Draft 2045 CAP measures would not result in a significant impact relating to this criterion. Therefore, it will not be analyzed further as part of the CEQA process for the Draft 2045 CAP.

References

LA County Fire Department (LACoFD), 2018. 2017-2021 Strategic Plan. URL: <https://fire.lacounty.gov/wp-content/uploads/2019/09/LACoFD-Strategic-Plan-2017-2021.pdf> . June 21, 2018.

LACoFD, 2021. LA County Fire Department 2021 Strategic Plan. URL: https://osfm.fire.ca.gov/media/lyulfm3z/2021_lac_fireplan.pdf . June 9, 2021.

California Department of Forestry and Fire Protection (CAL FIRE), 2011. Fire Hazard Severity Zones in Local Responsibility Areas (LRA). Forest Resource Assessment Program. Map. Scale 1:150,000.

Los Angeles County, 2015. Los Angeles County General Plan 2035. Chapter 12, Safety Element. Disaster Routes.

21. MANDATORY FINDINGS OF SIGNIFICANCE

| | | | | |
|--|---|--|---|----------------------|
| | <i>Potentially Significant Impact</i> | <i>Less Than Significant Impact with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|--|---|----------------------|

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

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As disclosed in Section 4, Biological Resources under criterion a), projects implementing Draft 2045 CAP measures have the potential to result in impacts to candidate, sensitive, or special status species such as Swainson’s hawk and Arroyo toad. Impacts to candidate, sensitive, and special status species are considered to be potentially significant and will be further evaluated in the EIR. Similarly, the potential for the Draft 2045 CAP to result in substantial adverse effects on sensitive natural communities (evaluated in Section 4, Biological Resources under criterion b) is considered to be potentially significant and will be evaluated further in the EIR. Section 4, Biological Resources also identified the potential for projects implementing Draft 2045 CAP measures to impact federally protected wetlands (evaluated in criterion c), interfere with the movement of migratory fish, native resident, or wildlife species (evaluated under criterion d), or convert oak woodlands or other unique native woodlands (evaluated under criterion e) to be potentially significant. Therefore, the potential for the Project to result in impacts to these biological resources will be evaluated further in the EIR.

As analyzed in Section 5, Cultural Resources, the Draft 2045 CAP has the potential to impact historical resources and archaeological resources. As analyzed in Section 13, the Draft 2045 CAP has the potential to impact tribal cultural resources. Therefore, potential impacts related to cultural resources and tribal cultural resources will be evaluated further in the EIR.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

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The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with adoption of the 2021-2029 Housing Element. According to CEQA Guidelines Section 15130(e), if a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further

analyze that cumulative impact. Potential cumulative impacts would result if the Draft 2045 CAP promotes growth in the County in excess of what was accounted for in the General Plan and the 2021-2029 Housing Element. The potential for cumulative effects will be considered in the EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The Draft 2045 CAP would be a policy document intended to reduce unincorporated countywide GHG emissions and would support development already allowed under the General Plan land use assumptions with the 2021-2029 Housing Element. The Draft 2045 CAP does not include any specific projects that could directly result in adverse effects on human beings. However, projects implementing Draft 2045 CAP measures could result in potentially significant impacts as disclosed throughout this Initial Study. Therefore, the potential for Air Quality, Noise, and Transportation and other potentially significant impacts to result in a potentially significant impact to human beings will be evaluated further in an EIR.

APPENDIX A

Tribal Consultation

A.3 Newspaper Notifications

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| Invoice | B3541827 | LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN (DRAFT 2045 GPN GOVT PUBLIC NOTICE 1875 ACTON AGUA DULCE WEEKLY NEWS 12/30/2021 | 159.30 |
| | | \$ 10.55 * 15.100 Inch * 1 Ins * 1 Cols | 159.30 |
| | | 85% Discount : 135.41 | |
| | | Commission : 23.90 | |

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Please Pay: **159.30**

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I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the assistant principal clerk of the printer of the Acton Agua Dulce News, (Acton Agua Dulce Weekly News) a newspaper of general circulation, printed and published weekly in the Community of Acton, county of Los Angeles, and which newspaper has been adjudicated a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under date of February 8, 1989, Case Number 9391; that the notice, of which the annexed is a printed copy has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

Dec. 30, 2021

in the year *2021*

I certify (or declare) under penalty of perjury that the foregoing is true and correct

M. Gayle Joyce
Supervisor

5/12-30-2021
pg 8

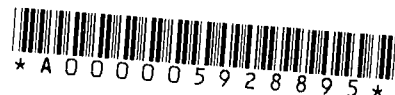
NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME:

Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION : Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION : The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS : The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is re-

quired. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues:

Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD : The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE : This Notice of Preparation and the Initial Study are available for view online at: https://planning.lacounty.gov/climate. NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit https://planning.lacounty.gov/site/climate/meetings-hearings/ to register for the meeting.

12/30/21
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| Invoice | B3541828 | LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN (DRAFT 2045 GPN GOVT PUBLIC NOTICE 4980 ANTELOPE VALLEY PRESS 12/30/2021 | 604.93 |
| | | \$ 44.71 ** 13.5300 Inch * 1 Ins * 1 Cols | 604.93 |
| | | 85% Discount : 514.19 | |
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DECLARATION

I am a resident of Los Angeles County, over the age of eighteen years and not a party to any or interested in the matter noticed.

The notice, of which the annexed is a printed copy appeared in the:

ANTELOPE VALLEY PRESS

On the following dates:

December 30, 2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

3rd day of January 2022

Handwritten signature of Debbie Yerkes

Signature
Debbie Yerkes

3541828

NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING
PROJECT NAME:
Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP)
PROJECT LOCATION: Unincorporated areas of Los Angeles County
The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION: The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS: The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD: The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE: This Notice of Preparation and the Initial Study are available for view online at: https://planning.lacounty.gov/climate. NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit https://planning.lacounty.gov/site/climate/meetings-hearings/ to register for the meeting. 12/30/21 CNS-3541828#

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| Invoice | B3541829 | LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN (DRAFT 2045 GPN GOVT PUBLIC NOTICE 26760 GARDENA VALLEY NEWS 12/30/2021 | 432.73 |
| | | \$ 15.88 ** 27.2500 Inch * 1 Ins * 1 Cols | 432.73 |
| | | 85% Discount : 367.82 | |
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AFFP
113664 3541829

Affidavit of Publication

STATE OF CALIFORNIA } SS
COUNTY OF LOS ANGELES

I am a citizen of the United States; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principle clerk of the printer of Gardena Valley News, a newspaper of general circulation, published ONCE WEEKLY in the city of Gardena, County of LOS ANGELES, which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of LOS ANGELES, State of California under the date of November 13, 1958, Case Number 192381; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

December 30, 2021

That said newspaper was regularly issued and circulated on those dates.

SIGNED:



Gardena Valley News

Subscribed to and sworn by me this 30th day of December 2021.

00004398 00113664

GV-CNSB
P.O. BOX 60460
LOS ANGELES, CA 90060

NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION : Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION : The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS : The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD : The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE : This Notice of Preparation and the Initial Study are available for view online at: <https://planning.lacounty.gov/climate>. NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST . Please visit <https://planning.lacounty.gov/site/climate/meetings-hearings/> to register for the



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| Invoice | B3541830 | LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN (DRAFT 2045 GPN GOVT PUBLIC NOTICE 130871 GLENDALE INDEPENDENT 12/30/2021 | 156.47 |
| | | \$ 16.47 * 1 Cols * 9.5 Inches * 1 Inserts | 156.47 |
| | | 85% Discount : 133.00 | |
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DECLARATION

I am a resident of Los Angeles County, over the age of eighteen years and not a party to any or interested in the matter noticed.

The notice, of which the annexed is a printed copy appeared in the:

GLENDALE INDEPENDENT

On the following dates:

December 30, 2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

10th day of January 2022

Handwritten signature of Debbie Yerkes

Signature
Debbie Yerkes

3541830

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NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION: Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected parties, interested organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION: The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning (DRP) released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving advisory comments from stakeholders, DRP determined the need to substantially review and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2015, 2020, 2035, and 2045; new GHG emissions targets for 2025, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and policies in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to assess the Draft 2045 CAP's GHG reduction estimates; a consolidation of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance by using the CAP per CEQA Guidelines, Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS: The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: AIR QUALITY; Biological Resources; Cultural Resources; Noise; Initial Cultural Resources; PUBLIC REVIEW PERIOD: The County invites interested parties to provide written comments on the Draft 2045 CAP's GHG reduction estimates about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Tudy Hui, Supervising Regional Planner, Los Angeles County, Department of Regional Planning, 350 West Temple Street, 11th Floor, Los Angeles, CA 90012. For email submittal of your comment letter, send to: climate@planning.lacounty.gov. Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of those topics in the PEIR. All written comment letters must be included in an appendix to the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE: This Notice of Preparation and the Initial Study are available for view online at: https://planning.lacounty.gov/2045-cap. NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit https://planning.lacounty.gov/submittals/meetings/hearings to register for the meeting. 12/30/21 CNS-3541830 GLENDALE INDEPENDENT

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| Invoice | B3541831 | LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN (DRAFT 2045 GPN GOVT PUBLIC NOTICE 36000 LA OPINION 12/29/2021 | 1,318.09 |
| | | ONLINE CHARGE | 0.59 |
| | | \$ 54.41 * 1 Cols * 24.214285 Inches * 1 Inserts | 1,317.50 |
| | | 85% Discount : | 1,120.38 |
| | | Commission : | 197.71 |

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AMOUNT \$1,318.09
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BUDGET & ACCTG _____

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STATE OF CALIFORNIA

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of La Opinión a newspaper of general circulation, printed and published daily in the city of Los Angeles, county of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of July 28, 1969, Case Number: 950176; that the notice, of which the annexed is a printed copy, has been published in each regular and not in any supplement thereof on the following dates, to wit:

December 29

all in the year 2021

I certified (or declared) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

29 day of December, 2021

Rosa Berumen

Signature

AVD #017 Controlled
Rev. 03/12



* A 0 0 0 0 5 9 1 4 8 1 5 *

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AVISO DE PREPARACIÓN DE UN BORRADOR DE PROGRAMA DE INFORME DE IMPACTO AMBIENTAL Y REUNIÓN DEL ALCANCE PÚBLICO DEL PROYECTO: Plan de Acción Climática de 2045 (Borrador 2045 CAP) del Condado de Los Angeles
UBICACIÓN DEL PROYECTO: Áreas no incorporadas del Condado de Los Angeles
El Condado de Los Angeles (Condado) es la Agencia Líder de conformidad con la Ley de Calidad Ambiental de California (CEQA, por sus siglas en inglés) y sus regulaciones de implementación, las Directrices de CEQA. El Condado tiene la intención de preparar un Programa de Informe de Impacto Ambiental (PEIR, por sus siglas en inglés) para el Plan de Acción Climática de 2045 (CAP) que sería un componente de implementación del Elemento de Calidad del Aire del Plan General del Condado de Los Angeles. El Condado ha preparado este Aviso de Preparación para proporcionar a las Agencias Responsables, Agencias Fiduciarias,

agencias federales potencialmente afectadas, organizaciones, y otras partes interesadas con información correspondiente a este proyecto y sus efectos ambientales potenciales, y solicitar su opinión sobre el alcance y contenido del PEIR.
DESCRIPCIÓN DEL PROYECTO: El Borrador 2045 CAP requerirá una Enmienda al Plan General para reemplazar el Plan de Acción Climática de la Comunidad del Condado de Los Angeles (2020 CCAP), que es un componente de implementación del Elemento de Calidad del Aire del Plan General del Condado de Los Angeles. A principios de 2020, el Departamento de Planificación Regional ("DRP", por sus siglas en inglés) publicó un Borrador de Debate Público del Anteproyecto 2045 CAP (Borrador de Debate Público). Después de recibir comentarios importantes de las partes interesadas, DRP determinó la necesidad de revisar y actualizar sustancialmente el Borrador de Debate Público. Las revisiones incluirán un inventario de emisiones y GHG para 2018; nuevas pronósticos de emisiones para 2030, 2035, y 2045; nuevos objetivos de emisiones GHG para 2030, 2035, y 2045; una serie revisada de estrategias, medidas y acciones de reducción de GHG en respuesta a los comentarios públicos para que sea más claro, específico, factible, y cuantificable; un apéndice de modelado técnico para explicar los estimados de reducción de GHG del Borrador 2045 CAP; una consideración de las preocupaciones de justicia y equidad; y una nueva lista de verificación de consistencia de revisión de desarrollo para permitir que los proyectos optimicen el cumplimiento de CEQA para el uso del CAP, según la Sección 15183.5 de las Directrices de CEQA.
POSIBLES EFECTOS AMBIENTALES: El Condado ha preparado un Estudio Inicial, que está siendo distribuido con este Aviso de Preparación. Debido a que el Estudio Inicial indica que el proyecto propuesto puede tener un impacto significativo en el medio ambiente, los recursos, el Condado ha determinado que se requiere la preparación de un PEIR. El PEIR se enfocará en los efectos potencialmente significativos del proyecto, discutirá brevemente cualquier efecto que se considere no significativo. El PEIR incluirá una evaluación más detallada de los siguientes problemas ambientales: Calidad del Aire, Recursos Biológicos, Recursos Culturales, Ruido, Recursos Culturales
el 13 de enero de 2022 a las 5:00 p.m. PST. Por favor visite <https://planning.lacounty.gov/site/climate/meetings-hearings/> para registrarse en la reunión. 12/29/21
CNS-3541831#
LA OPINIÓN

Recurso Cultural
Tribales.
PERIODO DE REVISIÓN PÚBLICA: El Condado invita a las partes interesadas a proporcionar comentarios por escrito en cuanto a sus preocupaciones específicas acerca de los posibles efectos potenciales del proyecto. El Condado solicita que cualquier Agencia Responsable o Fiduciaria que responda a este aviso lo haga de manera consistente con la Sección 15082(b) de las Directrices Estatales de CEQA. Un periodo de revisión de 30 días comienza el 3 de enero de 2022, y finaliza el 1 de febrero de 2022: Debido a los límites de tiempo exigidos por la ley estatal, por favor envíe su respuesta por escrito al correo electrónico lo antes posible, antes del 1 de febrero de 2022 a las 5:00 p.m. Por favor incluya su nombre y dirección para toda la correspondencia escrita. Envíe sus comentarios por escrito a la siguiente dirección: Thuy Hua, Supervisor de Planificación Regional, Departamento de Planificación Regional del Condado de Los Angeles, 320 West Temple Street, 13vo. Piso, Los Angeles, CA 90012
Para enviar una carta de comentarios por correo electrónico, envíela a: climate@planning.lacounty.gov
Cualquier comentario proporcionado debe identificar los temas específicos de preocupación ambiental y su razón para sugerir el estudio de estos temas en el PEIR. Todos las cartas de comentarios escritos/correo electrónico serán incluidos en un apéndice en el Borrador PEIR y los contenidos considerados en la preparación del PEIR.
DOCUMENTO DE DISPONIBILIDAD Y SITIO WEB DEL PROYECTO: Este Aviso de Preparación y el Estudio Inicial están disponibles para verse en línea en: <https://planning.lacounty.gov/climate>.
AVISO DE REUNIÓN DE ALCANCE PÚBLICO: El Condado llevará a cabo una reunión de alcance público para solicitar comentarios orales y escritos de las partes interesadas en el alcance y contenido del PEIR. Todas las partes interesadas están invitadas a asistir a la reunión de alcance para ayudar en identificar los problemas a ser abordados en el PEIR. La reunión de alcance incluirá una breve presentación del alcance del proyecto a ser abordado en el PEIR, un resumen del proceso del PEIR, y proporcionará a los asistentes una oportunidad de brindar información al alcance y contenido del PEIR. La reunión de alcance se llevará a cabo en línea a través de Zoom

Clasificados I de La Opinión

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| Invoice | B3541832 | LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN (DRAFT 2045 GPN GOVT PUBLIC NOTICE 40180 LOS ANGELES SENTINEL 12/30/2021 | 761.83 |
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| | | 85% Discount : 647.56 | |
| | | Commission : 114.27 | |

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AMOUNT \$761.83
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BUDGET & ACCTG _____

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| Please make check payable to: Daily Journal Corporation | | | Payment: | 0.00 |
| | | | Please Pay: | 761.83 |
| To ensure proper credit please write your account number 1124120350 on your check. Also, please detach and return this portion of the invoice with your payment. For account support, please email: anthony_gutierrez@dailyjournal.com or call: 2132295584. | Invoice Date 12/30/2021 | Invoice Number B3541832 | Customer Number 1124120350 | |
| | |  * A 0 0 0 0 0 5 9 0 8 3 5 5 * | | |
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Telephone (323) 299-3800 / Fax (323) 299-3896

Thuy Hua
L.A. CO REGIONAL PLANNING
320 W TEMPLE ST, RM 1383
LOS ANGELES, CA - 90012

CNS#: 3541832

PROOF OF PUBLICATION

(2015.5 C.C.P.)

State of California)
County of LOS ANGELES) ss

Notice Type: GPN - GOVT PUBLIC NOTICE

Ad Description:
Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP)

I am a citizen of the United States and a resident of the State of California; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer and publisher of the LOS ANGELES SENTINEL, a newspaper published in the English language in the city of LOS ANGELES, and adjudged a newspaper of general circulation as defined by the laws of the State of California by the Superior Court of the County of LOS ANGELES, State of California, under date of 08/25/1938, Case No. 430764. That the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

12/30/2021

Executed on: 12/30/2021
At Los Angeles, California

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Thuy Hua

Signature



NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME : Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION : Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION : The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public

comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS : The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD : The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner

Los Angeles County
Department of Regional
Planning 320 West Temple
Street, 13th Floor Los
Angeles, CA 90012 For email
submittal of your comment
letter, send to:
climate@planning.lacounty.g
ov Any comments provided
should identify specific topics
of environmental concern and
your reason for suggesting
the study of these topics in
the PEIR. All written
comment letters/emails will
be included in an appendix in
the Draft PEIR and the
contents considered in the
preparation of the PEIR.
DOCUMENT AVAILABILITY
AND PROJECT WEBSITE :
This Notice of Preparation
and the Initial Study are
available for view online at:
[https://planning.lacounty.gov/
climate](https://planning.lacounty.gov/climate). NOTICE OF PUBLIC
SCOPING MEETING: The
County will conduct a public
scoping meeting to solicit oral
and written comments from
interested parties on the
scope and content of the
PEIR. All interested parties
are invited to attend the
scoping meeting to assist in
identifying issues to be
addressed in the PEIR. The
scoping meeting will include a
brief presentation of the
project scope to be
addressed in the PEIR, a
summary of the PEIR
process, and will provide
attendees with an opportunity
to provide input to the scope
and content of the PEIR. The
scoping meeting will be held
online via Zoom on January
13, 2022 at 5:00 p.m. PST .
Please visit
[https://planning.lacounty.gov/
site/climate/meetings-
hearings/](https://planning.lacounty.gov/site/climate/meetings-hearings/) to register for the
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| | | \$ 15.87 ** 8.5000 Inch * 1 Ins * 2 Cols | 269.79 |
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THE MALIBU TIMES

24955 Pacific Coast Hwy #A 102
Malibu, California 90265
(310) 456-5507

PROOF OF PUBLICATION (2015.5 C.C.P.)

STATE OF CALIFORNIA,
COUNTY OF LOS ANGELES,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

The Malibu Times

a newspaper of general circulation, printed and published Every Thursday

in the City of Malibu County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the

date of December 1, 19 88

Case Number C704330; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

12/30

all in the year 20 21.
I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Malibu

California, this 30 day of DEC, 20 21

Serese Gelbman

Signature



This space is for the County Clerk's Filing Stamp

Proof of Publication of

#3541833 GPN

NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME:

Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION: Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION: The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS: The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues:

Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD: The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your

Case Number C704330; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

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Dated at Malibu

California, this 30 day of DEC, 20 21

Seresee Gelbman
Signature

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be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit <https://planning.lacounty.gov/site/climate/meetings-hearings/> to register for the meeting.
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MALIBU TIMES

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| | | 85% Discount : | 485.67 |
| | | Commission : | 85.71 |

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BUDGET & ACCTG _____

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| Please make check payable to: Daily Journal Corporation | | | Payment: | 0.00 |
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| To ensure proper credit please write your account number 1124120350 on your check. Also, please detach and return this portion of the invoice with your payment. For account support, please email: anthony_gutierrez@dailyjournal.com or call: 2132295584. | Invoice Date 1/19/2022 | Invoice Number B3541834 | Customer Number 1124120350 | |
|  * A 0 0 0 0 0 5 9 2 1 2 3 7 * | | | | |
| Government Advertising - Division 1124 | Amount Due | | | 571.38 |
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FILE NO. 3541834

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of PASADENA STAR-NEWS, a newspaper of general circulation for the City of Pasadena, by the Superior Court of the County of Los Angeles, State of California, on the date of June 22, 1927, Case Number 225647. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

12/30/2021

I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 12th day of January, 2022.



Signature



* A 0 0 0 0 0 5 9 2 0 1 4 2 *

Legal No. 0011509205

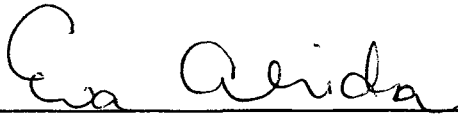
NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION: Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION: The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning (DRP) released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS: The County has prepared an Initial Study which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD: The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your

I am a citizen of the United States, and a resident of the county aforesaid. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of PASADENA STAR-NEWS, a newspaper of general circulation for the City of Pasadena, by the Superior Court of the County of Los Angeles, State of California, on the date of June 22, 1927, Case Number 225647. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

12/30/2021

I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 12th day of January, 2022.



Signature

LP15-05/17/17

1

replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS : The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD : The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hoa, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor, Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE : This Notice of Preparation and the Initial Study are available for view online at: <https://planning.lacounty.gov/climate>. NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit <https://planning.lacounty.gov/site/climate/meetings-hearings/> to register for the meeting.
12/30/21
CNS-3541834#
PASADENA STAR NEWS
#11509205

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| Invoice | B3541835 | LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN (DRAFT 2045 GPN GOVT PUBLIC NOTICE 63280 SAN GABRIEL VALLEY TRIBUNE 12/29/2021 | 571.28 |
| | | ONLINE CHARGE | 23.53 |
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BUDGET & ACCTG _____

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FILE NO. 3541835

PROOF OF PUBLICATION (2015.5 C.C.P.)

STATE OF CALIFORNIA County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of SAN GABRIEL VALLEY TRIBUNE, a newspaper of general circulation for the City of West Covina, by the Superior Court of the County of Los Angeles, State of California, on the date of September 10, 1957, Case Number 684891. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

12/29/2021

I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 2nd day of February, 2022.



Signature



Legal No. 0011509207

NOTICE OF PREPARATION OF A DRAFT PROGRAM

ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME:

Los Angeles County 2045 Climate
Action Plan (Draft 2045 CAP)
PROJECT LOCATION:

Unincorporated areas of Los
Angeles County The County of Los
Angeles (County) is the Lead
Agency pursuant to the California
Environmental Quality Act (CEQA)
and its implementing regulations,
the CEQA Guidelines. The County
intends to prepare a Program
Environmental Impact Report
(PEIR) for the 2045 Climate Action
Plan (CAP) that would be an
implementing component of the Air
Quality Element of the Los Angeles
County General Plan. The County
has prepared this Notice of
Preparation to provide Responsible
Agencies, Trustee Agencies,
potentially affected federal
agencies, organizations, and other
interested parties with information
regarding this project and its
potential environmental effects,
and to solicit your input on the
scope and content of the PEIR.

PROJECT DESCRIPTION: The
Draft 2045 CAP would require a
General Plan Amendment to
replace the Los Angeles County
Community Climate Action Plan
(2020 CCAP), which is an
implementing component of the Air
Quality Element of the Los Angeles
County General Plan. In early 2020,
the Department of Regional
Planning ("DRP") released a Public
Discussion Draft of the Draft 2045
CAP (Public Discussion Draft).
After receiving significant
comments from stakeholders, DRP
determined the need to
substantially revise and update the
Public Discussion Draft. Revisions
will include an updated GHG
emissions inventory for 2018; new
emissions forecasts for 2030, 2035,
and 2045; new GHG emissions
targets for 2030, 2035, and 2045; a
revised suite of GHG reduction
strategies, measures, and actions in
response to public comments to be
more clear, specific, feasible, and
quantifiable; a technical modeling
appendix to explain the Draft 2045
CAP's GHG reduction estimates; a
consideration of environmental
justice and equity concerns; and a
new development review
consistency checklist to allow
projects to streamline CEQA
compliance for by using the CAP,
per CEQA Guidelines
Section 15183.5.

POTENTIAL ENVIRONMENTAL EFFECTS:

The County has prepared an Initial
Study, which is being circulated
with this Notice of Preparation.
Because the Initial Study indicates
that the proposed project may have
a significant impact to the
environment in one or more
resource areas, the County has
determined that preparation of a
PEIR is required. The PEIR will
focus on the potentially significant
effects of the project, and briefly
discuss any effects found not to be
significant. The PEIR will include a
more detailed evaluation of the
following environmental issues:

Air Quality Biological Resources
Cultural Resources Noise Tribal

Cultural Resources PUBLIC
REVIEW PERIOD : The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner, Los Angeles County Department of Regional Planning, 320 West Temple Street, 13th Floor, Los Angeles, CA 90012. For email submittal of your comment letter, send to: climate@planning.lacounty.gov. Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR.

DOCUMENT AVAILABILITY AND PROJECT WEBSITE : This Notice of Preparation and the Initial Study are available for view online at: <https://planning.lacounty.gov/climate>.

NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022, at 5:00 p.m. PST. Please visit <https://planning.lacounty.gov/site/climate/meetings-hearings/> to register for the meeting.

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CNS-3541835#

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Proof of Publication

(2015.5 C.C.P.)

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Argonaut, a newspaper of general circulation, printed and published weekly in the City of Argonaut, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of February 19, 1988, modified October 5, 1976, Case Number C47170; that the notice, of which the annexed is a printed copy (set in type no smaller than nonpareil), has published in each regular and entire issue of said newspaper and not been in any supplement thereof on the following dates; to wit:

December 30, 2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Argonaut, California

This 30th day of December 2021



Ann Turrietta, Legal Clerk, Los Angeles County, California

00004882 00043655

Curtis Small
CNSB(Calif. Newspaper Service Bur.)
P.O. Box 60460
Los Angeles, CA 90060



NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION : Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION : The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS : The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD : The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency, responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE : This Notice of Preparation and the Initial Study are available for view online at: https://planning.lacounty.gov/climate/ NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit https://planning.lacounty.gov/site/climate/meetings-hearings/ to register for the

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| | | \$ 20.61 * 15.555 Inch * 1 Ins * 2 Cols | 641.16 |
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FILE NO. 3541837
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(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of THE DAILY BREEZE, a newspaper of general circulation, printed and published in the City of Torrance*, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of County of Los Angeles, State of California, under the date of June 10, 1974, Case Number SWC7146. The notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

12/30/2021

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Dated at Torrance, California
On this 30th day of December, 2021.

Pauline Fernandez

Signature

*The Daily Breeze circulation includes the following cities: Carson, Compton, Culver City, El Segundo, Gardena, Harbor City, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Long Beach, Manhattan Beach, Palos Verdes Peninsula, Palos Verdes, Rancho Palos Verdes, Rancho Palos Verdes Estates, Redondo Beach, San Pedro, Santa Monica, Torrance and Wilmington.

Legal No. **0011509814**

NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME : Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION : Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION : The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS : The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal



Cultural Resources PUBLIC
REVIEW PERIOD : The County
invites interested parties to provide
written comments as to your
specific concerns about the project's
potential environmental effects.
The County requests that any
Responsible or Trustee Agency
responding to this notice do so in a
manner consistent with Section
15082(b) of the State CEQA
Guidelines. A 30-day review period
starts on January 3, 2022, and ends
on February 1, 2022. Due to the time
limits mandated by state law,
please send your written response
to the address or email below at the
earliest possible date, but no later
than February 1, 2022, at 5:00 p.m.
Please include your name and
address for all written
correspondence. Please send
written comments to the following
address: Thuy Hua, Supervising
Regional Planner, Los Angeles
County Department of Regional
Planning 320 West Temple Street,
13th Floor Los Angeles, CA 90012
For email submittal of your
comment letter, send to:
climate@planning.lacounty.gov
Any comments provided should
identify specific topics of
environmental concern and your
reason for suggesting the study of
these topics in the PEIR. All
written comment letters/emails will
be included in an appendix in the
Draft PEIR and the contents
considered in the preparation of the
PEIR. DOCUMENT
AVAILABILITY AND PROJECT
WEBSITE : This Notice of
Preparation and the Initial Study
are available for view online at:
<https://planning.lacounty.gov/climate>
te. NOTICE OF PUBLIC SCOPING
MEETING: The County will
conduct a public scoping meeting to
solicit oral and written comments
from interested parties on the scope
and content of the PEIR. All
interested parties are invited to
attend the scoping meeting to assist
in identifying issues to be addressed
in the PEIR. The scoping meeting
will include a brief presentation of
the project scope to be addressed in
the PEIR, a summary of the PEIR
process, and will provide attendees
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to the scope and content of the
PEIR. The scoping meeting will be
held online via Zoom on January 13,
2022 at 5:00 p.m. PST . Please visit
<https://planning.lacounty.gov/site/climate/meetings-hearings/>
to register for the meeting.
12/30/21
CNS-3541837#
THE DAILY BREEZE

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THE SIGNAL
25060 Avenue Stanford #141
Valencia, CA 91355

Proof of Publication
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years and not a party to or interested in the action for which the attached notice was published. I am a principal clerk of THE SIGNAL, which was adjudged a newspaper of general circulation on March 25, 1988 (Case number NVC 15880) for the City of Santa Clarita and State of California. Attached to this Affidavit is a true and complete copy as was printed and published on the following date(s):

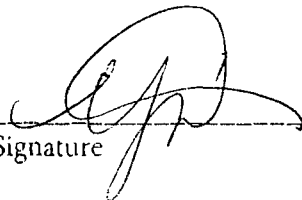
12/29

All in the year 20 21

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Santa Clarita, California, this

29th day of December 20 21


Signature



NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME :

Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP). PROJECT LOCATION : Unincorporated areas of Los Angeles County. The County of Los Angeles (County) is the Lead Agency pursuant to the

California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION : The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA

compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS : The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD : The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE : This Notice of Preparation and the Initial Study are available for view online at: <https://planning.lacounty.gov/climate>. NOTICE

OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit <https://planning.lacounty.gov/site/climate/meetings-hearings/> to register for the meeting.
12/29/21
CNS-3541838#
THE SIGNAL (SANTA CLARITA)

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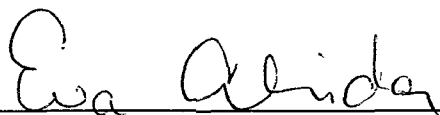
STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of WHITTIER DAILY NEWS, a newspaper of general circulation for the City of Whittier, by the Superior Court of the County of Los Angeles, State of California, on the date of October 10, 1960, Case Number 369393. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

12/30/2021

I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 12th day of January, 2022.


Signature



Legal No. 0011509202

NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING PROJECT NAME: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) PROJECT LOCATION: Unincorporated areas of Los Angeles County The County of Los Angeles (County) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations, the CEQA Guidelines. The County intends to prepare a Program Environmental Impact Report (PEIR) for the 2045 Climate Action Plan (CAP) that would be an implementing component of the Air Quality Element of the Los Angeles County General Plan. The County has prepared this Notice of Preparation to provide Responsible Agencies, Trustee Agencies, potentially affected federal agencies, organizations, and other interested parties with information regarding this project and its potential environmental effects, and to solicit your input on the scope and content of the PEIR. PROJECT DESCRIPTION: The Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS: The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Huo, Supervising Regional Planner, Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of

County of Los Angeles

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12/30/2021

I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 12th day of January, 2022.

Signature

LP15-05/17/17

1

Draft 2045 CAP would require a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (2020 CCAP), which is an implementing component of the Air Quality Element of the Los Angeles County General Plan. In early 2020, the Department of Regional Planning ("DRP") released a Public Discussion Draft of the Draft 2045 CAP (Public Discussion Draft). After receiving significant comments from stakeholders, DRP determined the need to substantially revise and update the Public Discussion Draft. Revisions will include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions in response to public comments to be more clear, specific, feasible, and quantifiable; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP, per CEQA Guidelines Section 15183.5. POTENTIAL ENVIRONMENTAL EFFECTS: The County has prepared an Initial Study, which is being circulated with this Notice of Preparation. Because the Initial Study indicates that the proposed project may have a significant impact to the environment in one or more resource areas, the County has determined that preparation of a PEIR is required. The PEIR will focus on the potentially significant effects of the project, and briefly discuss any effects found not to be significant. The PEIR will include a more detailed evaluation of the following environmental issues: Air Quality Biological Resources Cultural Resources Noise Tribal Cultural Resources PUBLIC REVIEW PERIOD: The County invites interested parties to provide written comments as to your specific concerns about the project's potential environmental effects. The County requests that any Responsible or Trustee Agency responding to this notice do so in a manner consistent with Section 15082(b) of the State CEQA Guidelines. A 30-day review period starts on January 3, 2022, and ends on February 1, 2022. Due to the time limits mandated by state law, please send your written response to the address or email below at the earliest possible date, but no later than February 1, 2022, at 5:00 p.m. Please include your name and address for all written correspondence. Please send written comments to the following address: Thuy Hua, Supervising Regional Planner Los Angeles County Department of Regional Planning 320 West Temple Street, 13th Floor Los Angeles, CA 90012 For email submittal of your comment letter, send to: climate@planning.lacounty.gov Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR. DOCUMENT AVAILABILITY AND PROJECT WEBSITE: This Notice of Preparation and the Initial Study are available for view online at: https://planning.lacounty.gov/climate. NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR. The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR. The scoping meeting will be held online via Zoom on January 13, 2022 at 5:00 p.m. PST. Please visit https://planning.lacounty.gov/site/climate/meetings-hearings/ to register for the meetings. 12/30/21 CNS-3541839# WHITTIER DAILY NEWS #11509202



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PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

I am a citizen of the United States and resident of the State of California. I am over the age of eighteen years, and not party or interested in the above-entitled matter. I am the principal clerk of the publisher of:

The Acorn Newspapers
30423 Canwood Street, Suite 108
Agoura Hills, California 91301-4316

A newspaper of general circulation, printed and published weekly in the City of Agoura, Malibu Judicial District, County of Los Angeles, and which newspaper has been adjudicated a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of April 6, 2000, Case Number BS061493. That the notice of which the Annexed is a printed copy has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates to-wit:

December 30,

in the year of 2021.

I certify or declare under penalty of perjury that the foregoing is true and correct.

Dated at Agoura Hills, California

this 30th day of December 2021.

Sincerely,



Laura Rosas
Legal Advertising

COUNTY CLERK FILING STAMP

PROOF OF PUBLICATION

NOTICE OF PREPARATION

Climate Action Plan (Draft 2045 CAP)

**NOTICE OF PREPARATION
OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT
REPORT**

AND PUBLIC SCOPING MEETING

PROJECT NAME: Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP)

PROJECT LOCATION: Unincorporated areas of Los Angeles County

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- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

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Please send written comments to the following address:

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

For email submittal of your comment letter, send to: climate@planning.lacounty.gov

Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the PEIR. All written comment letters/ emails will be included in an appendix in the Draft PEIR and the contents considered in the preparation of the PEIR.

DOCUMENT AVAILABILITY AND PROJECT WEBSITE: This Notice of Preparation and the Initial Study are available for view online at: <https://planning.lacounty.gov/climate>.

NOTICE OF PUBLIC SCOPING MEETING: The County will conduct a public scoping meeting to solicit oral and written comments from interested parties on the scope and content of the PEIR. All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the PEIR.

The scoping meeting will include a brief presentation of the project scope to be addressed in the PEIR, a summary of the PEIR process, and will provide attendees with an opportunity to provide input to the scope and content of the PEIR.

The scoping meeting will be held online via Zoom on **January 13, 2022 at 5:00 p.m. PST.**

Please visit <https://planning.lacounty.gov/site/climate/meetings-hearings/> to register for the meeting.

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| Request for Supplies and Services | | | | | | Phone Number: 213-893-0060 | | Fax Number: 213-974-6384 | | <input type="checkbox"/> Agreement <input type="checkbox"/> Non-Agreement | | | | | | | |
| Department Name: Regional Planning | | | | Division/Section: 720/83 | | e-mail: klai@planning.lacounty.gov | | | | Cash Discount Terms: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Net 30 | | | | | | | |
| Requestor's Name: Kai Hung Lai | | | | | | Delivery Location: (Address, Suite #, City, State and Zip Code): 320 W. Temple Street Room 1383, Los Angeles, CA 90012 | | | | | | Request For Supplies or Services Received | | | | | |
| Budget Information | | | | | | ORDER INFORMATION | | | | | | | | | | | |
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| Peter Tam <small>Digitally signed by Peter Tam Date: 2021.12.28 12:57:25 -08'00'</small> | | | | | FIXED ASSET: CHECK (1) ONLY | | | | | Yes <input type="checkbox"/> No <input type="checkbox"/> | | | | | | | |
| Signature/Approval - Division/Section: Oscar Chica <small>Digitally signed by Oscar Chica Date: 2021.12.28 10:05:59 -08'00'</small> | | | | | Terms: <input type="checkbox"/> Yes <input type="checkbox"/> No | | F.O.B. Delivered: | | Source of Quotation: | | Purchasing Agent: | | Date Ordered: | | | | |
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| Signature/Approval - Chief: | | | | | Address: | | | | | Vendor Phone No.: | | | | | | | |
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A.4 Scoping Meeting Materials



Los Angeles County

Department of Regional Planning

Public Scoping Meeting for the Proposed **Los Angeles County 2045 Climate Action Plan**

January 13, 2022

Agenda

- **Introductions**

- Thuy Hua, Supervising Regional Planner, DRP
- Iris Chi, Regional Planner, DRP
- Cameron Robertson, Regional Planner, DRP
- Janna Scott, Director, ESA
- Brian Schuster, Senior Managing Associate, ESA

- **Project Description**

- **California Environmental Quality Act (CEQA) Process**
- **Purpose of CEQA Scoping meeting**
- **CEQA Environmental Issue Areas**
- **Project Timeline**
- **Scoping Comments & Public Review**



Project Description

What is a Climate Action Plan?

- Comprehensive roadmap that outlines the specific activities that an agency will undertake to reduce greenhouse gas emissions.



Project Description

The 2045 Climate Action Plan (CAP) would:

- Amend the Los Angeles County General Plan and replace the 2020 Community Climate Action Plan with the 2045 CAP



Project Description

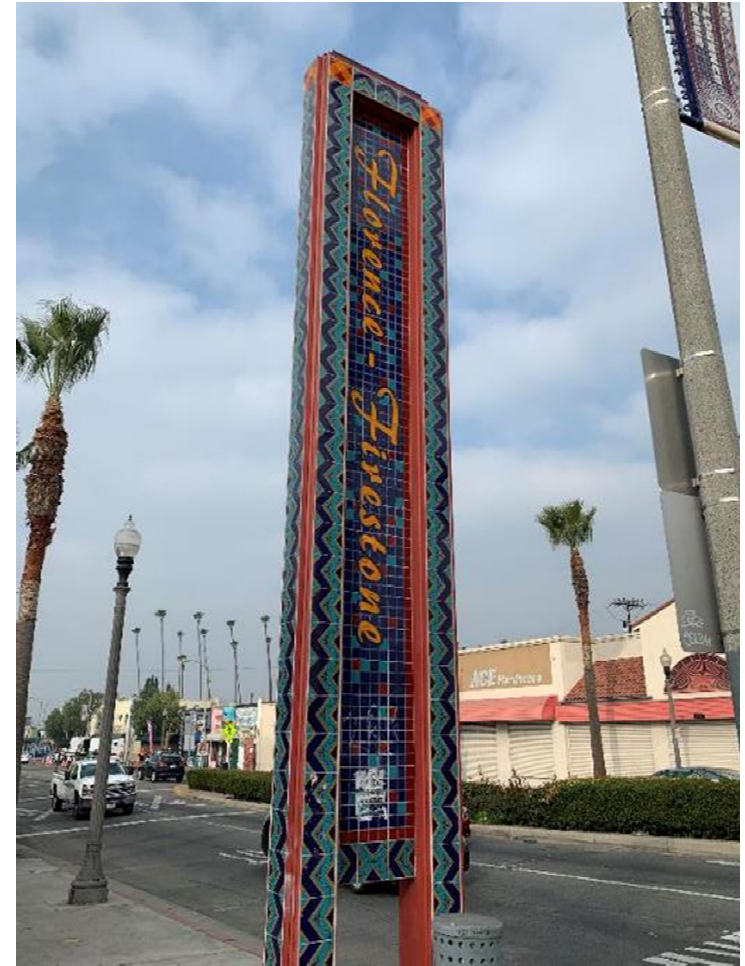
The 2045 Climate Action Plan would (continued):

- Include a new 2018 greenhouse gas (GHG) emission inventory
- Include emissions forecasts and targets for 2030, 2035, and 2045
- Update the GHG emission reduction strategy for unincorporated areas of the County with equity at the forefront through these sectors:



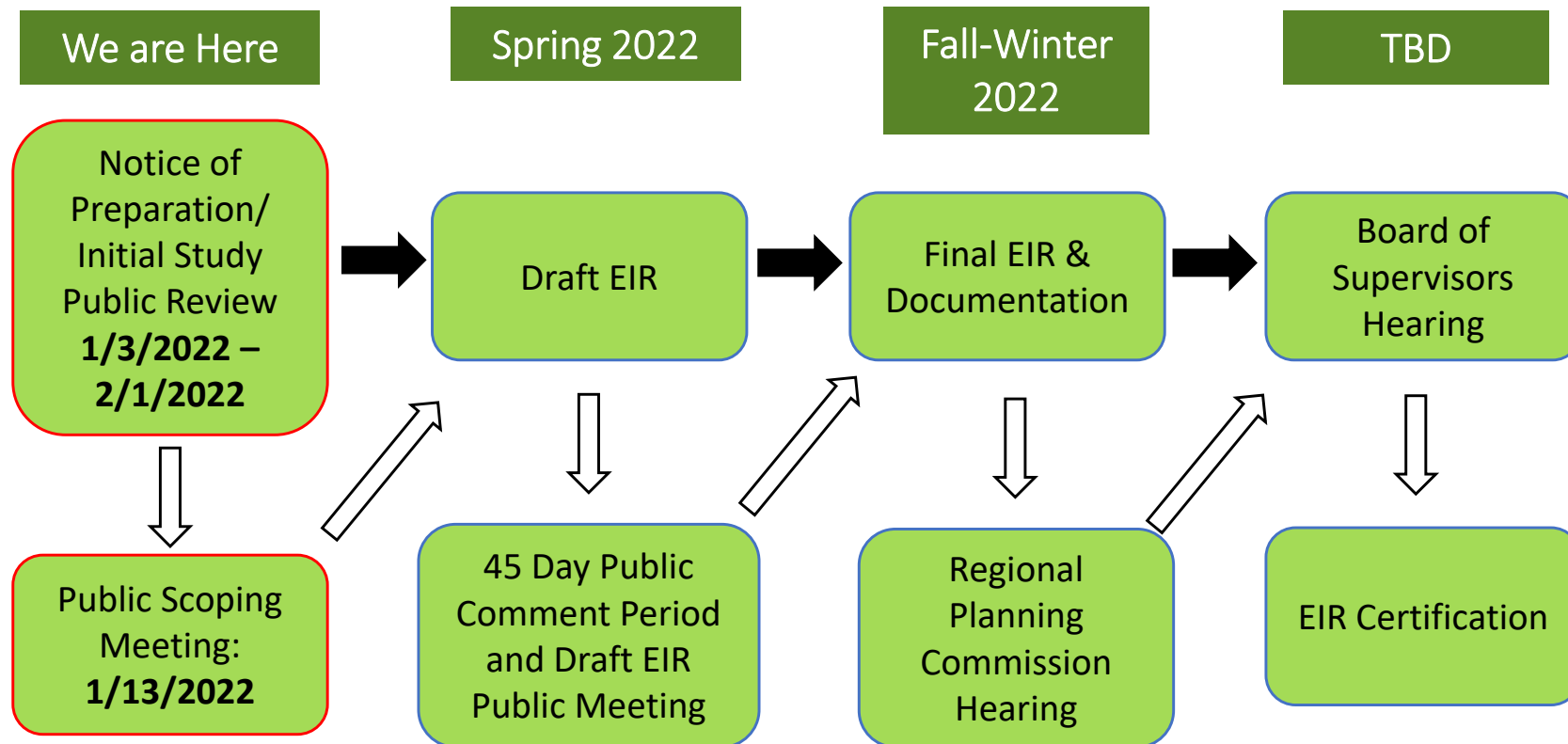
CEQA Process

- Required by law for all discretionary actions
- Informs public & decision makers
- Feasible ways to avoid, reduce, and/or mitigate impacts
- Considers alternatives
- Discloses significant & unavoidable impacts
- Opportunity to comment on the environmental issues



CEQA EIR Process & Schedule

EIR Milestones



Purpose of CEQA Scoping Meeting



- Receive information on the proposed project elements
- Review findings of the Notice of Preparation/Initial Study (NOP/IS)
- Obtain comments on specific environmental topics
- Inform the scope & nature of the Environmental Impact Report (EIR) analysis prepared under the California Environmental Quality Act (CEQA)

CEQA Environmental Issues Areas

Environmental Issue Areas Determined to have a Less Than Significant Impact:

- Aesthetics
- Agriculture / Forestry
- Energy
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Population/Housing
- Public Services
- Recreation
- Transportation
- Utilities/Service Systems
- Wildfire



CEQA Environmental Issues Areas

Environmental Issue Areas with Potential Impacts:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources



Project Timeline and Public Comment

Jan 3, 2022 -
Feb 1, 2022

- Notice of Preparation Comment Period

Spring/Summer
2022

- Draft 2045 Climate Action Plan
- Draft EIR

Fall-Winter 2022

- Draft 2045 Climate Action Plan
- Final EIR
- Public Hearings



NOP Location and Contact Information

The NOP and Initial Study are available online at:

<https://planning.lacounty.gov/site/climate/los-angeles-county-cap>

Written comments are due by: **February 1, 2022 at 5:00 p.m.**

Please direct all responses to:

Thuy Hua

Los Angeles County Department of Regional Planning

320 W Temple St 13th Floor

Los Angeles, CA 90012

Email: climate@planning.lacounty.gov

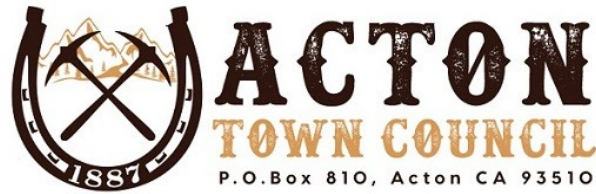
Project website: planning.lacounty.gov/climate



Comment Period & Conclusion



A.5 Scoping Input Received



February 1, 2022

Thuy Hua
Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Electronic transmission of 42 pages to:
climate@planning.lacounty.gov and
THua@planning.lacounty.gov

Subject: Acton Town Council Scoping Comments Regarding the Climate Action Plan.

Reference: Solicitation of Public Input on the Scope Program Environmental Impact Report for the Climate Action Plan Initiated January 3, 2022.

Dear Ms. Hua;

The Acton Town Council ("ATC") appreciates this opportunity to provide scoping comments on the Climate Action Plan ("CAP"). These comments are submitted within the 30-day time limit established by the Department of Regional Planning ("DRP") for the Scoping Interval that began on January 3, 2022; therefore, they are deemed timely filed.

As a preliminary comment, the ATC is concerned that the scope of the CAP as described in the Initial Study ("IS") is vague and therefore troubling. For instance, in the "Community" and "Zoning Designation" sections on page 1, the IS states that the CAP is applicable only in unincorporated areas of the County and will be implemented only in unincorporated areas of the County. Yet, page 2 states that the CAP will provide Greenhouse Gas ("GHG") emission reductions for regional GHG Reduction Actions ("GRAs") and page 41 states that the CAP establishes County-wide GHG emission reduction targets to achieve carbon neutrality by 2045. Additionally, the IS relies heavily on the Sustainability Plan (which is a County-wide document) and even the first CAP "strategy" that is identified in the IS refers to "Lead by Example". All of this indicates that the CAP will serve as a County-wide benchmark and will have a "County-wide" focus rather than an "unincorporated" focus. This is of substantial concern because it means that CAP goals, policies, and strategies will **not** be geared toward the rural communities that must comply with them and which comprise most of the County's unincorporated area; rather, they will be tailored to the "urban form" and urban land uses that predominate within the cities of Los Angeles

County. We see this trend clearly on page 4 of the IS which identifies Strategy 5 and directs the "transition of existing buildings to all-electric." This may be a perfectly reasonable approach in urban areas where temperatures do not drop much below freezing in winter, however it is a dangerous proposition for rural mountain communities where snow and freezing temperatures are common and where electrical service is highly unreliable (particularly over the last few years)¹. Therefore, "transitioning" existing buildings in these areas to all-electric service **will** lead to catastrophic results particularly in winter.

This example demonstrates the importance of clearly establishing that the CAP is only applicable to unincorporated areas, thus its scope is limited to circumstances that pertain to unincorporated areas. In other words, county-wide GHG emission targets, and the emphasis on regional GRAs and the county-wide Sustainability Plan have no place in the CAP. This is critical, because the rural communities which comprise the largest unincorporated area and are most affected by the CAP have development profiles, environmental circumstances, and land use policies that have nothing in common with the rest of the County. In other words, CAP strategies that are appropriate for cities and urban populations are neither suitable for, nor transferable to, rural unincorporated areas within the County; accordingly, the CAP must be specifically tailored to unincorporated communities and not used as a tool to decarbonize the entire County. Unfortunately, none of this is reflected in the IS. In fact, the IS demonstrates that the CAP will not include policies that are appropriate to rural unincorporated areas because it clarifies that the County intends to use the CAP to "Lead by Example" and show urban cities how to force change regardless of extant circumstances. It seems that the County is singularly disinterested in tailoring CAP strategies to rural unincorporated areas or ensuring that CAP policies are appropriate for the unincorporated communities which they govern.

Another general concern with the IS is that it consistently minimizes and erroneously trivializes the significantly adverse environmental impacts that CAP implementation will create. The IS downplays every environmental factor that it addresses by stating that the CAP is merely a "policy document" and claiming that it will not directly result in any impacts because it merely supports development already approved under the General Plan and because projects that implement the CAP will undergo CEQA review in the future. It is clear from these statements that the County does not grasp the scope, purpose, or intent of CEQA. First, adopted County policies *always* create environmental impacts because they direct County activities, ordinances, and decisions, and thereby clearly mandate change;

¹ For example, many Acton residents were without electrical power throughout the recent Thanksgiving holiday. Southern California Edison cut power to Acton residents on the day before Thanksgiving and did not restore service for two days. There was no reason for it; meteorological data taken for the area demonstrate that wind speeds were quite low. Yet, SCE cut power to Acton residents for 48 hours anyway and ruined their Thanksgiving; SCE did not restore power until late Friday afternoon. For more information on this incident, please see the comments submitted by the ATC to the California Public Utilities Commission provided as Attachment A.

that is why General Plans, Climate Action Plans, and other plans are always required to undergo CEQA review. The IS errs in declaring that the CAP will not directly result in impacts because if that were true, then the CAP itself would serve no purpose and its policies and targets would be utterly meaningless. Clearly, this is not the case because the IS states the County intends to use the CAP to create substantial changes in the County and thus "lead by example". Accordingly, it is categorically incorrect for the IS to claim that, as a mere "policy document", the CAP will not directly result in any impacts. Second, the CAP does not support development already approved by the General Plan; in fact, it radically alters adopted General Plan policies by mandating full decarbonization of every sector within every element of the adopted General Plan. The current General Plan does not envision full decarbonization and it never contemplated the environmental impacts of full decarbonization, so the IS factually errs in stating that the CAP merely supports development already approved under the General Plan. Third, it is a multifold violation of CEQA for the County to sidestep its obligation to conduct environmental review of CAP policies simply because the projects that implement these policies will undergo CEQA review at a later date; specifically:

- CEQA requires environmental review of CAP policies and targets and it explicitly mandates that the County consider alternative targets that will reduce environmental impacts while still achieving broad project objectives. So, for example, CEQA requires the County to consider alternatives to the CAP's 100% decarbonization target which will reduce significant environmental impacts while still achieve important decarbonization objectives. Simply put, CEQA requires the County to address the environmental impacts of CAP policies and CAP targets and consider alternative policies and targets *before the CAP is adopted*. This requirement is not satisfied by merely conducting CEQA reviews of individual projects which are implemented in the future to achieve CAP targets.
- CEQA requires the County to consider the cumulative effects of implementing CAP policies, and it does not permit the County to "silo" its environmental impact analysis by individually considering CAP implementation projects on a stand-alone basis and thereby ignore the extent to which these impacts are cumulatively considerable.
- CEQA does not permit a Lead Agency to defer CEQA review, yet that is precisely the outcome that will result if the County fails to conduct an adequate CEQA review of CAP policies simply because the individual projects that will eventually implement these CAP policies will someday undergo environmental review.

Accordingly, the ATC respectfully disagrees with IS conclusions regarding potentially significant adverse environmental effects of the CAP. Contrary to what the IS asserts, the CAP has the potential to create many significant adverse environmental impacts, thus CAP strategies and targets warrant proper environmental review.

In the interest of brevity, the remaining ATC comments are provided below and arranged according to topic.

The CAP Environmental Review Must Consider Alternatives to Decarbonization Targets, Waste Diversion Rates, and Other Strategies.

The IS asserts that, though not required by law, the CAP will achieve "carbon neutrality" by 2045 (page 1) and that this target is "county-wide" (page 41). Additionally, the IS asserts that the CAP will incorporate waste diversion strategies, water conservation measures, etc. (though it does not appear to identify actual targets for any of these strategies). Among other things, CEQA requires that the County identify alternatives to each of these CAP strategies (including "no project" alternatives) and assess the environmental impacts of each alternative and the climate change benefits that each alternative provides. These CEQA-mandated alternative analyses are critically important because they identify opportunities for reducing project impacts while still achieving broad project objectives.

To ensure a legally sufficient CEQA review, the County will have to consider various GHG emission reduction strategies, including those that do not achieve carbon neutrality by 2045. The IS indicates that the CAP environmental review will consider ""high and low" emission scenarios, and it mentions a "business as usual" forecast, but these terms are vague and not defined. The GHG reduction target alternatives that the County must consider to ensure a legally sufficient CAP environmental review (aside from the 2045 carbon neutral target) include a "no project" alternative (which is perhaps what the IS means by "business as usual") as well as a GHG emission reduction target that complies with current regulations but goes no further. Another GHG reduction alternative that should be considered is one which establishes a 2045 target that is midway between carbon neutrality and whatever is mandated by law. And, for each GHG reduction alternative, the County must identify the potentially significant adverse environmental impacts that it will create (including an analysis of the total acreage of solar panels, energy storage facilities, and transmission infrastructure required to achieve it) as well as the climate change reduction potential that it will provide so that the County can meaningfully determine whether the climate change benefits achieved by each alternative truly outweigh the adverse environmental impacts that it creates.

In a similar manner, the County must consider various alternatives to the waste diversion strategy, the water conservation strategy, and all the other CAP strategies identified in the IS to ensure an adequate CEQA review. For example, the ATC understands that the County is required to meet minimum waste diversion requirements over the next few decades, so an alternative that the county must consider in the CAP environmental review is one which achieves these regulatory requirements but goes no further. Another alternative that should be addressed is one that achieves diversion rates that are midway between the

minimum required by law and the actual target established by the CAP (which the IS fails to identify). And, for each alternative, the County must identify the adverse environmental impacts that it will create (such as the extent and location of all the new facilities that will be required to achieve them) and quantify the climate change benefit that it will provide so that a meaningful determination can be made regarding whether the benefits of each alternative truly outweigh its impacts. This is the only way to ensure a legally sufficient CEQA review.

The IS Improperly Ignores the Environmental Impacts of Expanding Utility Scale Solar Facilities in Rural Communities to Achieve CAP Decarbonization Goals.

According to the IS, a centerpiece of the CAP will be the full decarbonization of energy usage within 23 years through the expansion of renewable energy (particularly solar energy). According to the IS, there is no regulatory driver for achieving 100% decarbonization; it is merely something that the County wishes to accomplish. It is estimated that at least 43,000 acres of solar panels will be required to fully decarbonize the unincorporated areas of Los Angeles County²; accordingly, and to ensure compliance with the California Environmental Quality Act ("CEQA"), the environmental document prepared for the CAP must, *at a minimum*, consider the impacts of this solar panel development as well as the energy storage and transmission facilities that they will require for feasible operation. However, the IS makes it clear that the GHG emission reduction targets established by the CAP will actually be "county-wide" because the County wants to "lead by example"; this means that the CAP itself will be the foundation upon which county-wide

² According to the California Energy Commission ("CEC"), Los Angeles County consumed 65649.87 GWhr of electricity in 2020 (<https://ecdms.energy.ca.gov/elecbycounty.aspx>). Since unincorporated residents comprise approximately 10% of the population in Los Angeles County, unincorporated electrical consumption is approximately 6565 GWh per year. Since 30% of this consumption is already renewable, 70% (or 4596 GWhr) will have to be served by new solar facilities just to decarbonize the existing energy use profile (i.e., it does not account for the electrification of all future buildings and all existing buildings) According to the National Renewable Energy Laboratory ("NREL"), utility scale solar requires 3.4 acres per GWhr·year (<https://www.nrel.gov/docs/fy13osti/56290.pdf>), which means that more than 15,624 acres of new solar facilities will be required just to de-carbonize existing electrical consumption in unincorporated Los Angeles County. To achieve other CAP decarbonization goals (transportation electrification, building electrification, electric cars, etc.) it is estimated that twice as much solar facilities will be required; this brings the total up to 31,250 acres. And, according to the Southern California Association of Governments ("SCAG"), population in the County will grow by 20% by 2045, (https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579) so the actual amount of new solar facilities required to achieve CAP goals in unincorporated Los Angeles County will be at least 37,500 acres. And, since "storage losses" of 10% and "transmission losses" of 5% are common, the actual number of acres required to fully decarbonize unincorporated Los Angeles County will be at least 43,000 acres.

decarbonization is achieved. As such, the environmental document prepared for the CAP must address the environmental impacts of achieving this county-wide decarbonization outcome. Specifically, CEQA demands that the CAP environmental document consider the impacts of developing more than 430,000 acres (or 672 square miles) of new solar panels as well as the energy storage and transmission facilities that these facilities will require to decarbonize all of Los Angeles County³. In other words, because the County will use the CAP as the primary tool for advancing decarbonization throughout the County, the CAP environmental review must consider the environmental impacts of achieving this county-wide decarbonization outcome.

Notably, the CAP's decarbonization goal can be achieved in one of two ways: either by directing renewable energy generation and storage to occur locally so that power is sustainably created where it is used (typically referred to as "distributed generation") or by directing renewable energy generation and storage to occur remotely in massive solar farms that are typically located in the desert and require the construction of extensive high voltage transmission lines through Very High Fire Hazard Severity Zones to deliver power to urban "load". It is certainly feasible to achieve the CAP's decarbonization goals via distributed generation because 1470 square miles of the County are already developed⁴ and can therefore easily accommodate 672 square miles of solar panels that are required to achieve CAP decarbonization goals county-wide.

Obviously, the environmental impacts of directing renewable energy generation and storage to occur locally will be relatively low because it will only affect the existing "built" environment (since it relies on existing roof tops using existing distribution lines and substations). Accordingly, a CAP that directs the expansion of distributed generation to achieve its renewable energy target can be reasonably deemed to create "less than

³ The CEC reports that Los Angeles County consumed 65649.87 GWhr of electricity in 2020 (<https://ecdms.energy.ca.gov/elecbycounty.aspx>). Assuming that 30% of this consumption is already renewable, 70% (or 45955 GWhr) will have to be served by new solar facilities just to decarbonize the County's existing energy use profile (i.e., it does not account for the electrification of all future buildings and all existing buildings). This will require more than 156,000 acres of new solar panels according to NREL data which reports that 3.4 acres of solar panels are required to produce a GWhr per year of solar energy (<https://www.nrel.gov/docs/fy13osti/56290.pdf>). This will double to more than 300,000 to accommodate all other CAP decarbonization goals (transportation electrification, elimination of natural gas for heating and cooking, electric vehicles, etc.). And, factoring the 20% population growth that SCAG projects for 2045 increases the number of acres of solar panels to achieve CAP goals county wide to more than 370,000. Factoring in the 10% storage loss and the 5% transmission loss that is always associated with renewable generation and transmission increases the total required solar panel area to more than 430,000 acres.

⁴ According to Page 90 of the Sustainability Plan, 64.4% of the County is classified as "natural area" which means that 35.6% is developed. And, according to page 15, Los Angeles County is 4,084 square miles in area. Together, these statistics demonstrate that more than 1,400 square miles of Los Angeles County is developed (.356 x 4084 = 1454).

significant" environmental impacts. However, if the CAP does not direct the development of distributed generation to achieve its decarbonization goals, then the environmental document will be required to consider the substantially adverse environmental impacts of developing more than 430,000 acres of remote utility scale generation and storage facilities in the pristine deserts of Southern California to achieve county-wide decarbonization as well as the new transmission facilities that will be required to serve these remote solar "farms". Under this circumstance, the impacts that will have to be addressed in the CAP environmental review are diverse, substantial, and they include (but are not limited to) aesthetics, transmission line wildfire ignitions, biological resource destruction⁵, farmland conversion, open space conversion, dust storms, valley fever, and increased asthma and respiratory insults in the rural communities of the Antelope Valley.

For example, the Audubon Society has clearly shown that utility-scale solar facilities in broad, open space areas that are rich with wildlife habitat (like the Antelope Valley) is particularly deadly to birds because they mistake the masses of solar panels as water bodies and the birds then collide with the panels when they try to land. Birds are also killed by the transmission lines that serve these utility scale facilities. That is why the Audubon Society supports "rooftop solar" over utility scale solar in open space areas as "ecologically ideal because it doesn't disrupt any habitat, but rather makes use of already-built space that would otherwise not go to productive use."⁶

The health impacts of the ambient dust generated by the construction and operation of utility scale solar farms are also of significant concern, particularly in the Antelope Valley where (according to health statistics compiled by Los Angeles County) the County's highest childhood asthma rates and COPD rates are found⁷ (actually, the incidence of these diseases in the Antelope Valley are among the highest in the nation). All of these existing health concerns will be substantially exacerbated by development of the additional utility scale solar facilities that will be required to achieve CAP decarbonization goals. CEQA does not permit the County to ignore these health impacts or any other adverse impacts posed by the 430,000 acres of solar panels that will be required to achieve CAP decarbonization goals county-wide.

⁵ The County is fully aware of the destruction to biological resources, habitat, and corridors that are created by remote solar farms in the Antelope Valley desert area. For example, solar project in the Antelope Valley have destroyed hundreds of Joshua Trees that are supposed to be "protected", and the Silverado project approved by the County destroyed large areas of burrowing owl habitat and relocated many burrowing owls with only limited success. Solar farms have fenced off tens of thousands of acres of desert lands, eliminated entire wildlife corridors, dislocated wildlife, and destroyed extensive habitats.

⁶ <https://www.audubon.org/news/solar-power-and-birds>

⁷ "Los Angeles County Indicators of Health" found here: http://publichealth.lacounty.gov/ha/docs/2015LACHS/KeyIndicator/PH-KIH_2017-sec%20UPDATED.pdf

The County seems to be at least dimly aware that CAP implementation could result in extensive new solar farms in the Antelope Valley. For instance, the IS affirms that the CAP will "incentivize" the development of solar facilities in rural areas (at 10, 15) and it specifically identifies the Antelope Valley as an area that will be targeted for such programs. (10, 12, 14, 15, 20). However, the CAP must avoid "incentivizing" the development of solar facilities in rural areas by directing the expansion of new solar facilities in developed areas only. If the CAP does not include such directives, then the County is *obligated* to address the environmental impacts of the 430,000 acres of remote utility scale solar facilities that will be required to achieve CAP decarbonization goals county wide.

Remarkably, the IS makes it clear that the County intends to *ignore* all the adverse environmental impacts posed by the 430,000 acres of solar panels that will result from CAP implementation because the IS only identifies Air Quality, Noise, Biological Resources, and Cultural Resources as environmental factors that will be considered in the CAP environmental review. Worse yet, the IS indicates that even these impacts will be given scant consideration. For example, neither the "Cultural Resources" section nor the "Tribal Cultural Resources" section give any consideration to the potential cultural resource impacts of the 430,000 acres of new solar panels that will result from CAP implementation county wide; these impacts are completely ignored. It is entirely implausible to presume that the installation of 430,000 acres of solar panels will not have any impacts on cultural or tribal cultural resources, yet that is precisely the premise adopted by the IS. The *only way* to ensure that CAP decarbonization goals do not impact cultural resources is for the CAP to direct new renewable resources toward developed areas; if the CAP does not include such directions, then the "Cultural Resources" section and the "Tribal Cultural Resources" section of the CAP environmental document must properly address the impacts of destroying 430,000 acres of land to achieve CAP decarbonization goals county wide. The "Air Quality" section of the IS is similarly deficient because it completely ignores the terrible dust storms and attendant valley fever concerns that will be created by expanding utility scale solar farms in the Antelope Valley to achieve CAP decarbonization goals. The IS section on "Biological Resources" is even worse: it indicates that the impacts of remote utility scale solar facilities will not be analyzed in the CAP environmental document at all because in the future, individual utility scale solar projects will "undergo site-specific review and CEQA analysis to analyze and mitigate potential significant impacts to candidate, sensitive, or special status species and their habitats". This approach violates CEQA in several ways. First, CEQA prohibits Lead Agencies from deferring analysis of potentially significant biological resource impacts, so the CEQA document prepared for the CAP must address "head on" the 430,000 acres of remote utility scale generation that will result from implementation of CAP decarbonization goals county wide if they are not met via distributed generation. Second, analyzing the environmental impacts of each utility scale solar project individually ignores the extent to which they pose cumulatively considerable impacts, thus it utterly violates CEQA.

The ATC cannot fathom why the IS completely ignores the environmental impacts of securing the renewable energy resources that will be required to achieve CAP decarbonization goals; perhaps the County is simply unaware of the enormous quantity of solar panels that these renewable energy resources will require. If this is the case, then this letter provides material factual evidence demonstrating that at least 43,000 acres of new solar panels will be required to achieve CAP decarbonization goals in unincorporated Los Angeles County, and at least 430,000 acres will be required to fully decarbonize Los Angeles County. Unless the CAP specifically directs these new solar facilities to be constructed in developed areas, they will cause significant adverse environmental impacts that must be addressed in the CAP environmental document. Anything less will constitute a gross violation of CEQA.

The IS Wrongly Eliminates Aesthetic Impacts from the List of Environmental Factors that Must be Considered in the CAP Environmental Analysis.

According to the IS, the County has concluded that CAP implementation will not result in any "Aesthetic Impacts" and thus does not intend to consider aesthetic impacts in the CAP environmental document. This is a mistake. The following paragraphs identify the errors noted in the IS, and demonstrate that aesthetic impacts must be fully addressed in the CAP environmental document.

Page 10 of the IS states "Other potential projects promoted by Draft 2045 CAP Strategies could include composting facilities, renewable energy generation facilities, or water recycling facilities which could be located in more rural areas of the County and, depending on the design and location, create a greater level of visual contrast compared with existing conditions." The ATC agrees that converting 430,000 acres in rural areas into solar farms and substantially expanding waste handling and composting facilities in rural areas will create a substantially "greater level of visual contrast in the rural areas where they will be constructed"; the waste facilities will also contribute significantly to odor problems as well. The Antelope Valley is already home to more than 50,000 acres of solar farms and two enormous dumps that serve the County of Los Angeles, so any incremental increase in such facilities in the Antelope Valley will be significant. Yet, and despite this clear acknowledgment that the CAP will pose significant aesthetic impacts in rural areas, the IS nonetheless declares that aesthetic impacts will be "less than significant" and it explicitly omits them from consideration in the CAP environmental document. This constitutes a grievous CEQA error which can only be rectified by ensuring that the CAP environmental review properly considers the significant adverse environmental impacts that CAP implementation will have in rural areas including (but not limited to) those pertaining to renewable energy generation and waste reduction.

Page 11 of the IS states "utility-scale solar energy generation projects would be required to comply with the Renewable Energy Ordinance (REO), which regulates ground-mounted solar projects to address community concerns and minimize environmental impacts. The REO requires that any ground-mounted solar project obtain a Minor Conditional Use Permit or Conditional Use Permit. Both permits require that ground-mounted solar be analyzed for negative visual impacts and the potential for the facility to impact the viewshed (LA County Office of the County Counsel, 2016). Compliance with the REO and the enforcement of conditions listed as part of the REO would ensure that the potential for small-scale and utility-scale solar energy generation projects to impact visual resources would be minimized." This statement is factually incorrect. The REO does **not** "ensure that the potential for utility scale solar energy projects to visual resources would be minimized" and County Counsel is flat out wrong to claim that it does. This is because the REO does not address impacts of utility scale renewable energy projects to visual resources; to the contrary, the REO only requires a "landscape buffer" in small areas which are never maintained so on the rare occasion when a few straggling bushes are planted, they quickly die and blow away. More importantly, the REO does not consider the cumulative aesthetic impacts of the 50,000+ acres of solar farms already in the Antelope Valley, and it will never address the cumulative aesthetic impacts of adding 430,000 acres of additional solar farms required to achieve CAP goals county-wide. Equally important, none of the CUPs issued for solar farms in the Antelope Valley have *ever* considered the cumulative impacts of the 50,000+ acres of solar farms that have already torn up the Antelope Valley, caused unbearable dust problems and turned entire sections of the desert into a sea of black glass. Therefore, the IS materially errs in declaring that the REO will adequately address the aesthetic impacts of all the new solar facilities required to achieve CAP decarbonization goals.

Page 12 of the IS states "The compliance of future projects with the General Plan and County Code would reduce the potential impact of future projects on scenic vistas." This statement is categorically false. Neither the General Plan nor the County Code ever contemplated 430,000 acres of new solar panels or even 43,000 acres of new solar panels because neither are founded on the full decarbonization profile that is established by the CAP. Because the CAP greatly expands decarbonization programs far beyond what was ever considered in the General Plan or is now contemplated by the County Code, it is a gross error for the County to declare that scenic vista impacts of new solar facilities developed to achieve CAP decarbonization goals will be reduced by merely complying with the General Plan and Zoning Code. Therefore, the IS materially errs in declaring that compliance with the General Plan and County Code is sufficient to protect scenic vistas from the massive solar farms that will result from CAP implementation.

Page 12 of the IS also states "some projects could result in more noticeable visual contrast and changes, especially if projects are located in more rural areas of the County such as solar projects proposed in the Antelope Valley" but "solar energy generation projects

would be required to comply with the REO, which includes conditions to reduce the visual impacts of solar projects". The extent to which this statement trivializes the conversion of at least 43,000 acres, and in reality, more than 430,000 acres of desert land into solar farms is *stunning*, as is its vague and understated acknowledgement that these solar farms will create a "more noticeable visual contrast". The IS then compounds this grossly insupportable statement by wrongly declaring that the REO will reduce these visual impacts. Nothing could be further from the truth; the "landscape buffer" that the REO requires along small sections of a solar farm (which consists of a few straggling shrubs that provide no screening, are never maintained, and die within a few months anyway) does nothing to "reduce visual impacts of solar projects" and it will certainly not address the cumulative aesthetic impacts of the 43,000 - 430,000 additional acres of solar panels that will be required to meet CAP goals. Therefore, the IS materially errs in concluding that CAP implementation will not result in significant visual impacts.

Page 14 of the IS addresses whether the CAP will substantially degrade existing visual character because of the bulk or scale of the project, and the IS concludes that this concern will be less than significant because "The potential for utility-scale or other sized solar energy generation projects to be proposed in more rural areas such as the Antelope Valley would continue to be analyzed on a project-specific basis for purposes of CEQA." Notably, this statement does not support a finding of "less than significant" aesthetic impacts; in fact, it seems to suggest the opposite because it acknowledges that the CAP will result in new large utility scale solar projects in the Antelope Valley and that such projects warrant CEQA review (albeit in the future). On that basis alone, the County has a statutory obligation to conclude that the CAP poses potentially significant aesthetic impacts in the Antelope Valley. Worse yet, by declaring that the aesthetic impacts of solar projects in the Antelope Valley will be analyzed later on a "project specific basis", the County evinces a clear intent to improperly defer analysis of these potentially significant aesthetic impacts and improperly avoid addressing whether they are cumulatively considerable. The County is reminded that CEQA does not permit a Lead Agency to defer the analysis of potentially significant impacts to a later time and it certainly does not allow the Lead Agency to ignore cumulatively considerable impacts by separately analyzing individual projects in a "piecemeal" fashion.

In summary, the CAP GHG goals will require more than 43,000 acres of new solar panels just to decarbonize unincorporated areas and more than 430,000 acres to achieve county-wide decarbonization; if the CAP does not direct the expansion of these new solar facilities toward already developed areas, the CAP will cause devastating aesthetic impacts on remote rural areas. These aesthetic impacts, along with the associated aesthetic impacts of massive new transmission lines and energy storage facilities, must be addressed in the CAP environmental review because they will not be mitigated by merely complying with the General Plan (which never considered 43,000 acres of new solar farms let alone 430,000 acres) or complying with the REO (which fails to adequately address aesthetic concerns

and completely ignores cumulatively considerable aesthetic impacts). The ATC challenges the conclusion set forth in the IS that the aesthetic impacts of CAP implementation are "less than significant". We further assert that it is entirely unacceptable for the County to proceed with CAP development without a thorough examination of the significant aesthetic (and other) environmental impacts that CAP implementation will have on the rural residents of Los Angeles County as a result of the solar farms, transmission lines, storage facilities, and other accoutrement required to achieve compliance with CAP GHG targets.

The IS Ignores Many Environmental Impacts Because It Wrongly Asserts That Projects Implementing the CAP will be Located Within the Urban Environment.

The conclusions presented in the IS regarding potential environmental impacts are largely contingent on the assumption that projects implementing the CAP will occur in developed or "urban" areas⁸. However, this assumption is only valid if the CAP specifically directs that implementation of its policies occur in urban areas. Unfortunately, nothing in the IS states (or even suggests) that the CAP will direct the implementation of its policies to urban areas; in fact, the IS specifically identifies rural communities in the Antelope Valley as a likely location where solar development will occur to achieve CAP targets. In other words, there are significant contradictions in the assumptions which underlie the IS; as a result, IS conclusions regarding environmental factors that are based on these contradictory assumptions are completely erroneous. Accordingly, the CAP environmental review must address all the environmental factors that the IS wrongly removed from consideration because of erroneous assumptions including impacts that were eliminated based on the premise that projects implementing the CAP will occur in developed and "urban" areas".

Other Environmental Factors Wrongly Eliminated by the Initial Study.

According to page 8 of the IS, the following environmental factors are deemed to not be potentially significant impacts affected by CAP decarbonization goals: Energy, Geology/Soils, GHG Emissions, Hazards, Hydrology, Land Use, Minerals, Population and Housing, Public Services, Transportation, and Wildfire. The ATC disputes these conclusions for the reasons set forth below.

Energy: Achieving county-wide decarbonization in Los Angeles County will create profound changes in energy generation and delivery in the County, and these changes have the potential to create significant adverse impacts. The IS errs in concluding that, just because the CAP will not result in wasteful, inefficient, or unnecessary energy use or

⁸ For example, the IS analyses of aesthetic impacts, agriculture/forest impacts, biological resource impacts, population and housing impacts, and wildfire impacts all presume that projects implementing the CAP will be located within the urban environment.

conflict with a local plan, it poses no significant adverse energy impacts. For example, the CAP substantially increases our dependence on electrical energy; this will result in more blackouts and brown outs, particularly during the summer when peak loads cannot be met by available energy resources. This is not opinion, it is fact⁹. Additionally, the CAP strategy to decarbonize existing development by transitioning to all-electric facilities will substantially impact rural residents that do not have reliable electrical service and even expose them to life-threatening conditions (as discussed above). Furthermore, the existing distribution grid in Los Angeles County will likely require additional switchgear installations and other upgrades to accommodate the 430,000 acres of new rooftop solar that will be installed if the CAP directs county-wide decarbonization targets to be achieved via distributed generation. On the other hand, if the CAP directs its decarbonization targets to be met by remote utility scale generation facilities, then the existing transmission and subtransmission system that delivers power to the urban core of Los Angeles County will require substantial upgrades to accommodate remote generation from the 430,000 acres of new solar facilities that the targets require. In other words, the CAP's 2045 decarbonization target will require substantial alterations in the County's energy system and these alterations must be evaluated for their environmental impacts; thus, the IS errs substantially in eliminating energy as an environmental factor that must be addressed in the CAP environmental review.

Geology/Soils: The IS concludes that the CAP will not "Result in substantial soil erosion or the loss of topsoil" (page 37). This conclusion is incorrect. The installation of 430,000 acres of remote utility scale generation will result in extensive, permanent vegetation removal in fragile desert areas. This in turn will increase wind-blown dust and substantially alter topsoil profiles wherever solar farms are installed. This is a substantial concern in the Antelope Valley where soil stability is highly variable and where regulatory agencies including the AVAQMD and the Antelope Valley Resource Conservation District have struggled to address wind-blown dust from existing solar farms. The potentially significant topsoil impacts that will be created by the installation of 430,000 acres of new solar panels necessary to achieve CAP decarbonization targets must be addressed in the CAP environmental review; the only way the County can avoid addressing these impacts is if the CAP directs its decarbonization goals to be achieved through the expansion of distributed generation in already developed areas.

Hazards: The IS concludes that the CAP will not pose any significant hazard risk. The ATC disagrees. Achieving CAP decarbonization goals will require the addition of extensive new battery storage facilities to ensure power delivery when the sun is not shining and the wind is not blowing; it is estimated that thousands of megawatts of battery storage facilities will be required to decarbonize Los Angeles County. These battery storage facilities are prone

⁹ [https://www.nbcnews.com/news/us-news/california-warned-brace-another-summer-energy-blackouts-n1268879'](https://www.nbcnews.com/news/us-news/california-warned-brace-another-summer-energy-blackouts-n1268879)

to overheating, ignition and even explosion¹⁰, and once ignited, take days to burn out¹¹. Accordingly, they pose a significant hazard wherever they are located. The significant hazards posed by the extensive battery storage facilities that will be required to achieve the CAP's decarbonization target must be addressed in the CAP environmental review. Additionally, the development of 430,000 acres of solar farms in remote areas will substantially increase ambient dust levels and, by extension, increase the threat of Valley Fever and other respiratory insults to residents who will be exposed to the increased dust levels. These hazards must also be addressed in the CAP environmental review.

Hydrology: The IS concludes that CAP implementation will not substantially decrease groundwater supplies (page 49) or substantially alter existing drainage pattern (page 50). The ATC disagrees. If CAP decarbonization goals are achieved via remote utility scale generation, the 430,000 acres of solar farms that will be constructed will require significant quantities of water to wash and maintain the panels (panel washing must be done at least several times per year, particularly in desert areas where ambient dust degrades panel performance). Since these remote locations do not have access to recycled water resources, the solar farms will rely on groundwater resources. Washing 430,000 acres (or 672 square miles) of solar panels located in the desert several times a year will require significant quantities of groundwater, and the CAP environmental review must consider the impacts this will have on groundwater supplies. Additionally, utility-scale solar facilities require extensive grading to level the ground for optimum panel configuration; thus, installing the 630,000 acres of solar panels required to achieve CAP targets will result in significant grading and, by extension, significantly alter to drainage courses. Accordingly, the IS is wrong to conclude that the CAP will not alter existing drainage patterns.

Transportation: The IS concludes that CAP implementation will not substantially impact transportation. The ATC disagrees. CAP targets will de-carbonize all modes of transportation in Los Angeles County within 23 years and electrify all transit and vehicle facilities; this will expose the County's transportation system to new risks that have not heretofore been encountered. For example, events which affect the transmission grid will impede power deliveries to the County's urban areas and bring portions of the County's transportation network to a standstill. This is not hypothetical; in fact, a small fire at the Vincent transmission substation actually caused power flows on a major energy

¹⁰ <https://cleanenergynews.ihsmarket.com/research-analysis/vistra-battery-storage-facility-in-california-remains-shut-aft.html>
<https://www.genre.com/knowledge/publications/pmint21-3-en.html>
<https://www.insurancejournal.com/magazines/mag-features/2020/09/07/581175.htm>.

¹¹ <https://www.usatoday.com/story/money/cars/2021/08/02/tesla-megapack-battery-ignites-fire-australia-burns-4-days/5453874001/>

transmission corridor to be cut by more than 50%¹². The urban portions of Los Angeles County are served by only a handful of high voltage transmission substations; this makes Los Angeles County residents incredibly vulnerable to power disruptions. And, as the County's electrical dependence increases through implementation of the CAP, these vulnerabilities will become magnified, and they will become exponentially large if the CAP's decarbonization goals are met through expansion of remote utility scale renewable generation rather than local distributed generation. In other words, implementing the CAP via remote renewable generation will pose significant operational risks to the County's transportation infrastructure; these risks must be addressed in the CAP environmental review.

Wildfire: The IS concludes that CAP implementation will not pose significant wildfire risks and in particular the IS asserts that the CAP will not "exacerbate fire risk" (page 76) or require the construction of power lines or other utilities "that may exacerbate fire risk" (page 77). These conclusions are absurd. Implementation of CAP decarbonization targets will require massive increases in utility facilities that pose significant fire risks, including battery storage facilities (as discussed above). And, if the CAP does not direct new renewable energy facilities to be constructed in already developed areas, then achieving CAP decarbonization goals will require massive new transmission lines to deliver power from the 430,000 acres of new, remotely sited, utility scale solar facilities. These lines will be constructed within the Angeles Forest and in other mountainous areas that are designated as "Very High Fire Hazard Severity Zones" and as such will greatly increase wildfire risks. The IS wrongly concludes otherwise, and these risks must be addressed in the CAP environmental review.

Utilities: The IS concludes that CAP implementation will not result in the construction of new electric power facilities "the construction or relocation of which could cause significant environmental effects" (page 72). This conclusion is absurd. Implementation of the CAP's county-wide decarbonization targets will require the construction of more than 430,000 acres of new solar panels, thousands of megawatts of energy storage facilities, and extensive new grid facilities; accordingly, the construction and operation of these facilities will cause significant environmental effects. The environmental document prepared for the CAP must address the significant adverse environmental impacts of these facilities particularly if the CAP fails to direct new renewable energy development to occur in already developed areas.

¹² The Vincent substation connects the Los Angeles Basin to renewable resources located in the Antelope Valley and is a primary energy "node" serving Los Angeles County. It is also the southern terminus of the "Path 26" energy corridor connecting Southern and Northern California. A transformer fire at this facility caused Path 26 to be de-rated from 3000 MW to only 1400 MW. <http://www.caiso.com/Documents/DMAReportApril2003.pdf>

Specific Comments Regarding CAP Strategies, GHG Targets, and Other Matters Presented in the Initial Study.

The ATC offers the following specific comments pertaining to the various CAP strategies and GHG reduction measures identified in the IS.

- Strategy 2 identifies a Measure to "Develop Land Use Plans Addressing Jobs/Housing Balance & Increase Mixed Use". The problem is, the adopted County General Plan and the adopted Antelope Valley Area Plan already provide land use plans that address jobs/housing and establish appropriate "Mixed-Use" profiles. If different land use plans or new "mixed-use" profiles are established in the CAP, then the CAP itself will be in conflict with existing land use policies already adopted into the County General Plan and the Antelope Valley area Plan; this would violate the statutory purpose of the General Plan¹³. The ATC is particularly concerned by this measure because "mixed use" development is intrinsically contrary to the type of low density land uses that are established for the rural unincorporated areas which are subject to the CAP.
- Strategy 2 also asserts "Reduce single-occupancy vehicle trips". There is no justification for this strategy since the CAP GHG goals will be met by decarbonization. In other words, there is no need to deprive people of the freedom to drive where they wish and when they wish because they will be driving electric vehicles and therefore "single-occupancy vehicle trips" will not contribute to GHG emissions.
- Strategy 3 asserts "Expand Bicycle & Pedestrian Network to Serve Residential, Employment, & Recreational Trips". The ATC objects to the limitations that are placed on this strategy and the extent to which it ignores equestrian uses. It is unacceptable to limit the active transport policies established by the CAP to only address bicycle and pedestrian modes, particularly within Acton and in the other rural communities that will be subject to the CAP. This strategy must be expanded to address equestrian uses and secure an equestrian network to serve residential, employment, and recreational trips.
- Strategy 3 also asserts "Removal of Parking Minimums". This strategy will eliminate EV charging locations, reduce driving enjoyment, and it is not needed to achieve GHG reductions because GHG goals will be met through decarbonization. Therefore, there is no justification for "Removal of Parking Minimums".

¹³ "If a general plan is to fulfill its function as a 'constitution' guiding 'an effective planning process,' a general plan must be reasonably consistent and integrated on its face. A document that, on its face, displays substantial contradictions and inconsistencies cannot serve as an effective plan because those subject to the plan cannot tell what it says should happen or not happen." (*Concerned Citizens of Calaveras County v. Board of Supervisors* (1985) 166 Cal.App.3d 90, 97.)

- Strategy 5 includes " Transition Existing Buildings to All-Electric" and "Standardize All-Electric New Development". As indicated above, this strategy will not work in rural areas where electrical service is unreliable; it will result in casualties and even fatalities.
- Strategy 6 includes "Increase Renewable Energy Production". As indicated above, there are two ways to implement this strategy: either via distributed generation within already developed areas or via remote utility scale generation in rural and open space areas. Because the former poses relatively smaller environmental impacts, and the latter creates significant environmental impacts, it is essential that the CAP clearly articulate which of these two approaches will be incorporated in Strategy 6 implementation; it is also critical that the environmental document prepared for the CAP properly addresses the impacts corresponding to the Strategy 6 implementation program established by the CAP.
- Strategy 8 includes "Increase Use of Recycled Water and Gray Water Systems" and "Reduce Indoor and Outdoor Water Consumption". The IS provides no information regarding this strategy or the targets that it will establish for recycling water and reducing consumption, thus it is impossible for the public to provide meaningful scoping comments regarding this Strategy 8. And, without further information pertaining to this strategy or how it will be implemented, the public cannot comment on its implication or impacts. What is meant by "reduce indoor and outdoor water consumption"? Does the County plan to restrict water usage to meet the state goal of 50 gallons per person per day? If so, then the animal rescues, equestrian uses, and other uses in Acton will be eliminated by this strategy. Also, what does it mean to "Increase Use of Recycled Water and Gray Water Systems" particularly in unincorporated rural areas that do not have sewage facilities and are not supposed to have sewage facilities? The lack of detail provided by the County regarding Strategy 8 has prevented the ATC from providing substantive comments regarding its potential environmental impacts and thus thwarted the purpose and intent of CEQA scoping.
- Strategy 9 includes "Increase Organic Waste Diversion", "Maximize Countywide Diversion Rate", and "Institutionalize Sustainable Waste Systems & Practices". The IS provides no information regarding this strategy or the targets¹⁴ that it will establish for waste diversion and waste practices. As a result, the public cannot meaningfully comment on the implications or impacts of Strategy 9. Presumably, this strategy will increase the number of waste facilities in the County; it is also likely to increase trip rates because instead of having one trash pickup a week, residences will have three or more (organic waste, recyclable waste, and trash). If these facilities are located in remote areas, that will add to the transportation impacts of this strategy and it will

¹⁴ Page 74 of the IS states that Measure W3 includes a goal of "decreasing per capita waste by 35% by 2045" but this target is not described in the strategy details provided on pages 3-5 and it is not mentioned anywhere else in the IS, so it is not certain whether this is even an actual CAP target.

create adverse environmental impacts in the areas where they are located. Consideration must also be given to where the recycled/diverted waste will go. The ATC understands that the County is eager to increase mulch generation as a means of increasing diversion rates, but most mulch that is currently produced by facilities in Los Angeles County is contaminated with trash and it often has a terrible stench; this is because current standards allow a considerable amount of trash in organic material before it is mulched. Unfortunately, due to the lack of detail provided by the County regarding Strategy 9, the ATC is uncertain whether these comments are even relevant to the CAP scoping effort. In any event, we have been prevented from providing substantive comments regarding the potential environmental impacts of Strategy 9 in a manner that thwarts the purpose and intent of CEQA scoping.

- Page 2 of the IS states that the CAP will include revisions to address "locating new housing developments away from existing sources of air pollution". It is the ATC's understanding that matters pertaining to the location of new housing and the proximity of housing to air pollution sources lie within the purview of the General Plan Land Use Element, Air Pollution Element, and Safety Element (and perhaps the AVAQMD and SCAQMD); such matters do not belong in the CAP. The purpose of the CAP is to focus on climate action and not air pollution. If the CAP does include policies which locate new housing away from existing sources of air pollution, then the environmental document prepared for the CAP must address the displacement impacts that will be created by such policies. Additionally, any new CAP housing policies will have to be compared to policies already adopted in various General Plan and Area Plan elements to ensure they do not introduce any contradictions or pose increased environmental impacts beyond those considered when the elements were adopted.

Conclusion

The ATC respectfully requests that the County incorporate the comments offered above in the CEQA review that will be conducted for the CAP. If you have any questions or require additional information, please do not hesitate to contact us at atc@actontowncouncil.org.

Sincerely;



Jeremiah Owen, President
The Acton Town Council

Attachments



December 27, 2021

Director L. Palmer
Safety and Enforcement Division,
California Public Utilities Commission
505 Van Ness Avenue,
San Francisco, California, 94102
Electronic transmission of twenty four (24) pages to:
leslie.palmer@cpuc.ca.gov

Subject: The Acton Town Council Comments on the Southern California Edison's
Post Event Report dated December 10, 2021.

Reference: SCE De-energization Events of November 24-26, 2021

Dear Director Palmer;

The Acton Town Council ("ATC") respectfully submits the following comments on the "Post-Event Report" ("Report") addressing the "Public Safety Power Shutoff" ("PSPS") event of November 24 to November 26, 2021 that was prepared by Southern California Edison ("SCE"). The 15-day deadline established by D.19-05-042 for submitting comments on this PSPS event fell on Saturday, December 25; accordingly, and consistent with Commission Rule 1.15, these comments are being submitted on the next business day and are thus deemed timely filed. These comments will also be distributed to those on the Service List for R.18-12-005.

The Acton Town Council only recently became aware of the fact that portions of Acton are served by the Sand Canyon circuit; specifically, the entire east half of Segment 7 of the Sand Canyon circuit lies in Acton and serves Acton residents. As a result of the lengthy PSPS power shutoff that SCE recently initiated on this circuit, many Acton residents did not have electrical service before, during, and after Thanksgiving Day. Because this PSPS event greatly affected Acton residents, the Acton Town Council reviewed SCE's PSPS Post Event Report that was served to stakeholders late in the evening on December 10, 2021, and we noted several significant problems. Our concerns are provided below in a sectionalized format to facilitate review by Commission staff.

"Our lives begin to end the day we become silent about things that matter" Martin Luther King, Jr.

SCE's Post Event Report Fails to Accurately Describe PSPS Events Affecting Acton:

SCE's Post Event Report gives an inaccurate and arguably false description of the PSPS event experienced by Acton residents served by the Sand Canyon circuit. For instance, it states on page 36 that "On Wednesday night, November 24, (as discussed in Section 2.5) 428 customers on the Impala circuit were brought back online by a backup generator at 6:18 pm. Customers on the Sand Canyon, Energy, and Blackhills circuits (608 total) were restored to service around 8 pm". This is incorrect. Service to Acton residents on the Sand Canyon circuit was not restored until 2 days later on November 26. These Acton residents had no power either before, during, or after Thanksgiving Day.

SCE Did Not Utilize Sectionalization Effectively to Reduce PSPS Impacts in Acton

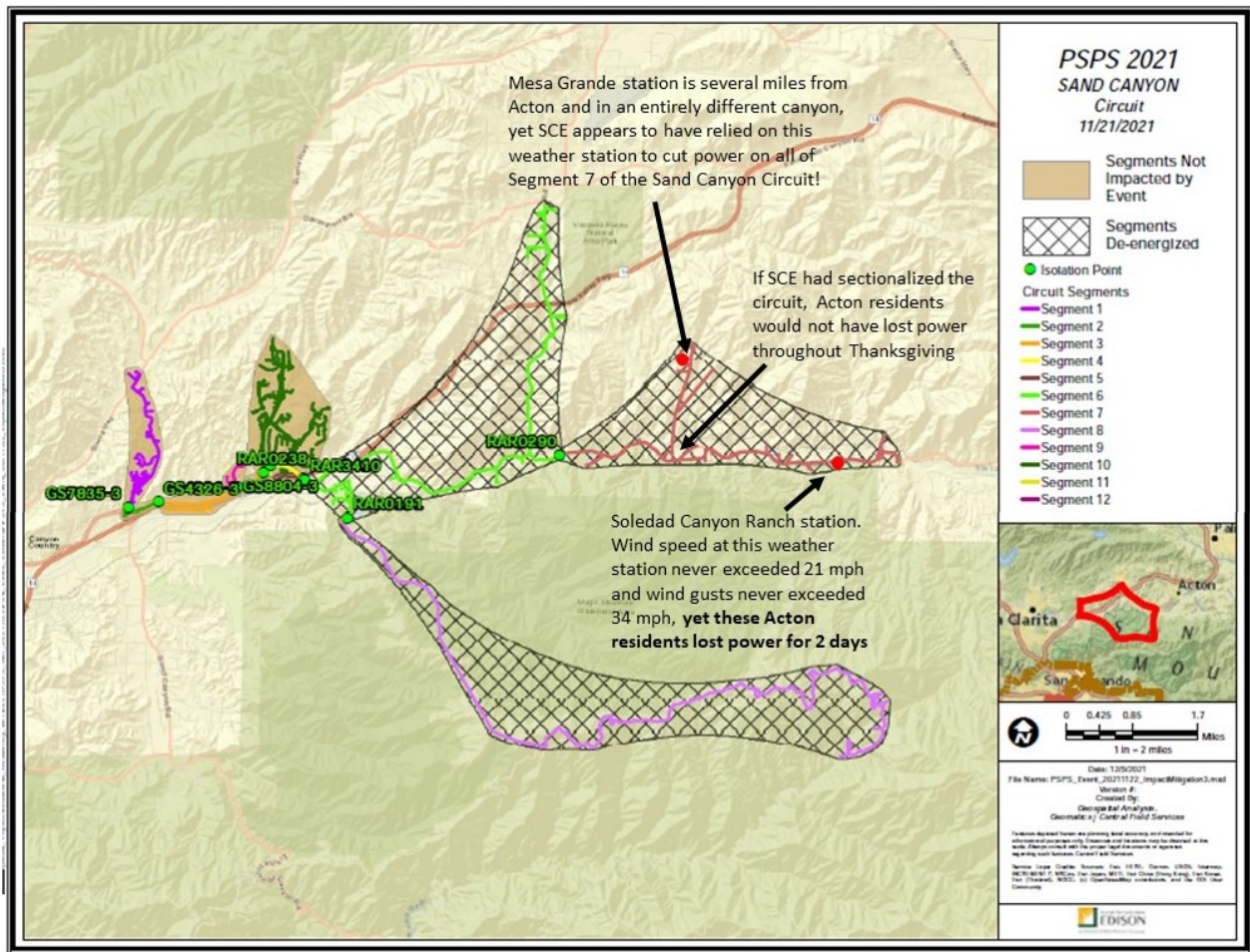
The ATC could find no reference to the weather station data that SCE relied upon to de-energize Acton residents before, during, and after the Thanksgiving holiday. Nonetheless, the ATC downloaded all the data from the weather station along the portion of Segment 7 of the Sand Canyon circuit that serves Acton (referred to as the "Soledad Canyon Ranch" station), and found that, for the entire 46-hour period during which Acton residents were de-energized over the Thanksgiving holiday, *sustained wind speeds never exceeded 20.6 mph and wind gusts never exceeded 33.5 mph* (see data provided in Attachment 1). In other words, *wind speeds on the portion of Segment 7 of the Sand Canyon circuit that serves Acton never even approached SCE's PSPS thresholds at any time before, during, or after Thanksgiving yet our residents lost power for 2 days anyway*. Notably, windspeeds of 27 mph were measured several miles northwest of Acton at the "Mesa Grande" station that is located in an entirely different canyon and is served by a branch off Segment 7 (see data provided in Attachment 2); however, this does not justify SCE's power shutoff to Acton residents because SCE should have segmented the Sand Canyon circuit at the branch point and thus only de-energized customers in the vicinity of the "Mesa Grande" station. This fact is shown more clearly in Figure 1 below, which reproduces the Sand Canyon circuit map provided on page 113 of SCE's post Event Report and shows where SCE should have deployed sectionalization to prevent Acton residents from losing power throughout the Thanksgiving holiday.

SCE Relies on Unreasonable Windspeed Thresholds to Initiate PSPS in Acton.

SCE continues to cut power in Acton based on unreasonably low windspeed thresholds; according to the "Event Data Workbook" spreadsheet that SCE submitted with its Post Event Report dated December 10, 2021, SCE denied power to Acton residents over the Thanksgiving holiday based on a sustained windspeed threshold of only 26 mph and a wind gust threshold of only 39 mph. As the ATC has repeatedly pointed out in numerous documents filed with the Commission¹, cutting power to customers at such

¹ "The Acton Town Council's Comments on the Proposed Decision Addressing the Late 2019 Public Safety Power Shutoff Events" filed May 10, 2021 in Proceeding I.19-11-013 at 6, 10. Application for Rehearing of Decision D.21-06-014 by the Acton Town Council submitted on July 7, 2021 at 10. See "The Acton Town Council Opening Comments on the Proposed Decision Adopting Phase 3 Revised (cont'd.)

Figure 1. SCE's Sand Canyon Circuit with Annotations Indicating Where Sectionalization Should Have Been Deployed.



low windspeed thresholds violates the reasonableness standard established by Commission Resolution ESRB-8 because such de-energization events are driven by structural deficiencies on SCE's distribution system rather than the presence of "strong

and Additional Guidelines and Rules for Public Safety Power Shutoffs (Proactive De-Energizations) of Electric Facilities to Mitigate Wildfire Risk Caused by Utility Infrastructure" filed June 10, 2021 in Proceeding R.18-12-005 at 3, 5. See also "Application for Rehearing of Decision D.21-06-014 by The Acton Town Council" filed July 7, 2021 in Proceeding I.19-11-013 at 15-17, 22. See also ATC Supplemental Comments on 2021 Wildfire Mitigation Plan Updates submitted to the Commission March 29, 2021; see also all ATC comments on all SCE PSPS post-event reports filed in 2020 and 2021, particularly those dated March 1, 2021.

winds"²; this renders SCE's PSPS events *intrinsically and explicitly unreasonable*. SCE openly admits that its PSPS windspeed thresholds are driven by "circuit health" concerns (see page 10 of the December 10, 2021 Post Event report); SCE defines "circuit health" based on the number and extent of structural deficiencies existing on the circuit. Specifically, SCE's "circuit health" factors are derived from the number of structures that are either "imminently about to fail" (referred to as "P1" structures) or will fail within 6 months (referred to as "High P2" structures)³. SCE also openly admits that it utilizes low windspeed thresholds on circuits that have "a history of local circuit outages at lower wind speeds" (see page 10 of the December 10, 2021 Post Event report). At the very least, this assertion proves that portions of SCE's distribution facilities are demonstrably incapable of reliable operation under moderate wind speeds and therefore violates Commission-adopted structural standards codified in General Order 95 ("GO95"). Equally important, the application of low windspeed thresholds to facilities that have "a history of local circuit outages at lower wind speeds" demonstrates that SCE prefers to simply de-energize its customers rather than maintain circuits in a manner that serves customers reliably. Finally, this statement is an open admission that at least some of SCE's equipment is neither constructed nor maintained to a standard that is sufficient to accommodate "known local conditions" as required by GO95⁴ because if it were, there would be no "history of local circuit outages at lower wind speeds".

All of this demonstrates conclusively that SCE does not maintain its distribution equipment in compliance with adopted Commission orders; as a result, SCE's distribution equipment poses wildfire risks to Acton residents and others. Since 2019, SCE has reduced its exposure to the wildfire liability risk posed by its own deficient equipment by simply cutting power; in so doing, SCE has routinely increased

² Resolution ESRB-8 establishes that a de-energization event is "reasonable" only if there is an imminent and significant and significant risk that "strong winds" will topple power lines or cause major vegetation related impacts [at 4]. The Commission has determined that electrical facilities which comply with General Order 95 ("GO-95") are capable of withstanding wind loads greater than 56 miles per hour (D.09-09-0309 and D.14-02-015), so winds less than 56 mph do not pose a "danger" of toppling power lines. Regarding the risk of "vegetation related impacts": The National Weather Service recognizes the "Beaufort" Scale which establishes winds must exceed 39 mph before twigs come off trees thus an "imminent and significant risk" of "major vegetation related impacts" does not exist when winds are below 40 mph. [<https://www.weather.gov/mfl/beaufort>],

³ See page 5 of discovery response from SCE to the ATC dated March 23, 2021 that was provided to the Commission in Attachment 1 of the "Application for Rehearing of Decision D.21-06-014 by the Acton Town Council" filed July 7, 2021 in Proceeding I.19-11-013.

⁴ Rule 31.1 of General Order 95 states (with emphasis added) "A supply or communications company is in compliance with this rule if it designs, constructs, and maintains a facility in accordance with the particulars specified in General Order 95, except that if an intended use or *known local conditions* require a higher standard than the particulars specified in General Order 95 to enable the furnishing of safe, proper, and adequate service, the company *shall follow the higher standard*."

public safety hazards significantly. These de-energization events have violated SCE's statutory obligation under the Public Utilities Code; specifically, §399.2 (which requires SCE to operate their distribution equipment in a safe and reliable manner) and §451 (which requires SCE to furnish and maintain adequate electrical service necessary to promote public safety). These de-energization events have also controverted the Commission's express directive that "Under no circumstances may the utilities employ de-energization solely as a means of reducing their own liability risk from utility-infrastructure wildfire ignitions"⁵.

Despite the extensive evidence provided by the ATC to the Commission since 2019 which demonstrates that SCE equipment deficiencies violate Commission Orders, and despite its own statutory obligation under §2101 of the Public Utilities Code to enforce statutes affecting public utilities and see "that violations thereof are promptly prosecuted", the Commission has persistently declined to initiate any reasonableness reviews of SCE de-energization activities⁶ *even though its own adopted decisions and directives require such reviews*⁷. This lack of Commission interest in enforcing its own standards and ensuring compliance with basic reliable electrical service requirements imposed by the Public Utilities Code is inexplicable. It is also astounding, given the scope of SCE distribution equipment deficiencies that were revealed in various Commission reports that were released just last month⁸. The Commission cannot stand by any longer; it has a statutory obligation to investigate the reasonableness of SCE's de-energization events and assess the extent to which these events violated §399.2 and §451 by denying customers safe and reliable power because they were initiated to mask equipment deficiencies and thereby avoid liability. The salient issue that the Commission has persistently failed to address is that SCE initiates PSPS events in Acton and elsewhere because its distribution equipment is deficient; this fact is demonstrated by SCE's persistent use of a 26 mph or less windspeed threshold for cutting power to Acton residents. Notably, it is not just the community of Acton that is saddled by these low windspeed thresholds; 20 of the circuits that were affected by SCE's PSPS event over

⁵ D.19-05-042 at 68.

⁶ The Commission recently affirmed that it "has not to date undertaken a review of the reasonableness of **a utility's decision to call a PSPS event**" [D.21-06-034 at 23].

⁷ D.19-05-042 at 107. Also, ESRB-8 affirms the need to "assess the reasonableness of all electric IOU de-energization events in order to ensure that the power shut off is executed only as a last resort and for a good reason" [at 4]. Also, the Scoping Memo issued on August 3, 2020 in Proceeding I.19-11-013 affirms that the Commission's Safety Enforcement Division will "engage in a reasonableness review of all PSPS events" [page 5 at FN11].

⁸ See Commission investigation reports released November 2021 on the Liberty, Meyers, Rye, Thomas and Woolsey fires found here: <https://www.cpuc.ca.gov/industries-and-topics/wildfires/wildfires-staff-investigations>.

the Thanksgiving holiday have windspeed thresholds of 26 mph or less⁹. And, as the ATC has previously pointed out, nearly 50 of SCE's distribution circuits have sustained windspeed thresholds less than 31 mph¹⁰.

Finally, it must be clarified that *the ATC does not object* to cutting power on structurally deficient equipment to prevent wildfire ignitions; to the contrary, de-energization under such circumstances is critical to protecting life and property. If SCE had de-energized its equipment in a timely manner, the Thomas, Woolsey, Rye, Meyers, and Liberty conflagrations may have been avoided. Similarly, the Kincade, Zogg, and Camp fires could perhaps have also been avoided if PGE had de-energized its equipment. What concerns the ATC is that every de-energization event that SCE initiates to avoid wildfire ignitions on substandard or structurally deficient equipment constitutes a failure to operate distribution equipment in a safe and reliable manner and is therefore a direct violation of §399.2 of the Public Utilities Code. This is because SCE sacrifices reliability for safety if it de-energizes a distribution circuit when deficiencies on the circuit pose a wildfire risk. Additionally, every de-energization event poses a substantial public safety risk¹¹; thus, every time SCE cuts power to prevent wildfire ignitions on deficient or substandard equipment, it violates §451 by failing to maintain adequate electrical service necessary to promote public safety. *What the ATC does object to* is that SCE is never held accountable for these violations. More specifically, the ATC objects to the manner in which SCE continually violates Public Utility Code provisions pertaining to public safety and electrical reliability; we further object to the Commission's object refusal to conduct "reasonableness reviews" of SCE's PSPS events and thereby investigate these violations. SCE's actions can perhaps be accounted for by the fact that, as a corporation, it avoids the destruction and attendant liability of a wildfire sparked by deficient equipment by simply cutting power at low windspeeds. However, the Commission's persistent refusal to conduct any "reasonableness reviews" of the numerous and extensive PSPS events that have occurred over the last three wildfire seasons cannot be accounted for, particularly in light of its prior commitment to "assess the reasonableness of all electric IOU de-energization events in order to ensure that the power shut off is executed only as a last resort and for a good reason"¹². Furthermore, the Commission's willful abrogation of its statutory duty under the Public Utilities Code to promptly prosecute violations of statutes affecting public utilities is bizarre and unfathomable. The Commission's inaction has substantially undermined public

⁹ See the "Event Data Workbook" spreadsheet that SCE submitted with its PSPS Post Event Report filed December 10, 2021 [Tab T03].

¹⁰ Application for Rehearing of Decision D.21-06-014 by the Acton Town Council submitted on July 7, 2021 at A2-3.

¹¹ D.09-09-030 at 30-40.

¹² Resolution ESRB-8 at 4.

safety¹³ and contemporaneously served the interests of utilities like SCE because it permits them to sidestep their obligation to provide safe and reliable power and maintain adequate electrical service to promote public safety; it bears all the hallmarks of "regulatory capture"¹⁴. The Commission must shake off the deference that it has shown and continues to show to SCE and other utilities and begin to act in the interest of the public by conducting reasonableness reviews of PSPS events and holding utilities accountable when they violate the Public Utilities Code by shutting off power to mask equipment deficiencies and thereby protect themselves from liability.

SCE Fails to Identify and Weigh the Public Safety Risks Posed by its PSPS Events.

The Commission has repeatedly ordered utilities like SCE to include in every PSPS Post Event Report an "explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks"¹⁵; these orders were driven by the utility's statutory obligation under Public Utilities Code §451 to promote the safety of their customers. The public safety risks that SCE is supposed to consider were carefully laid out in D.09-09-030 and include, but are not limited to: wildfire risks due to the widescale use of generators, barbeques, camp stoves, candles, and lanterns; disruption in communication networks; loss of customer communication access; disruption to emergency communication and evacuation procedures; endangering customers with disabilities, adversely impacting schools, adversely impacting water supply to fight fires and serve domestic needs, impairment of traffic control measures, and diversion of public safety personnel. Notably, every one of these adverse impacts occurred as a result of SCE's PSPS activities in 2019 (as the ATC pointed out in all of our filings submitted in Proceeding I.19-11-013). Instead of addressing these risks and showing that they were outweighed by a discernible public safety benefit, SCE's December 10 2021 Post Event Report contrives something called a "PSPS Risk" that is based on unidentified studies and undisclosed information pertaining to the "2003 Northeast Blackout" and the "2011 Southwest Blackout" addressing consequences from "food spoilage" and "underlying health conditions" in terms of "fatalities and serious injuries per customer minutes interrupted". Notably, the "2011 Southwest Blackout lasted only 13 hours, and the 2003 Northeast Blackout was largely resolved within 14 hours; neither of these events provide any indication of the real public safety risks that result from multiple days without power (which are so common in SCE PSPS events). The Commission is aware that the public safety risks posed by PSPS events are not linear

¹³ By failing to hold utilities accountable for unreasonable power shutoffs, the Commission permits such activities to persist unfettered and thereby directly and substantially contributes to increased public safety risks.

¹⁴ Regulatory Capture is evidenced by a body of commission actions or inactions where "what the regulated entity wants has more influence than what the public interest requires." Scott Hempling, *"Regulatory Capture: Sources and Solutions"*; EMORY LAW CORPORATE GOVERNANCE & ACCOUNTABILITY REVIEW. 25 (2014).

¹⁵ D.19-05-042 at 108; D.21-06-014 at 49; D.21-06-034 at 23.

with time; risks increase substantially with every incremental hour of power shutoff because people become more desperate¹⁶. However, none of this is accounted for in SCE's "PSPS Risk". Moreover, SCE claims that its "PSPS Risk" value is informed by Post Event Reports submitted by investor-owned utilities in 2019, but provides no corroborating information. In fact, the risk parameters that SCE used are not quantified anywhere in the report and the formula that SCE contrived to derive the infinitesimally small "PSPS Risk" that it claims for each circuit is not even disclosed in the spreadsheet that was filed with its Post Event Report¹⁷. In other words, the Commission has insufficient information to conclude that SCE did in fact comply with Commission directive and "weigh" the actual and material public safety risks posed by its PSPS events before cutting power over the Thanksgiving holiday. And, given the widespread public safety risks that materially resulted from SCE's previous PSPS events, it is a certainty that the infinitesimally small public safety risk that SCE claims was posed by its November 24-26 power shutoff event is absurdly underpredicted.

SCE's December 10, 2021 Post Event Report also presents something called a "Wildfire Risk" parameter that appears to be an amalgamation of a projected wildfire "footprint" (i.e., the size a fire could become if it were to ignite) and the number of structures and residents that would be affected within that footprint. SCE then factors in an estimated number of fatalities and injuries that could result if such a wildfire were to occur; this value is then normalized to derive a number which is less than 1 and represents fatalities and injuries that will result if a wildfire were ignited in the vicinity of a particular circuit. Unfortunately, SCE's "wildfire risk" is substantially over predictive for a number of reasons, not the least of which is that it presumes no firefighting resources are deployed to combat the wildfire that is assumed to occur; the wildfire is assumed to rage unabated for 24 hours without any fire suppression or structure protection activities. Moreover, SCE's "wildfire risk" parameter does not factor in the risk that an ignition event will even occur; instead, SCE just assumes that a wildfire is ignited on every circuit. As a result of these and other assumptions, SCE's "wildfire risk" model substantially overstates the "benefits" that are derived from its PSPS events; the extent to which these "benefits" are grossly overstated is revealed by putting SCE's "wildfire risk" model in proper context. For instance, SCE projects the "wildfire risk" posed by the "Stubby" circuit during a single 24-hour wind event is 0.2362¹⁸; mathematically speaking, this

¹⁶ As the ATC has previously pointed out, customer behavior becomes more risky as the length of time they were without power increases. For instance, we have informed the Commission that an Acton resident reported seeing a person at a local gas station who was so desperate for fuel to operate their generator during a lengthy SCE PSPS event that they were pumping gasoline into all sorts of containers, including a glass jar. [Comments on the Safety and Enforcement Division's "Public Report on The Late 2019 Public Safety Power Shutoff Events" From the Acton Town Council (FN 12)].

¹⁷ See "Event Data Workbook" spreadsheet that SCE submitted with its Post Event Report dated December 10, 2021 (tab T04).

¹⁸ Ibid.

means that an injury or fatality is projected to result from a wildfire ignition on the "Stubby" circuit once every four years if it experiences one wind event per year. If the "Stubby" circuit experiences four wind events per year, then SCE's model predicts that a wildfire-related injury or fatality will occur once per year. Such projections are completely insupportable by historical evidence; the "Stubby" circuit has existed for decades, and insofar as the ATC is aware, no injury or fatality ever resulted from a catastrophic ignition on the "Stubby" circuit during a wind event prior to 2019 (when PSPS events became commonplace). As another example, consider the "Sand Canyon" circuit that serves Acton residents and was de-energized by SCE due to "high winds" at least 4 times in 2020 and 4 times in 2021: SCE projects the "wildfire risk" posed by the "Sand Canyon " circuit during a single 24-hour wind event is 0.0703¹⁹; mathematically speaking, this means that an injury or fatality is projected to result from a wildfire ignition on the "Sand Canon " circuit approximately once every three years if it experiences four wind event per year. This risk projection is absurdly over-predictive: the Sand Canyon circuit dates back to the middle of the last century and it experiences frequent wind events every year; yet, insofar as the ATC is aware, it has never caused any wildfire ignitions that resulted in any injuries or fatalities.

Another reason SCE's PSPS risk/wildfire risk model is so erroneous is because it considers each de-energized circuit individually and fails to consider the cumulative impacts of cutting power on multiple circuits in a large area. As the ATC has previously pointed out, SCE's PSPS events cut power from Palmdale to Santa Clarita, and affect an area that is more than 200 square miles; the cumulative disruptions and attendant public safety risks posed by such widespread power shutoffs is completely ignored by SCE's risk methodology.

SCE's "wildfire risk" values are so over-predictive and its "PSPS Risk" values are so under-predictive that they do not represent anything real and they are certainly not consistent with historical data. For instance, the Commission is aware that SCE's PSPS events in 2019 resulted in wildfires that forced the evacuation of tens of thousands of people, burned thousands of acres and numerous structures, prevented wildfire suppression, impeded access and egress, prevented emergency evacuation orders from being received, and caused numerous injuries²⁰. Based on this evidence, it is certain that PSPS events pose substantial public safety risks that are at least on par with the public safety risks they are intended to prevent; yet, SCE's model contrives completely opposite results which conclude that risks posed by any PSPS is several orders of magnitude less than risks posed by a utility-ignited wildfire. Nothing could be further from the truth, and the magnitude of errors that are imbedded in SCE's model is

¹⁹ Ibid.

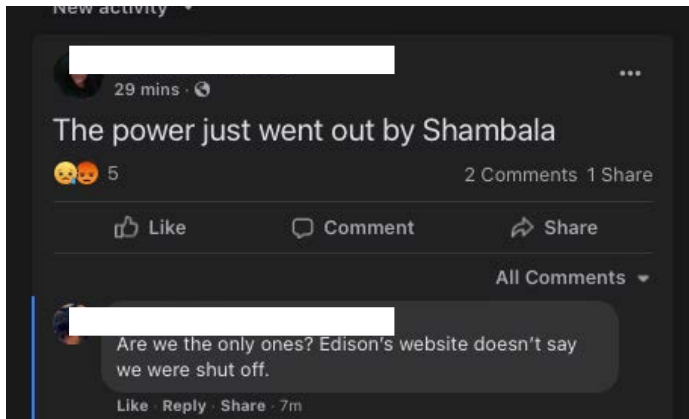
²⁰ See ATC comments submitted to the Commission in Proceeding I.19-05-042, R18-12-005, and R.18-10-007. See also personal experiences relayed by Acton residents to SCE on November 4, 2019 found here: <https://www.youtube.com/watch?v=Og9cJJZ61Mk&t=2101s>.

revealed through a simple comparison of SCE's claimed "PSPS Risks" to SCE's claimed "Wildfire risks". For instance, consider the "Acosta" circuit that serves approximately 3,800 people and which was de-energized for nearly 48 hours over the Thanksgiving holiday: according to page 15 of SCE's Post Event Report, cutting power on the "Acosta" circuit on Thanksgiving eliminated the risk of 213 wildfire-related injuries/fatalities compared to the risk of a single injury/fatality posed by the PSPS event itself. It is certainly likely that a 48-hour PSPS event on the "Acosta" circuit would result in at least one injury or fatality (if not more). However, it is absurdly implausible to conclude that an ignition on the Acosta circuit is likely to result in 213 fatalities/injuries (which is more fatalities/injuries than have occurred in recent wildfire events). In other words, SCE's model is so grossly over-predictive of the wildfire risk posed by its circuits, and it is so grossly under-predictive of the very real and demonstrably significant public safety risks that were created by its PSPS events over the Thanksgiving holiday that SCE's Post Event Report does not comply with the Commission directive that SCE demonstrate that PSPS risks were outweighed by clearly quantified benefits. Accordingly, SCE has failed to demonstrate that it complied with its statutory mandate under Pub. Util. Code § 451 to furnish and maintain adequate electrical service necessary to promote public safety; accordingly, the Commission must censure SCE for its most recent PSPS event.

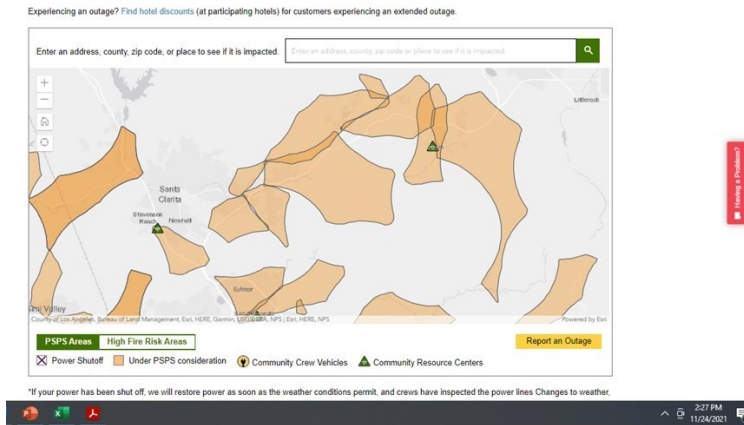
SCE's Notification Process Continues to be Substandard and Deficient.

SCE's Post Event Report dated December 10, 2021 states that more than 30,000 customers did not receive a "1- to 4-hour imminent notification" and more than 3,500 entities did not receive any notification before de-energization. SCE also reports that more than 3,000 customers did not receive any notification before re-energization. These numbers are abysmal. The ATC is particularly concerned about the failure to notify customers before re-energization because of the risk to life and property that such failures create; customers who rely on generators must be notified in advance before re-energization occurs so that they can disconnect their generator before power is restored. This is important; generators that are operated without a transfer switch pose a significant fire danger if they are still operating when system power is restored. It is noted that generators are not supposed to be operated without a transfer switch, however it is naively unrealistic to assume that all of SCE's customers have the knowledge and expertise to properly configure and connect their generator.

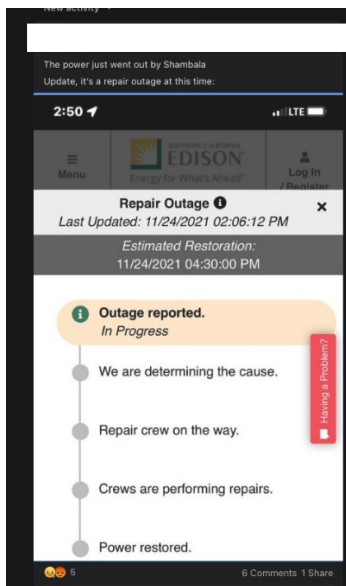
The ATC also notes that SCE's Post Event Report dated December 10, 2021 fails to disclose the abysmal notification process that Acton residents experienced. On November 24 at approximately 2:15, power was cut in southwest Acton; SCE's website was accessed by an Acton resident, but it showed that there were no de-energization activities anywhere in the area. The following is a screenshot of the text trail:



The SCE website was accessed at 2:27; it showed no PSPS activities in or near Acton:



By 2:50, SCE reported the power shutoff in Acton as a "repair"; here is the screenshot:



The power remained off for 2 days.

Conclusion

Naturally, Acton residents are grateful that SCE's multiday power shutoff over the 2021 Thanksgiving holiday was not as widespread in our community as its power shutoff event during the 2020 Thanksgiving holiday. However, the very fact that our residents are grateful to SCE for not cutting their power and ruining their Thanksgiving *is extremely troubling*, and it warrants Commission action. Utility customers are not supposed to be grateful when a utility deigns to sell them power; this is particularly true in rural communities like Acton where individual property owners are forced to pay enormous developer fees to SCE for extending distribution facilities to provide electrical service to their properties. Customers should expect reliable electrical service and the Commission has a statutory obligation to do everything in its power to see that such customer expectations are met; however, this is not the case today. Since 2019, SCE has routinely cut power to customers and thereby endangered lives and property because of inexcusable infrastructure deficiencies, and it does so with impunity because the Commission refuses to assess the reasonableness of SCE's de-energization decisions. The magnitude of the Commission's commitment to not enforce the Public Utilities Code and compel SCE to provide reliable electricity was recently revealed in D.21-06-014 which concluded that no deterrence measures were warranted even though SCE and other utilities extensively violated Public Utilities Code §451 when they initiated PSPS events in 2019. Worse yet, D.21-06-014 provides financial incentives to utilities for simply improving their conduct in PSPS events²¹; it does not even try to compel compliance – it merely hopes that improvements will happen. By "incentivizing" compliance rather than enforcing it, D.21-06-014 turns the Commission's entire enforcement program on its head and lets utilities choose whether they will comply with the Public Utilities Code, and if so, the extent to which they will comply. Because of the appalling deference that the Commission has persistently shown to SCE since the Fall of 2019, Acton residents are now in the untenable position of being grateful when their power is *not* cut off. The absurd situation created by the Commission's failure to hold utilities accountable flies in the face of the entire legislative intent behind the Public Utilities Code which affirms "Reliable electric service is of utmost importance to the **safety, health, and welfare of the state's citizenry and economy**"²².

The Commission now has a fresh opportunity to rectify its previous errors and hold utilities accountable by conducting a "reasonableness review" of SCE's most recent PSPS event. As we have shown above, there is nothing "reasonable" in a 25 mph or less windspeed threshold or a 39 mph or less wind gust threshold or the continued existence of infrastructure that has "a history of local circuit outages at lower wind speeds"; these circumstances violate General Order 95 because they are driven by either structural deficiencies or infrastructure that is not configured to accommodate local conditions. What makes the power shutoff that occurred in Acton over the Thanksgiving holiday

²¹ D.21-06-014 at 60 and Conclusion of Law #16.

²² §330 of the Public Utilities Code.

even more unreasonable is that wind levels on the Acton portion of the Sand Canyon circuit never even exceeded SCE's paltry thresholds, and had SCE had just sectionalized the Briggs Road portion of Segment 7 of the Sand Canyon circuit, our residents on Segment 7 would have lost power for just a few hours the night before Thanksgiving and then been re-energized at the same time that Segment 6 was re-energized. Instead, Acton residents lost power for two days. This, coupled with the fact that SCE did not properly consider the documented public safety risks posed by the power shutoff initiated over Thanksgiving holiday and the fact that it grossly overstated the wildfire risk that its power shutoff avoided, renders the entire PSPS event completely unreasonable. Given these factors, a "reasonableness review" of SCE's most recent PSPS event by the Commission is warranted.

Respectfully submitted;

/s/ Jacqueline Ayer

Jacqueline Ayer

On behalf of The Acton Town Council

December 27, 2021

Attachment 1

Weather Data from SCE's "Soledad Canyon Ranch" Weather Station in Southwest Acton.

| SCE SOLEDAD CANYON RANCH WEATHER STATION IN SOUTHWEST ACTON | | | | | | | | | | |
|---|----------------------|------------|-------------|---------|------------|-------|-----------|-------|------------------|--|
| # The provisional data available here are intended for diverse user applications. | | | | | | | | | | |
| # For data reqi review the information | | | | | | | | | | |
| # available from the NCEI (https://www.ncdc.noaa.gov/customer-support/certification-data) | | | | | | | | | | |
| # or consult a CCM (http://www.nicm.org). | | | | | | | | | | |
| # STATION: SE677 | | | | | | | | | | |
| # STATION NAME: SCE Soledad Canyon Ranch | | | | | | | | | | |
| # LATITUDE: 34.43807 | | | | | | | | | | |
| Max sustained winds: 20.56 Occurred on November 25 at 12:50 PM | | | | | | | | | | |
| # LONGITUDE: -118.26327 | | | | | | | | | | |
| Max wind gusts: 33.46 Occurred on November 25 at 12:40 PM | | | | | | | | | | |
| # ELEVATION [ft]: 2265 | | | | | | | | | | |
| # STATE: CA | | | | | | | | | | |
| Station_ID | UTC time | Local Time | Temp ° F | RH % | wind speed | | wind gust | | dew point ° F | |
| | | | | | knots | mph | knots | mph | | |
| SE677 | 2021-11-24T20:00:00Z | 12:00 PM | 62.17 | 15.39 | 12.52 | 14.41 | 22.85 | 26.3 | 14.46 | |
| SE677 | 2021-11-24T20:10:00Z | 12:10 PM | 61.86 | 15.51 | 13.23 | 15.22 | 25.97 | 29.89 | 14.38 | |
| SE677 | 2021-11-24T20:20:00Z | 12:20 PM | 62.43 | 15.42 | 13.42 | 15.44 | 25.21 | 29.01 | 14.71 | |
| SE677 | 2021-11-24T20:30:00Z | 12:30 PM | 62.8 | 15.47 | 10.5 | 12.08 | 22.92 | 26.38 | 15.09 | |
| SE677 | 2021-11-24T20:40:00Z | 12:40 PM | 62.9 | 15.35 | 11.48 | 13.21 | 25.78 | 29.67 | 14.99 | |
| SE677 | 2021-11-24T20:50:00Z | 12:50 PM | 63.09 | 15.03 | 11.75 | 13.52 | 20.57 | 23.67 | 14.67 | |
| SE677 | 2021-11-24T21:00:00Z | 1:00 PM | 62.87 | 14.94 | 11.53 | 13.27 | 19.11 | 21.99 | 14.35 | |
| SE677 | 2021-11-24T21:10:00Z | 1:10 PM | 63.17 | 14.74 | 10.5 | 12.08 | 23.49 | 27.03 | 14.29 | |
| SE677 | 2021-11-24T21:20:00Z | 1:20 PM | 63.69 | 14.45 | 9.1 | 10.47 | 17.14 | 19.72 | 14.26 | |
| SE677 | 2021-11-24T21:30:00Z | 1:30 PM | 63.76 | 14.12 | 8.95 | 10.3 | 17.14 | 19.72 | 13.8 | |
| SE677 | 2021-11-24T21:40:00Z | 1:40 PM | 63.71 | 13.87 | 12.28 | 14.13 | 22.22 | 25.57 | 13.35 | |
| SE677 | 2021-11-24T21:50:00Z | 1:50 PM | 63.72 | 13.73 | 13.38 | 15.4 | 20.76 | 23.89 | 13.13 | |
| SE677 | 2021-11-24T22:00:00Z | 2:00 PM | 63.8 | 13.5 | 14.03 | 16.15 | 24.51 | 28.21 | 12.82 | |
| SE677 | 2021-11-24T22:10:00Z | 2:10 PM | 63.8 | 13.14 | 14.38 | 16.55 | 23.62 | 27.18 | 12.22 | |
| SE677 | 2021-11-24T22:20:00Z | 2:20 PM | 63.52 | 13.13 | 15.51 | 17.85 | 28.82 | 33.17 | 11.97 | |
| SE677 | 2021-11-24T22:30:00Z | 2:30 PM | 63.51 | 13.01 | 15.22 | 17.51 | 23.31 | 26.82 | 11.76 | |
| SE677 | 2021-11-24T22:40:00Z | 2:40 PM | 63.66 | 12.79 | 13.41 | 15.43 | 25.71 | 29.59 | 11.5 | |
| SE677 | 2021-11-24T22:50:00Z | 2:50 PM | 63.28 | 12.61 | 15.21 | 17.5 | 25.78 | 29.67 | 10.89 | |
| SE677 | 2021-11-24T23:00:00Z | 3:00 PM | 63.32 | 12.41 | 14.95 | 17.2 | 26.16 | 30.1 | 10.56 | |
| SE677 | 2021-11-24T23:10:00Z | 3:10 PM | 63.41 | 12.39 | 12.73 | 14.65 | 23.31 | 26.82 | 10.6 | |
| SE677 | 2021-11-24T23:20:00Z | 3:20 PM | 63.21 | 12.53 | 13.76 | 15.83 | 23.24 | 26.74 | 10.69 | |
| SE677 | 2021-11-24T23:30:00Z | 3:30 PM | 63.01 | 12.73 | 12.24 | 14.09 | 20.95 | 24.11 | 10.88 | |
| SE677 | 2021-11-24T23:40:00Z | 3:40 PM | 62.77 | 12.34 | 13.93 | 16.03 | 20.76 | 23.89 | 10 | |
| SE677 | 2021-11-24T23:50:00Z | 3:50 PM | 62.41 | 12.15 | 13.82 | 15.9 | 22.48 | 25.87 | 9.37 | |
| SE677 | 2021-11-25T00:00:00Z | 4:00 PM | 61.96 | 12.18 | 10.52 | 12.11 | 19.3 | 22.21 | 9.07 | |
| SE677 | 2021-11-25T00:10:00Z | 4:10 PM | 61.45 | 12.16 | 7.32 | 8.42 | 13.65 | 15.71 | 8.63 | |
| SE677 | 2021-11-25T00:20:00Z | 4:20 PM | 60.84 | 12.42 | 5.22 | 6.01 | 9.52 | 10.96 | 8.61 | |
| SE677 | 2021-11-25T00:30:00Z | 4:30 PM | 60.49 | 12.71 | 6.34 | 7.3 | 14.16 | 16.3 | 8.84 | |
| SE677 | 2021-11-25T00:40:00Z | 4:40 PM | 60.16 | 13.03 | 5.35 | 6.16 | 11.75 | 13.52 | 9.12 | |
| SE677 | 2021-11-25T00:50:00Z | 4:50 PM | 59.67 | 13.28 | 6.97 | 8.02 | 16.7 | 19.22 | 9.15 | |
| SE677 | 2021-11-25T01:00:00Z | 5:00 PM | 58.54 | 13.83 | 3.34 | 3.84 | 7.43 | 8.55 | 9.14 | |
| SE677 | 2021-11-25T01:10:00Z | 5:10 PM | 57.97 | 14.3 | 3.59 | 4.13 | 7.11 | 8.18 | 9.42 | |
| SE677 | 2021-11-25T01:20:00Z | 5:20 PM | 58.45 | 14.2 | 6.81 | 7.84 | 12.25 | 14.1 | 9.65 | |
| SE677 | 2021-11-25T01:30:00Z | 5:30 PM | 58.14 | 14.34 | 3.93 | 4.52 | 6.86 | 7.89 | 9.62 | |
| SE677 | 2021-11-25T01:40:00Z | 5:40 PM | 56.99 | 14.91 | 2.72 | 3.13 | 4.89 | 5.63 | 9.55 | |
| SE677 | 2021-11-25T01:50:00Z | 5:50 PM | 56.59 | 14.62 | 5.34 | 6.15 | 13.02 | 14.98 | 8.79 | |
| SE677 | 2021-11-25T02:00:00Z | 6:00 PM | 57 | 13.84 | 4.54 | 5.22 | 9.65 | 11.11 | 7.92 | |
| SE677 | 2021-11-25T02:10:00Z | 6:10 PM | 56.11 | 14.23 | 4.49 | 5.17 | 8.76 | 10.08 | 7.81 | |
| SE677 | 2021-11-25T02:20:00Z | 6:20 PM | 55.48 | 14.56 | 3.28 | 3.77 | 5.71 | 6.57 | 7.8 | |
| SE677 | 2021-11-25T02:30:00Z | 6:30 PM | 55.72 | 14.48 | 5.58 | 6.42 | 10.73 | 12.35 | 7.88 | |
| SE677 | 2021-11-25T02:40:00Z | 6:40 PM | 57.28 | 13.72 | 8.52 | 9.8 | 14.98 | 17.24 | 7.95 | |
| SE677 | 2021-11-25T02:50:00Z | 6:50 PM | 57.02 | 13.98 | 7.37 | 8.48 | 13.78 | 15.86 | 8.15 | |
| SE677 | 2021-11-25T03:00:00Z | 7:00 PM | 56.49 | 14.3 | 3.5 | 4.03 | 10.1 | 11.62 | 8.22 | |
| SE677 | 2021-11-25T03:10:00Z | 7:10 PM | 55.82 | 14.62 | 4.78 | 5.5 | 15.36 | 17.68 | 8.17 | |
| SE677 | 2021-11-25T03:20:00Z | 7:20 PM | 56.52 | 14.24 | 4.86 | 5.59 | 10.54 | 12.13 | 8.16 | |
| SE677 | 2021-11-25T03:30:00Z | 7:30 PM | 56.76 | 14.18 | 5.02 | 5.78 | 9.78 | 11.25 | 8.26 | |
| SE677 | 2021-11-25T03:40:00Z | 7:40 PM | 56.48 | 14.31 | 4.33 | 4.98 | 8.12 | 9.34 | 8.23 | |
| SE677 | 2021-11-25T03:50:00Z | 7:50 PM | 56.56 | 14.22 | 4.32 | 4.97 | 13.33 | 15.34 | 8.16 | |
| SE677 | 2021-11-25T04:00:00Z | 8:00 PM | 56.73 | 14.2 | 4.73 | 5.44 | 11.75 | 13.52 | 8.26 | |
| SE677 | 2021-11-25T04:10:00Z | 8:10 PM | 56.38 | 14.36 | 2.69 | 3.1 | 5.84 | 6.72 | 8.23 | |
| SE677 | 2021-11-25T04:20:00Z | 8:20 PM | 54.82 | 15.17 | 2.69 | 3.1 | 6.73 | 7.74 | 8.17 | |
| SE677 | 2021-11-25T04:30:00Z | 8:30 PM | 54.39 | 15.53 | 2.94 | 3.38 | 7.93 | 9.13 | 8.34 | |
| SE677 | 2021-11-25T04:40:00Z | 8:40 PM | 56.25 | 14.61 | 5.37 | 6.18 | 13.02 | 14.98 | 8.5 | |
| SE677 | 2021-11-25T04:50:00Z | 8:50 PM | 56.92 | 14.17 | 6.8 | 7.83 | 14.03 | 16.15 | 8.37 | |
| SE677 | 2021-11-25T05:00:00Z | 9:00 PM | 57.22 | 14.03 | 7.34 | 8.45 | 14.29 | 16.44 | 8.39 | |
| SE677 | 2021-11-25T05:10:00Z | 9:10 PM | 57.15 | 14.01 | 8.57 | 9.86 | 17.01 | 19.57 | 8.31 | |
| SE677 | 2021-11-25T05:20:00Z | 9:20 PM | 56.86 | 14.08 | 5.59 | 6.43 | 12.5 | 14.38 | 8.18 | |
| SE677 | 2021-11-25T05:30:00Z | 9:30 PM | 56.55 | 14.27 | 7.64 | 8.79 | 14.29 | 16.44 | 8.23 | |
| SE677 | 2021-11-25T05:40:00Z | 9:40 PM | 56.83 | 14.03 | 9.05 | 10.41 | 17.84 | 20.53 | 8.08 | |
| SE677 | 2021-11-25T05:50:00Z | 9:50 PM | 56.79 | 13.99 | 7.15 | 8.23 | 14.35 | 16.51 | 7.99 | |
| SE677 | 2021-11-25T06:00:00Z | 10:00 PM | 56.53 | 14.11 | 7.16 | 8.24 | 13.78 | 15.86 | 7.96 | |

| | | | | | | | | | |
|-------|----------------------|----------|-------|-------|-------|-------|-------|-------|------|
| SE677 | 2021-11-25T05:50:00Z | 9:50 PM | 56.79 | 13.99 | 7.15 | 8.23 | 14.35 | 16.51 | 7.99 |
| SE677 | 2021-11-25T06:00:00Z | 10:00 PM | 56.53 | 14.11 | 7.16 | 8.24 | 13.78 | 15.86 | 7.96 |
| SE677 | 2021-11-25T06:10:00Z | 10:10 PM | 56.4 | 14.18 | 6.86 | 7.89 | 11.24 | 12.93 | 7.97 |
| SE677 | 2021-11-25T06:20:00Z | 10:20 PM | 56.54 | 14.06 | 8.26 | 9.51 | 15.17 | 17.46 | 7.89 |
| SE677 | 2021-11-25T06:30:00Z | 10:30 PM | 55.88 | 14.42 | 6.44 | 7.41 | 12.77 | 14.7 | 7.92 |
| SE677 | 2021-11-25T06:40:00Z | 10:40 PM | 56.12 | 14.35 | 9.23 | 10.62 | 16.38 | 18.85 | 8 |
| SE677 | 2021-11-25T06:50:00Z | 10:50 PM | 55.69 | 14.6 | 8.05 | 9.26 | 17.9 | 20.6 | 8.03 |
| SE677 | 2021-11-25T07:00:00Z | 11:00 PM | 56.03 | 14.21 | 8.95 | 10.3 | 16.07 | 18.49 | 7.72 |
| SE677 | 2021-11-25T07:10:00Z | 11:10 PM | 55.89 | 14.14 | 6.27 | 7.22 | 12.83 | 14.76 | 7.49 |
| SE677 | 2021-11-25T07:20:00Z | 11:20 PM | 55.73 | 14.15 | 7.41 | 8.53 | 16.82 | 19.36 | 7.38 |
| SE677 | 2021-11-25T07:30:00Z | 11:30 PM | 55.94 | 13.92 | 7.79 | 8.96 | 17.65 | 20.31 | 7.19 |
| SE677 | 2021-11-25T07:40:00Z | 11:40 PM | 55.87 | 13.87 | 11.04 | 12.7 | 22.92 | 26.38 | 7.06 |
| SE677 | 2021-11-25T07:50:00Z | 11:50 PM | 55.8 | 13.72 | 9.24 | 10.63 | 16.19 | 18.63 | 6.77 |
| SE677 | 2021-11-25T08:00:00Z | 12:00 AM | 55.59 | 13.72 | 9.47 | 10.9 | 22.66 | 26.08 | 6.6 |
| SE677 | 2021-11-25T08:10:00Z | 12:10 AM | 55.52 | 13.65 | 10.45 | 12.03 | 20.26 | 23.31 | 6.43 |
| SE677 | 2021-11-25T08:20:00Z | 12:20 AM | 55.45 | 13.66 | 7.85 | 9.03 | 15.55 | 17.89 | 6.39 |
| SE677 | 2021-11-25T08:30:00Z | 12:30 AM | 55.38 | 13.67 | 8.92 | 10.26 | 17.59 | 20.24 | 6.35 |
| SE677 | 2021-11-25T08:40:00Z | 12:40 AM | 55.56 | 13.59 | 9.83 | 11.31 | 18.86 | 21.7 | 6.37 |
| SE677 | 2021-11-25T08:50:00Z | 12:50 AM | 55.3 | 13.67 | 8.41 | 9.68 | 16.44 | 18.92 | 6.29 |
| SE677 | 2021-11-25T09:00:00Z | 1:00 AM | 55.19 | 13.59 | 9.18 | 10.56 | 17.34 | 19.95 | 6.07 |
| SE677 | 2021-11-25T09:10:00Z | 1:10 AM | 55.53 | 13.28 | 10.96 | 12.61 | 18.73 | 21.55 | 5.84 |
| SE677 | 2021-11-25T09:20:00Z | 1:20 AM | 55.46 | 13.23 | 11.54 | 13.28 | 19.55 | 22.5 | 5.7 |
| SE677 | 2021-11-25T09:30:00Z | 1:30 AM | 55.07 | 13.48 | 11.94 | 13.74 | 21.39 | 24.62 | 5.8 |
| SE677 | 2021-11-25T09:40:00Z | 1:40 AM | 54.87 | 13.67 | 13.03 | 14.99 | 24.51 | 28.21 | 5.94 |
| SE677 | 2021-11-25T09:50:00Z | 1:50 AM | 54.69 | 13.75 | 12.63 | 14.53 | 20.26 | 23.31 | 5.92 |
| SE677 | 2021-11-25T10:00:00Z | 2:00 AM | 54.65 | 13.56 | 10.51 | 12.09 | 19.81 | 22.8 | 5.59 |
| SE677 | 2021-11-25T10:10:00Z | 2:10 AM | 54.95 | 13.23 | 14.45 | 16.63 | 25.08 | 28.86 | 5.3 |
| SE677 | 2021-11-25T10:20:00Z | 2:20 AM | 54.9 | 13.21 | 15.02 | 17.28 | 24.38 | 28.06 | 5.22 |
| SE677 | 2021-11-25T10:30:00Z | 2:30 AM | 55.13 | 12.9 | 16.15 | 18.59 | 27.81 | 32 | 4.9 |
| SE677 | 2021-11-25T10:40:00Z | 2:40 AM | 54.55 | 13.22 | 11.71 | 13.48 | 20.7 | 23.82 | 4.96 |
| SE677 | 2021-11-25T10:50:00Z | 2:50 AM | 54.61 | 13.14 | 13.83 | 15.92 | 28.76 | 33.1 | 4.88 |
| SE677 | 2021-11-25T11:00:00Z | 3:00 AM | 54.91 | 12.85 | 16.33 | 18.79 | 24 | 27.62 | 4.64 |
| SE677 | 2021-11-25T11:10:00Z | 3:10 AM | 54.95 | 12.56 | 13.32 | 15.33 | 23.18 | 26.68 | 4.18 |
| SE677 | 2021-11-25T11:20:00Z | 3:20 AM | 55.13 | 12.06 | 13.16 | 15.14 | 22.73 | 26.16 | 3.45 |
| SE677 | 2021-11-25T11:30:00Z | 3:30 AM | 54.79 | 12.37 | 12.83 | 14.76 | 20.83 | 23.97 | 3.73 |
| SE677 | 2021-11-25T11:40:00Z | 3:40 AM | 54.63 | 12.65 | 13.99 | 16.1 | 28.38 | 32.66 | 4.08 |
| SE677 | 2021-11-25T11:50:00Z | 3:50 AM | 54.76 | 12.62 | 16.29 | 18.75 | 28.44 | 32.73 | 4.13 |
| SE677 | 2021-11-25T12:00:00Z | 4:00 AM | 54.29 | 12.91 | 13.84 | 15.93 | 20.45 | 23.53 | 4.24 |
| SE677 | 2021-11-25T12:10:00Z | 4:10 AM | 54.11 | 13.03 | 17.08 | 19.66 | 28.51 | 32.81 | 4.3 |
| SE677 | 2021-11-25T12:20:00Z | 4:20 AM | 54.12 | 12.99 | 16 | 18.41 | 26.86 | 30.91 | 4.24 |
| SE677 | 2021-11-25T12:30:00Z | 4:30 AM | 53.95 | 13.01 | 14.77 | 17 | 25.97 | 29.89 | 4.14 |
| SE677 | 2021-11-25T12:40:00Z | 4:40 AM | 53.6 | 13.12 | 13.12 | 15.1 | 20.57 | 23.67 | 4.04 |
| SE677 | 2021-11-25T12:50:00Z | 4:50 AM | 53.39 | 13.29 | 15.1 | 17.38 | 27.49 | 31.63 | 4.15 |
| SE677 | 2021-11-25T13:00:00Z | 5:00 AM | 53.18 | 13.36 | 14.36 | 16.53 | 26.03 | 29.95 | 4.09 |
| SE677 | 2021-11-25T13:10:00Z | 5:10 AM | 53.4 | 13.08 | 13.33 | 15.34 | 22.54 | 25.94 | 3.81 |
| SE677 | 2021-11-25T13:20:00Z | 5:20 AM | 53.39 | 12.96 | 11.49 | 13.22 | 19.49 | 22.43 | 3.61 |
| SE677 | 2021-11-25T13:30:00Z | 5:30 AM | 53.29 | 12.94 | 9.35 | 10.76 | 14.92 | 17.17 | 3.5 |
| SE677 | 2021-11-25T13:40:00Z | 5:40 AM | 53.15 | 12.91 | 8.69 | 10 | 15.3 | 17.61 | 3.34 |
| SE677 | 2021-11-25T13:50:00Z | 5:50 AM | 53.34 | 12.75 | 10.33 | 11.89 | 19.11 | 21.99 | 3.22 |
| SE677 | 2021-11-25T14:00:00Z | 6:00 AM | 53.35 | 12.76 | 11.16 | 12.84 | 18.6 | 21.4 | 3.25 |
| SE677 | 2021-11-25T14:10:00Z | 6:10 AM | 53.24 | 12.83 | 10.97 | 12.62 | 16.95 | 19.51 | 3.27 |
| SE677 | 2021-11-25T14:20:00Z | 6:20 AM | 53.34 | 12.82 | 11.35 | 13.06 | 22.92 | 26.38 | 3.34 |
| SE677 | 2021-11-25T14:30:00Z | 6:30 AM | 53.22 | 12.81 | 11.09 | 12.76 | 24 | 27.62 | 3.23 |
| SE677 | 2021-11-25T14:40:00Z | 6:40 AM | 52.87 | 12.95 | 9.34 | 10.75 | 18.54 | 21.34 | 3.18 |
| SE677 | 2021-11-25T14:50:00Z | 6:50 AM | 52.85 | 13.03 | 8.33 | 9.59 | 19.87 | 22.87 | 3.29 |
| SE677 | 2021-11-25T15:00:00Z | 7:00 AM | 52.57 | 13.29 | 9.17 | 10.55 | 17.65 | 20.31 | 3.49 |
| SE677 | 2021-11-25T15:10:00Z | 7:10 AM | 52.7 | 13.13 | 9.33 | 10.74 | 21.78 | 25.06 | 3.34 |
| SE677 | 2021-11-25T15:20:00Z | 7:20 AM | 52.86 | 13.01 | 9.26 | 10.66 | 18.09 | 20.82 | 3.27 |
| SE677 | 2021-11-25T15:30:00Z | 7:30 AM | 53.3 | 12.82 | 10.26 | 11.81 | 20.45 | 23.53 | 3.31 |
| SE677 | 2021-11-25T15:40:00Z | 7:40 AM | 53.68 | 12.65 | 9.81 | 11.29 | 17.59 | 20.24 | 3.32 |
| SE677 | 2021-11-25T15:50:00Z | 7:50 AM | 53.9 | 12.54 | 9.96 | 11.46 | 20.95 | 24.11 | 3.31 |
| SE677 | 2021-11-25T16:00:00Z | 8:00 AM | 54.27 | 12.36 | 11.28 | 12.98 | 21.08 | 24.26 | 3.3 |
| SE677 | 2021-11-25T16:10:00Z | 8:10 AM | 54.22 | 12.54 | 11.42 | 13.14 | 21.91 | 25.21 | 3.57 |
| SE677 | 2021-11-25T16:20:00Z | 8:20 AM | 54.41 | 12.51 | 11.72 | 13.49 | 21.59 | 24.85 | 3.67 |
| SE677 | 2021-11-25T16:30:00Z | 8:30 AM | 54.74 | 12.52 | 10.91 | 12.56 | 20 | 23.02 | 3.94 |
| SE677 | 2021-11-25T16:40:00Z | 8:40 AM | 55.21 | 12.67 | 9.72 | 11.19 | 19.87 | 22.87 | 4.57 |
| SE677 | 2021-11-25T16:50:00Z | 8:50 AM | 55.62 | 12.74 | 11.56 | 13.3 | 27.49 | 31.63 | 5.02 |
| SE677 | 2021-11-25T17:00:00Z | 9:00 AM | 55.89 | 12.69 | 12.13 | 13.96 | 22.66 | 26.08 | 5.15 |
| SE677 | 2021-11-25T17:10:00Z | 9:10 AM | 56.25 | 12.71 | 10.84 | 12.47 | 22.66 | 26.08 | 5.47 |
| SE677 | 2021-11-25T17:20:00Z | 9:20 AM | 56.45 | 12.57 | 12.8 | 14.73 | 20.7 | 23.82 | 5.39 |
| SE677 | 2021-11-25T17:30:00Z | 9:30 AM | 57.25 | 12.32 | 10.73 | 12.35 | 21.33 | 24.55 | 5.59 |
| SE677 | 2021-11-25T17:40:00Z | 9:40 AM | 58.14 | 11.7 | 11.33 | 13.04 | 23.62 | 27.18 | 5.18 |
| SE677 | 2021-11-25T17:50:00Z | 9:50 AM | 58.46 | 11.38 | 12.04 | 13.86 | 20.45 | 23.53 | 4.84 |
| SE677 | 2021-11-25T18:00:00Z | 10:00 AM | 58.93 | 11.03 | 11.56 | 13.3 | 21.46 | 24.7 | 4.53 |

| | | | | | | | | | |
|-------|----------------------|----------|-------|-------|-------|-------|-------|-------|-------|
| SE677 | 2021-11-25T18:00:00Z | 10:00 AM | 58.93 | 11.03 | 11.56 | 13.3 | 21.46 | 24.7 | 4.53 |
| SE677 | 2021-11-25T18:10:00Z | 10:10 AM | 59.52 | 10.46 | 10.84 | 12.47 | 19.49 | 22.43 | 3.86 |
| SE677 | 2021-11-25T18:20:00Z | 10:20 AM | 60.35 | 10.42 | 11.51 | 13.25 | 23.87 | 27.47 | 4.43 |
| SE677 | 2021-11-25T18:30:00Z | 10:30 AM | 59.69 | 10.27 | 12.92 | 14.87 | 22.92 | 26.38 | 3.6 |
| SE677 | 2021-11-25T18:40:00Z | 10:40 AM | 59.05 | 11.02 | 14.03 | 16.15 | 25.21 | 29.01 | 4.61 |
| SE677 | 2021-11-25T18:50:00Z | 10:50 AM | 58.91 | 11.32 | 15.75 | 18.12 | 26.92 | 30.98 | 5.08 |
| SE677 | 2021-11-25T19:00:00Z | 11:00 AM | 59.58 | 11.03 | 12.23 | 14.07 | 22.1 | 25.43 | 5.04 |
| SE677 | 2021-11-25T19:10:00Z | 11:10 AM | 60.22 | 10.4 | 12.3 | 14.15 | 22.22 | 25.57 | 4.28 |
| SE677 | 2021-11-25T19:20:00Z | 11:20 AM | 60.35 | 10.14 | 11.64 | 13.4 | 21.78 | 25.06 | 3.84 |
| SE677 | 2021-11-25T19:30:00Z | 11:30 AM | 60.8 | 9.74 | 11.11 | 12.79 | 23.11 | 26.59 | 3.34 |
| SE677 | 2021-11-25T19:40:00Z | 11:40 AM | 60.54 | 9.81 | 11.97 | 13.77 | 20.83 | 23.97 | 3.29 |
| SE677 | 2021-11-25T19:50:00Z | 11:50 AM | 60.79 | 9.48 | 13.51 | 15.55 | 23.68 | 27.25 | 2.75 |
| SE677 | 2021-11-25T20:00:00Z | 12:00 PM | 61.39 | 8.98 | 14.12 | 16.25 | 28.38 | 32.66 | 2.07 |
| SE677 | 2021-11-25T20:10:00Z | 12:10 PM | 62.04 | 8.55 | 12.78 | 14.71 | 28.13 | 32.37 | 1.53 |
| SE677 | 2021-11-25T20:20:00Z | 12:20 PM | 61.72 | 8.54 | 16.07 | 18.49 | 25.4 | 29.23 | 1.26 |
| SE677 | 2021-11-25T20:30:00Z | 12:30 PM | 61.9 | 8.56 | 15.52 | 17.86 | 24.96 | 28.72 | 1.45 |
| SE677 | 2021-11-25T20:40:00Z | 12:40 PM | 61.88 | 8.5 | 16.21 | 18.65 | 29.08 | 33.46 | 1.29 |
| SE677 | 2021-11-25T20:50:00Z | 12:50 PM | 61.89 | 8.51 | 17.87 | 20.56 | 28.51 | 32.81 | 1.32 |
| SE677 | 2021-11-25T21:00:00Z | 1:00 PM | 62.12 | 8.38 | 15.83 | 18.22 | 25.71 | 29.59 | 1.17 |
| SE677 | 2021-11-25T21:10:00Z | 1:10 PM | 62.21 | 8.2 | 14.03 | 16.15 | 26.23 | 30.18 | 0.78 |
| SE677 | 2021-11-25T21:20:00Z | 1:20 PM | 62.45 | 8.26 | 14.36 | 16.53 | 25.27 | 29.08 | 1.12 |
| SE677 | 2021-11-25T21:30:00Z | 1:30 PM | 62.49 | 8.38 | 13.95 | 16.05 | 23.18 | 26.68 | 1.45 |
| SE677 | 2021-11-25T21:40:00Z | 1:40 PM | 62.57 | 8.3 | 13.52 | 15.56 | 21.27 | 24.48 | 1.31 |
| SE677 | 2021-11-25T21:50:00Z | 1:50 PM | 62.46 | 8.28 | 11.57 | 13.31 | 20 | 23.02 | 1.18 |
| SE677 | 2021-11-25T22:00:00Z | 2:00 PM | 62.61 | 8.22 | 14.24 | 16.39 | 22.41 | 25.79 | 1.14 |
| SE677 | 2021-11-25T22:10:00Z | 2:10 PM | 62.3 | 8.2 | 14.9 | 17.15 | 28.38 | 32.66 | 0.85 |
| SE677 | 2021-11-25T22:20:00Z | 2:20 PM | 62.85 | 8.23 | 11.92 | 13.72 | 20.45 | 23.53 | 1.35 |
| SE677 | 2021-11-25T22:30:00Z | 2:30 PM | 63.05 | 8.13 | 13.11 | 15.09 | 22.48 | 25.87 | 1.24 |
| SE677 | 2021-11-25T22:40:00Z | 2:40 PM | 63.24 | | 12.43 | 14.3 | 23.49 | 27.03 | |
| SE677 | 2021-11-25T22:50:00Z | 2:50 PM | 63.28 | 7.94 | 12.88 | 14.82 | 22.16 | 25.5 | 0.92 |
| SE677 | 2021-11-25T23:00:00Z | 3:00 PM | 63.39 | 7.84 | 12.39 | 14.26 | 20.83 | 23.97 | 0.74 |
| SE677 | 2021-11-25T23:10:00Z | 3:10 PM | 63.43 | 7.69 | 15.13 | 17.41 | 25.21 | 29.01 | 0.37 |
| SE677 | 2021-11-25T23:20:00Z | 3:20 PM | 63.61 | 7.65 | 14.04 | 16.16 | 22.79 | 26.23 | 0.39 |
| SE677 | 2021-11-25T23:30:00Z | 3:30 PM | 63.57 | 7.57 | 10.72 | 12.34 | 16.63 | 19.14 | 0.14 |
| SE677 | 2021-11-25T23:40:00Z | 3:40 PM | 63.59 | 7.54 | 11.32 | 13.03 | 22.03 | 25.35 | 0.08 |
| SE677 | 2021-11-25T23:50:00Z | 3:50 PM | 63.42 | 7.6 | 7.73 | 8.9 | 13.9 | 16 | 0.11 |
| SE677 | 2021-11-26T00:00:00Z | 4:00 PM | 62.98 | 7.72 | 7.38 | 8.49 | 15.81 | 18.19 | 0.11 |
| SE677 | 2021-11-26T00:10:00Z | 4:10 PM | 62.35 | 7.87 | 8.19 | 9.42 | 15.55 | 17.89 | 0.03 |
| SE677 | 2021-11-26T00:20:00Z | 4:20 PM | 62.16 | 7.81 | 8.19 | 9.42 | 15.88 | 18.27 | -0.27 |
| SE677 | 2021-11-26T00:30:00Z | 4:30 PM | 61.61 | 7.96 | 6.94 | 7.99 | 13.46 | 15.49 | -0.29 |
| SE677 | 2021-11-26T00:40:00Z | 4:40 PM | 61.1 | 8.02 | 5.19 | 5.97 | 10.79 | 12.42 | -0.52 |
| SE677 | 2021-11-26T00:50:00Z | 4:50 PM | 60.55 | 8.08 | 3.24 | 3.73 | 8.57 | 9.86 | -0.78 |
| SE677 | 2021-11-26T01:00:00Z | 5:00 PM | 60.49 | 8.04 | 4.08 | 4.7 | 9.39 | 10.81 | -0.93 |
| SE677 | 2021-11-26T01:10:00Z | 5:10 PM | 60 | 8.13 | 3.58 | 4.12 | 7.74 | 8.91 | -1.07 |
| SE677 | 2021-11-26T01:20:00Z | 5:20 PM | 59.92 | 8.13 | 2.98 | 3.43 | 6.41 | 7.38 | -1.13 |
| SE677 | 2021-11-26T01:30:00Z | 5:30 PM | 60.22 | 8.05 | 5.35 | 6.16 | 11.94 | 13.74 | -1.11 |
| SE677 | 2021-11-26T01:40:00Z | 5:40 PM | 60.65 | 7.93 | 6.09 | 7.01 | 12.5 | 14.38 | -1.09 |
| SE677 | 2021-11-26T01:50:00Z | 5:50 PM | 60.66 | 7.87 | 5.83 | 6.71 | 15.24 | 17.54 | -1.24 |
| SE677 | 2021-11-26T02:00:00Z | 6:00 PM | 60.57 | 7.85 | 5.07 | 5.83 | 11.5 | 13.23 | -1.36 |
| SE677 | 2021-11-26T02:10:00Z | 6:10 PM | 60.64 | 7.76 | 4.63 | 5.33 | 11.11 | 12.79 | -1.55 |
| SE677 | 2021-11-26T02:20:00Z | 6:20 PM | 60.8 | 7.77 | 5.22 | 6.01 | 10.6 | 12.2 | -1.4 |
| SE677 | 2021-11-26T02:30:00Z | 6:30 PM | 60.8 | 7.7 | 4.44 | 5.11 | 12 | 13.81 | -1.59 |
| SE677 | 2021-11-26T02:40:00Z | 6:40 PM | 60.81 | 7.75 | 4.43 | 5.1 | 8.64 | 9.94 | -1.45 |
| SE677 | 2021-11-26T02:50:00Z | 6:50 PM | 60.87 | 7.76 | 5.46 | 6.28 | 11.18 | 12.87 | -1.38 |
| SE677 | 2021-11-26T03:00:00Z | 7:00 PM | 60.86 | 7.78 | 5.12 | 5.89 | 10.48 | 12.06 | -1.33 |
| SE677 | 2021-11-26T03:10:00Z | 7:10 PM | 60.41 | 7.89 | 4.5 | 5.18 | 9.58 | 11.02 | -1.38 |
| SE677 | 2021-11-26T03:20:00Z | 7:20 PM | 60.57 | 7.86 | 5.36 | 6.17 | 13.21 | 15.2 | -1.34 |
| SE677 | 2021-11-26T03:30:00Z | 7:30 PM | 60.46 | 7.9 | 4.57 | 5.26 | 11.5 | 13.23 | -1.31 |
| SE677 | 2021-11-26T03:40:00Z | 7:40 PM | 60.27 | 7.99 | 3.99 | 4.59 | 9.08 | 10.45 | -1.22 |
| SE677 | 2021-11-26T03:50:00Z | 7:50 PM | 59.89 | 8.12 | 4.51 | 5.19 | 9.91 | 11.4 | -1.18 |
| SE677 | 2021-11-26T04:00:00Z | 8:00 PM | 60.22 | 8.07 | 4.82 | 5.55 | 9.2 | 10.59 | -1.06 |
| SE677 | 2021-11-26T04:10:00Z | 8:10 PM | 60.04 | 8.18 | 4.36 | 5.02 | 9.39 | 10.81 | -0.91 |
| SE677 | 2021-11-26T04:20:00Z | 8:20 PM | 59.96 | 8.29 | 4.62 | 5.32 | 10.41 | 11.98 | -0.69 |
| SE677 | 2021-11-26T04:30:00Z | 8:30 PM | 60.36 | 8.33 | 5.75 | 6.62 | 16.13 | 18.56 | -0.29 |
| SE677 | 2021-11-26T04:40:00Z | 8:40 PM | 61.28 | 8.23 | 9.61 | 11.06 | 18.47 | 21.25 | 0.16 |
| SE677 | 2021-11-26T04:50:00Z | 8:50 PM | 61.33 | 8.22 | 6.44 | 7.41 | 13.52 | 15.56 | 0.17 |
| SE677 | 2021-11-26T05:00:00Z | 9:00 PM | 60.76 | 8.38 | 6.35 | 7.31 | 12.83 | 14.76 | 0.14 |
| SE677 | 2021-11-26T05:10:00Z | 9:10 PM | 60.89 | 8.33 | 7.56 | 8.7 | 13.78 | 15.86 | 0.11 |
| SE677 | 2021-11-26T05:20:00Z | 9:20 PM | 60.85 | 8.43 | 4.94 | 5.68 | 12.77 | 14.7 | 0.33 |
| SE677 | 2021-11-26T05:30:00Z | 9:30 PM | 60.75 | 8.42 | 6.24 | 7.18 | 14.35 | 16.51 | 0.23 |
| SE677 | 2021-11-26T05:40:00Z | 9:40 PM | 61.11 | 8.24 | 6.11 | 7.03 | 13.27 | 15.27 | 0.05 |
| SE677 | 2021-11-26T05:50:00Z | 9:50 PM | 61 | 8.25 | 4.55 | 5.24 | 14.35 | 16.51 | -0.01 |

| | | | | | | | | | |
|-------|----------------------|----------|-------|-------|------|-------|-------|-------|-------|
| SE677 | 2021-11-26T06:00:00Z | 10:00 PM | 60.1 | 8.46 | 3.56 | 4.1 | 9.39 | 10.81 | -0.17 |
| SE677 | 2021-11-26T06:10:00Z | 10:10 PM | 60.21 | 8.42 | 5.32 | 6.12 | 13.02 | 14.98 | -0.18 |
| SE677 | 2021-11-26T06:20:00Z | 10:20 PM | 60.89 | 8.28 | 6.37 | 7.33 | 15.55 | 17.89 | -0.01 |
| SE677 | 2021-11-26T06:30:00Z | 10:30 PM | 61.14 | 8.25 | 7.81 | 8.99 | 13.4 | 15.42 | 0.1 |
| SE677 | 2021-11-26T06:40:00Z | 10:40 PM | 61.53 | 8.31 | 8.58 | 9.87 | 13.33 | 15.34 | 0.55 |
| SE677 | 2021-11-26T06:50:00Z | 10:50 PM | 61.14 | 8.61 | 8.53 | 9.82 | 16.26 | 18.71 | 0.99 |
| SE677 | 2021-11-26T07:00:00Z | 11:00 PM | 60.79 | 8.7 | 9.78 | 11.25 | 18.22 | 20.97 | 0.94 |
| SE677 | 2021-11-26T07:10:00Z | 11:10 PM | 59.42 | 9.13 | 7.82 | 9 | 13.02 | 14.98 | 0.91 |
| SE677 | 2021-11-26T07:20:00Z | 11:20 PM | 56.89 | 9.86 | 5.91 | 6.8 | 11.56 | 13.3 | 0.57 |
| SE677 | 2021-11-26T07:30:00Z | 11:30 PM | 55.22 | 10.48 | 6.29 | 7.24 | 11.5 | 13.23 | 0.55 |
| SE677 | 2021-11-26T07:40:00Z | 11:40 PM | 54.84 | 10.71 | 4.89 | 5.63 | 9.33 | 10.74 | 0.71 |
| SE677 | 2021-11-26T07:50:00Z | 11:50 PM | 54.74 | 10.81 | 4.78 | 5.5 | 9.97 | 11.47 | 0.83 |
| SE677 | 2021-11-26T08:00:00Z | 12:00 AM | 54.26 | 11 | 5 | 5.75 | 9.72 | 11.19 | 0.82 |
| SE677 | 2021-11-26T08:10:00Z | 12:10 AM | 53.36 | 11.37 | 2.94 | 3.38 | 11.75 | 13.52 | 0.81 |
| SE677 | 2021-11-26T08:20:00Z | 12:20 AM | 51.53 | 12.14 | 0.65 | 0.75 | 2.79 | 3.21 | 0.75 |
| SE677 | 2021-11-26T08:30:00Z | 12:30 AM | 50.26 | 12.79 | 1.76 | 2.03 | 3.87 | 4.45 | 0.84 |
| SE677 | 2021-11-26T08:40:00Z | 12:40 AM | 50.74 | 12.64 | 2.64 | 3.04 | 7.37 | 8.48 | 0.97 |
| SE677 | 2021-11-26T08:50:00Z | 12:50 AM | 51.38 | 12.37 | 2.67 | 3.07 | 6.67 | 7.68 | 1.02 |
| SE677 | 2021-11-26T09:00:00Z | 1:00 AM | 51.48 | 12.27 | 3.3 | 3.8 | 6.6 | 7.6 | 0.93 |
| SE677 | 2021-11-26T09:10:00Z | 1:10 AM | 51.71 | 12.18 | 4.69 | 5.4 | 11.68 | 13.44 | 0.96 |
| SE677 | 2021-11-26T09:20:00Z | 1:20 AM | 51.64 | 12.21 | 4.82 | 5.55 | 11.11 | 12.79 | 0.95 |
| SE677 | 2021-11-26T09:30:00Z | 1:30 AM | 52.17 | 11.87 | 5.71 | 6.57 | 15.43 | 17.76 | 0.78 |
| SE677 | 2021-11-26T09:40:00Z | 1:40 AM | 52.47 | 11.66 | 5.52 | 6.35 | 13.52 | 15.56 | 0.64 |
| SE677 | 2021-11-26T09:50:00Z | 1:50 AM | 52.38 | 11.67 | 4.44 | 5.11 | 11.43 | 13.15 | 0.59 |
| SE677 | 2021-11-26T10:00:00Z | 2:00 AM | 52.22 | 11.72 | 4.39 | 5.05 | 12 | 13.81 | 0.55 |
| SE677 | 2021-11-26T10:10:00Z | 2:10 AM | 52.43 | 11.67 | 4.13 | 4.75 | 10.73 | 12.35 | 0.63 |
| SE677 | 2021-11-26T10:20:00Z | 2:20 AM | 52.31 | 11.76 | 2.95 | 3.39 | 7.55 | 8.69 | 0.69 |
| SE677 | 2021-11-26T10:30:00Z | 2:30 AM | 52.58 | 11.69 | 5.46 | 6.28 | 10.92 | 12.57 | 0.78 |
| SE677 | 2021-11-26T10:40:00Z | 2:40 AM | 52.91 | 11.63 | 4.45 | 5.12 | 11.87 | 13.66 | 0.93 |
| SE677 | 2021-11-26T10:50:00Z | 2:50 AM | 53.12 | 11.57 | 4.32 | 4.97 | 9.97 | 11.47 | 0.99 |
| SE677 | 2021-11-26T11:00:00Z | 3:00 AM | 53.47 | 11.49 | 5.07 | 5.83 | 11.68 | 13.44 | 1.12 |
| SE677 | 2021-11-26T11:10:00Z | 3:10 AM | 53.69 | 11.44 | 5.42 | 6.24 | 12.57 | 14.47 | 1.2 |
| SE677 | 2021-11-26T11:20:00Z | 3:20 AM | 53.66 | 11.54 | 5.28 | 6.08 | 10.92 | 12.57 | 1.36 |
| SE677 | 2021-11-26T11:30:00Z | 3:30 AM | 53.68 | 11.68 | 4.83 | 5.56 | 9.85 | 11.34 | 1.63 |
| SE677 | 2021-11-26T11:40:00Z | 3:40 AM | 54.23 | 11.49 | 4.85 | 5.58 | 10.1 | 11.62 | 1.72 |
| SE677 | 2021-11-26T11:50:00Z | 3:50 AM | 53.91 | 11.58 | 4.79 | 5.51 | 11.75 | 13.52 | 1.63 |
| SE677 | 2021-11-26T12:00:00Z | 4:00 AM | 53.45 | 11.79 | 4.47 | 5.14 | 8.7 | 10.01 | 1.65 |
| SE677 | 2021-11-26T12:10:00Z | 4:10 AM | 53.43 | 11.92 | 3.22 | 3.71 | 6.92 | 7.96 | 1.86 |
| SE677 | 2021-11-26T12:20:00Z | 4:20 AM | 51.91 | 12.58 | 1.72 | 1.98 | 3.75 | 4.32 | 1.8 |
| SE677 | 2021-11-26T12:30:00Z | 4:30 AM | 49.72 | 13.59 | 0.77 | 0.89 | 1.78 | 2.05 | 1.69 |
| SE677 | 2021-11-26T12:40:00Z | 4:40 AM | 49.63 | 13.77 | 1.59 | 1.83 | 4.13 | 4.75 | 1.89 |
| SE677 | 2021-11-26T12:50:00Z | 4:50 AM | 49.29 | 14.33 | 1.85 | 2.13 | 3.68 | 4.23 | 2.47 |
| SE677 | 2021-11-26T13:00:00Z | 5:00 AM | 49.6 | 14.14 | 1.84 | 2.12 | 4.64 | 5.34 | 2.43 |
| SE677 | 2021-11-26T13:10:00Z | 5:10 AM | 50.83 | 13.4 | 0.93 | 1.07 | 3.43 | 3.95 | 2.28 |
| SE677 | 2021-11-26T13:20:00Z | 5:20 AM | 51.55 | 12.96 | 1.11 | 1.28 | 3.68 | 4.23 | 2.14 |
| SE677 | 2021-11-26T13:30:00Z | 5:30 AM | 50.4 | 13.44 | 0.72 | 0.83 | 2.98 | 3.43 | 2 |
| SE677 | 2021-11-26T13:40:00Z | 5:40 AM | 49.25 | 13.9 | 0.95 | 1.09 | 2.92 | 3.36 | 1.79 |
| SE677 | 2021-11-26T13:50:00Z | 5:50 AM | 48.28 | 14.37 | 1.27 | 1.46 | 4.13 | 4.75 | 1.71 |
| SE677 | 2021-11-26T14:00:00Z | 6:00 AM | 48.1 | 14.49 | 0.78 | 0.9 | 2.98 | 3.43 | 1.74 |
| SE677 | 2021-11-26T14:10:00Z | 6:10 AM | 49.57 | 13.5 | 2.35 | 2.7 | 8.38 | 9.64 | 1.43 |
| SE677 | 2021-11-26T14:20:00Z | 6:20 AM | 52.64 | 11.62 | 3.66 | 4.21 | 11.18 | 12.87 | 0.7 |
| SE677 | 2021-11-26T14:30:00Z | 6:30 AM | 53.36 | 11.16 | 6.86 | 7.89 | 15.81 | 18.19 | 0.42 |
| SE677 | 2021-11-26T14:40:00Z | 6:40 AM | 53.73 | 10.95 | 5.84 | 6.72 | 15.3 | 17.61 | 0.31 |
| SE677 | 2021-11-26T14:50:00Z | 6:50 AM | 53.18 | 11.09 | 7.66 | 8.81 | 14.54 | 16.73 | 0.15 |
| SE677 | 2021-11-26T15:00:00Z | 7:00 AM | 52.78 | 11.13 | 7.31 | 8.41 | 13.02 | 14.98 | -0.09 |
| SE677 | 2021-11-26T15:10:00Z | 7:10 AM | 54.37 | 10.26 | 6.82 | 7.85 | 12.06 | 13.88 | -0.55 |
| SE677 | 2021-11-26T15:20:00Z | 7:20 AM | 56.21 | 9.43 | 5.43 | 6.25 | 9.39 | 10.81 | -0.89 |
| SE677 | 2021-11-26T15:30:00Z | 7:30 AM | 56.93 | 9.18 | 3.05 | 3.51 | 7.49 | 8.62 | -0.89 |
| SE677 | 2021-11-26T15:40:00Z | 7:40 AM | 58 | 8.87 | 2.38 | 2.74 | 7.49 | 8.62 | -0.78 |
| SE677 | 2021-11-26T15:50:00Z | 7:50 AM | 57.16 | 9.74 | 2.3 | 2.65 | 4.83 | 5.56 | 0.52 |
| SE677 | 2021-11-26T16:00:00Z | 8:00 AM | 58.53 | 9.55 | 3.31 | 3.81 | 5.78 | 6.65 | 1.17 |
| SE677 | 2021-11-26T16:10:00Z | 8:10 AM | 60.14 | 9.09 | 3.69 | 4.25 | 9.39 | 10.81 | 1.37 |
| SE677 | 2021-11-26T16:20:00Z | 8:20 AM | 60.55 | 8.54 | 5.74 | 6.61 | 10.35 | 11.91 | 0.37 |
| SE677 | 2021-11-26T16:30:00Z | 8:30 AM | 60.53 | 8.8 | 3.69 | 4.25 | 7.43 | 8.55 | 0.98 |
| SE677 | 2021-11-26T16:40:00Z | 8:40 AM | 58.86 | 9.3 | 5.83 | 6.71 | 11.04 | 12.7 | 0.86 |
| SE677 | 2021-11-26T16:50:00Z | 8:50 AM | 57.92 | 9.55 | 3.53 | 4.06 | 8.7 | 10.01 | 0.7 |
| SE677 | 2021-11-26T17:00:00Z | 9:00 AM | 57.24 | 9.69 | 4.39 | 5.05 | 11.56 | 13.3 | 0.48 |
| SE677 | 2021-11-26T17:10:00Z | 9:10 AM | 57.03 | 9.9 | 4.64 | 5.34 | 13.52 | 15.56 | 0.76 |
| SE677 | 2021-11-26T17:20:00Z | 9:20 AM | 56.95 | 10.05 | 3.49 | 4.02 | 11.94 | 13.74 | 1.02 |
| SE677 | 2021-11-26T17:30:00Z | 9:30 AM | 57.18 | 10.05 | 3.35 | 3.86 | 9.33 | 10.74 | 1.2 |
| SE677 | 2021-11-26T17:40:00Z | 9:40 AM | 56.82 | 10.41 | 3.73 | 4.29 | 13.27 | 15.27 | 1.66 |
| SE677 | 2021-11-26T17:50:00Z | 9:50 AM | 57.23 | 10.2 | 4.54 | 5.22 | 14.67 | 16.88 | 1.55 |

| | | | | | | | | | |
|-------|----------------------|----------|-------|------|------|------|-------|-------|------|
| SE677 | 2021-11-26T17:50:00Z | 9:50 AM | 57.23 | 10.2 | 4.54 | 5.22 | 14.67 | 16.88 | 1.55 |
| SE677 | 2021-11-26T18:00:00Z | 10:00 AM | 59.31 | 9.91 | 2.66 | 3.06 | 9.08 | 10.45 | 2.55 |
| SE677 | 2021-11-26T18:10:00Z | 10:10 AM | 59.95 | 9.18 | 3.95 | 4.55 | 9.78 | 11.25 | 1.43 |
| SE677 | 2021-11-26T18:20:00Z | 10:20 AM | 60.34 | 9.36 | 2.95 | 3.39 | 8.57 | 9.86 | 2.14 |
| SE677 | 2021-11-26T18:30:00Z | 10:30 AM | 60.93 | 9.27 | 3.81 | 4.38 | 12.7 | 14.61 | 2.39 |
| SE677 | 2021-11-26T18:40:00Z | 10:40 AM | 61.25 | 9.09 | 7.55 | 8.69 | 14.61 | 16.81 | 2.22 |
| SE677 | 2021-11-26T18:50:00Z | 10:50 AM | 61.6 | 9.06 | 5.52 | 6.35 | 11.31 | 13.02 | 2.42 |
| SE677 | 2021-11-26T19:00:00Z | 11:00 AM | 61.78 | 9.17 | 4.5 | 5.18 | 11.68 | 13.44 | 2.81 |
| SE677 | 2021-11-26T19:10:00Z | 11:10 AM | 61.77 | 9.34 | 5.34 | 6.15 | 15.81 | 18.19 | 3.19 |
| SE677 | 2021-11-26T19:20:00Z | 11:20 AM | 62.14 | 9.33 | 4.46 | 5.13 | 11.94 | 13.74 | 3.45 |
| SE677 | 2021-11-26T19:30:00Z | 11:30 AM | 62.6 | 9.41 | 4.13 | 4.75 | 15.55 | 17.89 | 3.99 |
| SE677 | 2021-11-26T19:40:00Z | 11:40 AM | 62.84 | 9.35 | 4.08 | 4.7 | 13.02 | 14.98 | 4.04 |
| SE677 | 2021-11-26T19:50:00Z | 11:50 AM | 64.05 | 8.81 | 6.71 | 7.72 | 20.32 | 23.38 | 3.7 |
| SE677 | 2021-11-26T20:00:00Z | 12:00 PM | 64.79 | 8.49 | 6.1 | 7.02 | 12.06 | 13.88 | 3.48 |

Attachment 2.

Weather Data from SCE's "Mesa Grande" Weather Station up the Briggs Road Canyon in Agua Dulce.

| SCE MESA GRANDE WEATHER STATION ON BRIGGS ROAD IN AGUA DULCE | | | | | | | | | | |
|---|----------------------|------------|-------|-------|------------|-------|-----------|-------|-----------|--|
| # The provisional data available here are intended for diverse user applications. | | | | | | | | | | |
| # For data review the information | | | | | | | | | | |
| # available from the NCEI (https://www.ncdc.noaa.gov/customer-support/certification-data) | | | | | | | | | | |
| # or consult a CCM (http://www.nicm.org). | | | | | | | | | | |
| # STATION: 027SE | | | | | | | | | | |
| # STATION NAME: SCE Mesa Grande Rd | | | | | | | | | | |
| # LATITUDE: 34.45793 | | | | | | | | | | |
| # LONGITUDE: -118.30035 | | | | | | | | | | |
| # ELEVATION [ft]: 2533 | | | | | | | | | | |
| # STATE: CA | | | | | | | | | | |
| Station ID | UTC time | Local Time | Temp | RH | wind speed | | wind gust | | dew point | |
| | | | ° F | % | knots | mph | knots | mph | ° F | |
| 027SE | 2021-11-24T20:00:00Z | 12:00 PM | 59.97 | 16.48 | 23.23 | 26.73 | 34.92 | 40.19 | 14.21 | |
| 027SE | 2021-11-24T20:10:00Z | 12:10 PM | 60.38 | 16.37 | 22.37 | 25.74 | 36.38 | 41.87 | 14.39 | |
| 027SE | 2021-11-24T20:20:00Z | 12:20 PM | 60.87 | 16.22 | 16.72 | 19.24 | 25.46 | 29.3 | 14.59 | |
| 027SE | 2021-11-24T20:30:00Z | 12:30 PM | 60.63 | 16.28 | 21.91 | 25.21 | 31.43 | 36.17 | 14.47 | |
| 027SE | 2021-11-24T20:40:00Z | 12:40 PM | 60.53 | 16.27 | 19.27 | 22.18 | 32 | 36.82 | 14.38 | |
| 027SE | 2021-11-24T20:50:00Z | 12:50 PM | 60.9 | 15.91 | 16.52 | 19.01 | 32.07 | 36.91 | 14.17 | |
| 027SE | 2021-11-24T21:00:00Z | 1:00 PM | 60.73 | 15.73 | 16.19 | 18.63 | 28.63 | 32.95 | 13.78 | |
| 027SE | 2021-11-24T21:10:00Z | 1:10 PM | 61.21 | 15.4 | 15.16 | 17.45 | 28.82 | 33.17 | 13.69 | |
| 027SE | 2021-11-24T21:20:00Z | 1:20 PM | 61.48 | 15.08 | 15.19 | 17.48 | 29.46 | 33.9 | 13.44 | |
| 027SE | 2021-11-24T21:30:00Z | 1:30 PM | 61.63 | 14.68 | 16.71 | 19.23 | 32.19 | 37.04 | 12.95 | |
| 027SE | 2021-11-24T21:40:00Z | 1:40 PM | 61.7 | 14.28 | 17.89 | 20.59 | 31.05 | 35.73 | 12.39 | |
| 027SE | 2021-11-24T21:50:00Z | 1:50 PM | 62.24 | 13.95 | 18.51 | 21.3 | 31.81 | 36.61 | 12.3 | |
| 027SE | 2021-11-24T22:00:00Z | 2:00 PM | 62.3 | 13.81 | 18.79 | 21.62 | 33.14 | 38.14 | 12.13 | |
| 027SE | 2021-11-24T22:10:00Z | 2:10 PM | 62.09 | 13.62 | 20.39 | 23.46 | 37.52 | 43.18 | 11.65 | |
| 027SE | 2021-11-24T22:20:00Z | 2:20 PM | 62.03 | 13.66 | 20.05 | 23.07 | 33.14 | 38.14 | 11.67 | |
| 027SE | 2021-11-24T22:30:00Z | 2:30 PM | 61.72 | 13.51 | 22.24 | 25.59 | 33.2 | 38.21 | 11.17 | |
| 027SE | 2021-11-24T22:40:00Z | 2:40 PM | 61.5 | 13.61 | 19.83 | 22.82 | 32.7 | 37.63 | 11.16 | |
| 027SE | 2021-11-24T22:50:00Z | 2:50 PM | 61.43 | 13.5 | 20.84 | 23.98 | 33.91 | 39.02 | 10.92 | |
| 027SE | 2021-11-24T23:00:00Z | 3:00 PM | 61.11 | 13.35 | 20.38 | 23.45 | 29.08 | 33.46 | 10.42 | |
| 027SE | 2021-11-24T23:10:00Z | 3:10 PM | 61.3 | 13.12 | 17.14 | 19.72 | 30.09 | 34.63 | 10.19 | |
| 027SE | 2021-11-24T23:20:00Z | 3:20 PM | 61.32 | 13.08 | 17.08 | 19.66 | 29.15 | 33.55 | 10.13 | |
| 027SE | 2021-11-24T23:30:00Z | 3:30 PM | 61.08 | 13.17 | 14.54 | 16.73 | 25.02 | 28.79 | 10.09 | |
| 027SE | 2021-11-24T23:40:00Z | 3:40 PM | 61.05 | 13.14 | 18.23 | 20.98 | 33.14 | 38.14 | 10.02 | |
| 027SE | 2021-11-24T23:50:00Z | 3:50 PM | 60.69 | 13.02 | 18.48 | 21.27 | 28.57 | 32.88 | 9.53 | |
| 027SE | 2021-11-25T00:00:00Z | 4:00 PM | 60.45 | 12.84 | 20.07 | 23.1 | 30.54 | 35.14 | 9.03 | |
| 027SE | 2021-11-25T00:10:00Z | 4:10 PM | 60.16 | 12.6 | 20.69 | 23.81 | 28 | 32.22 | 8.39 | |
| 027SE | 2021-11-25T00:20:00Z | 4:20 PM | 59.93 | 12.61 | 17.95 | 20.66 | 25.9 | 29.81 | 8.22 | |
| 027SE | 2021-11-25T00:30:00Z | 4:30 PM | 59.73 | 12.96 | 14.37 | 16.54 | 23.87 | 27.47 | 8.66 | |
| 027SE | 2021-11-25T00:40:00Z | 4:40 PM | 59.49 | 13.24 | 12.72 | 14.64 | 21.2 | 24.4 | 8.94 | |
| 027SE | 2021-11-25T00:50:00Z | 4:50 PM | 59.14 | 13.42 | 12.84 | 14.78 | 20.06 | 23.08 | 8.96 | |
| 027SE | 2021-11-25T01:00:00Z | 5:00 PM | 58.92 | 13.7 | 14.26 | 16.41 | 23.24 | 26.74 | 9.24 | |
| 027SE | 2021-11-25T01:10:00Z | 5:10 PM | 58.63 | 14.03 | 15.76 | 18.14 | 24.57 | 28.27 | 9.53 | |
| 027SE | 2021-11-25T01:20:00Z | 5:20 PM | 58.43 | 14.07 | 17.48 | 20.12 | 25.78 | 29.67 | 9.43 | |
| 027SE | 2021-11-25T01:30:00Z | 5:30 PM | 57.99 | 13.93 | 12.3 | 14.15 | 19.43 | 22.36 | 8.86 | |
| 027SE | 2021-11-25T01:40:00Z | 5:40 PM | 57.69 | 13.6 | 14.24 | 16.39 | 23.75 | 27.33 | 8.09 | |
| 027SE | 2021-11-25T01:50:00Z | 5:50 PM | 57.35 | 13.34 | 10.52 | 12.11 | 22.03 | 25.35 | 7.4 | |
| 027SE | 2021-11-25T02:00:00Z | 6:00 PM | 57.1 | 13.25 | 6.49 | 7.47 | 22.66 | 26.08 | 7.05 | |
| 027SE | 2021-11-25T02:10:00Z | 6:10 PM | 56.7 | 13.39 | 11.53 | 13.27 | 20.45 | 23.53 | 6.96 | |
| 027SE | 2021-11-25T02:20:00Z | 6:20 PM | 56.43 | 13.58 | 15.77 | 18.15 | 27.24 | 31.35 | 7.05 | |
| 027SE | 2021-11-25T02:30:00Z | 6:30 PM | 56.35 | 13.76 | 16.28 | 18.73 | 25.27 | 29.08 | 7.27 | |
| 027SE | 2021-11-25T02:40:00Z | 6:40 PM | 55.81 | 14.22 | 13.14 | 15.12 | 23.56 | 27.11 | 7.55 | |
| 027SE | 2021-11-25T02:50:00Z | 6:50 PM | 55.45 | 14.5 | 5.12 | 5.89 | 21.39 | 24.62 | 7.69 | |
| 027SE | 2021-11-25T03:00:00Z | 7:00 PM | 55.38 | 14.67 | 14.42 | 16.59 | 23.49 | 27.03 | 7.89 | |
| 027SE | 2021-11-25T03:10:00Z | 7:10 PM | 55.94 | 14.37 | 16.25 | 18.7 | 23.94 | 27.55 | 7.89 | |
| 027SE | 2021-11-25T03:20:00Z | 7:20 PM | 55.84 | 14.38 | 12.89 | 14.83 | 24.96 | 28.72 | 7.82 | |
| 027SE | 2021-11-25T03:30:00Z | 7:30 PM | 55.57 | 14.51 | 15.75 | 18.12 | 25.4 | 29.23 | 7.8 | |
| 027SE | 2021-11-25T03:40:00Z | 7:40 PM | 55.98 | 14.32 | 13.63 | 15.69 | 26.54 | 30.54 | 7.84 | |
| 027SE | 2021-11-25T03:50:00Z | 7:50 PM | 56.07 | 14.25 | 12.17 | 14 | 20.57 | 23.67 | 7.81 | |
| 027SE | 2021-11-25T04:00:00Z | 8:00 PM | 55.79 | 14.48 | 12.64 | 14.55 | 23.81 | 27.4 | 7.93 | |
| 027SE | 2021-11-25T04:10:00Z | 8:10 PM | 55.5 | 14.85 | 13.28 | 15.28 | 21.33 | 24.55 | 8.25 | |
| 027SE | 2021-11-25T04:20:00Z | 8:20 PM | 55.3 | 15.03 | 10.96 | 12.61 | 17.34 | 19.95 | 8.36 | |
| 027SE | 2021-11-25T04:30:00Z | 8:30 PM | 55.35 | 15.12 | 9.73 | 11.2 | 17.4 | 20.02 | 8.53 | |
| 027SE | 2021-11-25T04:40:00Z | 8:40 PM | 55.2 | 15.21 | 9.35 | 10.76 | 16.82 | 19.36 | 8.54 | |
| 027SE | 2021-11-25T04:50:00Z | 8:50 PM | 55.19 | 15.03 | 12.49 | 14.37 | 22.85 | 26.3 | 8.27 | |
| 027SE | 2021-11-25T05:00:00Z | 9:00 PM | 55.18 | 14.95 | 12.61 | 14.51 | 20 | 23.02 | 8.14 | |
| 027SE | 2021-11-25T05:10:00Z | 9:10 PM | 55.15 | 14.99 | 14.29 | 16.44 | 23.31 | 26.82 | 8.18 | |
| 027SE | 2021-11-25T05:20:00Z | 9:20 PM | 55.27 | 14.84 | 14.91 | 17.16 | 22.41 | 25.79 | 8.05 | |
| 027SE | 2021-11-25T05:30:00Z | 9:30 PM | 55.35 | 14.68 | 12.37 | 14.24 | 25.27 | 29.08 | 7.88 | |
| 027SE | 2021-11-25T05:40:00Z | 9:40 PM | 55.27 | 14.6 | 12.63 | 14.53 | 22.85 | 26.3 | 7.69 | |
| 027SE | 2021-11-25T05:50:00Z | 9:50 PM | 55.17 | 14.68 | 16.02 | 18.44 | 28.25 | 32.51 | 7.73 | |
| 027SE | 2021-11-25T06:00:00Z | 10:00 PM | 54.95 | 14.71 | 13.94 | 16.04 | 22.98 | 26.44 | 7.6 | |
| 027SE | 2021-11-25T06:10:00Z | 10:10 PM | 54.5 | 15.02 | 12.03 | 13.84 | 21.33 | 24.55 | 7.69 | |
| 027SE | 2021-11-25T06:20:00Z | 10:20 PM | 54.29 | 15.18 | 11.55 | 13.29 | 17.53 | 20.17 | 7.75 | |
| 027SE | 2021-11-25T06:30:00Z | 10:30 PM | 54.22 | 15.18 | 12.63 | 14.53 | 23.37 | 26.89 | 7.7 | |
| 027SE | 2021-11-25T06:40:00Z | 10:40 PM | 54.53 | 14.9 | 14.21 | 16.35 | 29.65 | 34.12 | 7.54 | |
| 027SE | 2021-11-25T06:50:00Z | 10:50 PM | 54.66 | 14.82 | 14.82 | 17.05 | 27.56 | 31.72 | 7.53 | |
| 027SE | 2021-11-25T07:00:00Z | 11:00 PM | 54.41 | 15.07 | 16.6 | 19.1 | 25.71 | 29.01 | 7.60 | |

| | | | | | | | | | |
|-------|----------------------|----------|-------|-------|-------|-------|-------|-------|------|
| 0275E | 2021-11-25T06:50:00Z | 10:50 PM | 54.66 | 14.82 | 14.82 | 17.05 | 27.56 | 31.72 | 7.53 |
| 0275E | 2021-11-25T07:00:00Z | 11:00 PM | 54.41 | 15.07 | 16.6 | 19.1 | 25.21 | 29.01 | 7.69 |
| 0275E | 2021-11-25T07:10:00Z | 11:10 PM | 54.14 | 15.05 | 16.47 | 18.95 | 26.29 | 30.25 | 7.44 |
| 0275E | 2021-11-25T07:20:00Z | 11:20 PM | 54.2 | 14.87 | 14.41 | 16.58 | 26.29 | 30.25 | 7.23 |
| 0275E | 2021-11-25T07:30:00Z | 11:30 PM | 54.72 | 14.39 | 16.43 | 18.91 | 27.11 | 31.2 | 6.93 |
| 0275E | 2021-11-25T07:40:00Z | 11:40 PM | 55.02 | 14.11 | 16.71 | 19.23 | 28.44 | 32.73 | 6.75 |
| 0275E | 2021-11-25T07:50:00Z | 11:50 PM | 54.74 | 14.19 | 15.02 | 17.28 | 23.62 | 27.18 | 6.65 |
| 0275E | 2021-11-25T08:00:00Z | 12:00 AM | 54.23 | 14.34 | 15.95 | 18.35 | 28.07 | 32.3 | 6.46 |
| 0275E | 2021-11-25T08:10:00Z | 12:10 AM | 53.88 | 14.42 | 18.18 | 20.92 | 28.07 | 32.3 | 6.3 |
| 0275E | 2021-11-25T08:20:00Z | 12:20 AM | 53.71 | 14.45 | 19.04 | 21.91 | 27.05 | 31.13 | 6.21 |
| 0275E | 2021-11-25T08:30:00Z | 12:30 AM | 53.65 | 14.42 | 18.87 | 21.72 | 31.11 | 35.8 | 6.12 |
| 0275E | 2021-11-25T08:40:00Z | 12:40 AM | 53.71 | 14.41 | 23.22 | 26.72 | 32.57 | 37.48 | 6.15 |
| 0275E | 2021-11-25T08:50:00Z | 12:50 AM | 53.68 | 14.41 | 18.34 | 21.11 | 30.99 | 35.66 | 6.13 |
| 0275E | 2021-11-25T09:00:00Z | 1:00 AM | 53.64 | 14.35 | 17.01 | 19.57 | 28.38 | 32.66 | 6 |
| 0275E | 2021-11-25T09:10:00Z | 1:10 AM | 53.74 | 14.14 | 17.81 | 20.5 | 27.05 | 31.13 | 5.76 |
| 0275E | 2021-11-25T09:20:00Z | 1:20 AM | 53.65 | 14.11 | 19 | 21.86 | 30.35 | 34.93 | 5.65 |
| 0275E | 2021-11-25T09:30:00Z | 1:30 AM | 53.69 | 13.95 | 16.49 | 18.98 | 29.08 | 33.46 | 5.43 |
| 0275E | 2021-11-25T09:40:00Z | 1:40 AM | 53.53 | 13.98 | 16.39 | 18.86 | 31.05 | 35.73 | 5.35 |
| 0275E | 2021-11-25T09:50:00Z | 1:50 AM | 53.19 | 14.36 | 18.6 | 21.4 | 30.67 | 35.29 | 5.66 |
| 0275E | 2021-11-25T10:00:00Z | 2:00 AM | 52.82 | 14.57 | 19.33 | 22.24 | 31.55 | 36.31 | 5.67 |
| 0275E | 2021-11-25T10:10:00Z | 2:10 AM | 52.53 | 14.57 | 16.2 | 18.64 | 27.42 | 31.55 | 5.44 |
| 0275E | 2021-11-25T10:20:00Z | 2:20 AM | 52.82 | 14.19 | 17.21 | 19.8 | 30.92 | 35.58 | 5.1 |
| 0275E | 2021-11-25T10:30:00Z | 2:30 AM | 52.85 | 14.1 | 18.8 | 21.63 | 31.62 | 36.39 | 4.99 |
| 0275E | 2021-11-25T10:40:00Z | 2:40 AM | 52.63 | 14.27 | 20.93 | 24.09 | 31.93 | 36.74 | 5.07 |
| 0275E | 2021-11-25T10:50:00Z | 2:50 AM | 52.34 | 14.38 | 19.68 | 22.65 | 33.84 | 38.94 | 5 |
| 0275E | 2021-11-25T11:00:00Z | 3:00 AM | 52.32 | 14.26 | 21.82 | 25.11 | 36.64 | 42.16 | 4.8 |
| 0275E | 2021-11-25T11:10:00Z | 3:10 AM | 52.29 | 14.24 | 17.32 | 19.93 | 27.81 | 32 | 4.75 |
| 0275E | 2021-11-25T11:20:00Z | 3:20 AM | 52.46 | 13.94 | 18.32 | 21.08 | 30.73 | 35.36 | 4.43 |
| 0275E | 2021-11-25T11:30:00Z | 3:30 AM | 52.5 | 13.78 | 18.39 | 21.16 | 34.48 | 39.68 | 4.21 |
| 0275E | 2021-11-25T11:40:00Z | 3:40 AM | 52.11 | 14.09 | 16.43 | 18.91 | 27.94 | 32.15 | 4.38 |
| 0275E | 2021-11-25T11:50:00Z | 3:50 AM | 51.86 | 14.21 | 16.04 | 18.46 | 26.98 | 31.05 | 4.36 |
| 0275E | 2021-11-25T12:00:00Z | 4:00 AM | 52.09 | 14.06 | 19.52 | 22.46 | 30.16 | 34.71 | 4.31 |
| 0275E | 2021-11-25T12:10:00Z | 4:10 AM | 51.78 | 14.28 | 18.83 | 21.67 | 31.81 | 36.61 | 4.4 |
| 0275E | 2021-11-25T12:20:00Z | 4:20 AM | 51.69 | 14.29 | 18.58 | 21.38 | 33.14 | 38.14 | 4.34 |
| 0275E | 2021-11-25T12:30:00Z | 4:30 AM | 51.82 | 14.15 | 19.66 | 22.62 | 33.08 | 38.07 | 4.23 |
| 0275E | 2021-11-25T12:40:00Z | 4:40 AM | 51.8 | 14.08 | 17.28 | 19.89 | 27.69 | 31.87 | 4.11 |
| 0275E | 2021-11-25T12:50:00Z | 4:50 AM | 51.55 | 14.12 | 16.61 | 19.11 | 34.35 | 39.53 | 3.97 |
| 0275E | 2021-11-25T13:00:00Z | 5:00 AM | 51.54 | 14.09 | 21.69 | 24.96 | 36.19 | 41.65 | 3.92 |
| 0275E | 2021-11-25T13:10:00Z | 5:10 AM | 51.53 | 14.07 | 19.96 | 22.97 | 37.33 | 42.96 | 3.88 |
| 0275E | 2021-11-25T13:20:00Z | 5:20 AM | 51.37 | 14.15 | 17.09 | 19.67 | 29.46 | 33.9 | 3.87 |
| 0275E | 2021-11-25T13:30:00Z | 5:30 AM | 51.14 | 14.31 | 16.79 | 19.32 | 29.27 | 33.68 | 3.93 |
| 0275E | 2021-11-25T13:40:00Z | 5:40 AM | 51.07 | 14.25 | 17.67 | 20.33 | 26.23 | 30.18 | 3.78 |
| 0275E | 2021-11-25T13:50:00Z | 5:50 AM | 51.22 | 14.03 | 16.28 | 18.73 | 26.16 | 30.1 | 3.57 |
| 0275E | 2021-11-25T14:00:00Z | 6:00 AM | 51.25 | 13.89 | 16.22 | 18.67 | 28.51 | 32.81 | 3.38 |
| 0275E | 2021-11-25T14:10:00Z | 6:10 AM | 51.13 | 13.96 | 15.56 | 17.91 | 24.19 | 27.84 | 3.39 |
| 0275E | 2021-11-25T14:20:00Z | 6:20 AM | 51.14 | 14.01 | 16.35 | 18.82 | 29.27 | 33.68 | 3.47 |
| 0275E | 2021-11-25T14:30:00Z | 6:30 AM | 51.08 | 14 | 15.86 | 18.25 | 31.49 | 36.24 | 3.41 |
| 0275E | 2021-11-25T14:40:00Z | 6:40 AM | 51.34 | 13.8 | 20.85 | 23.99 | 33.33 | 38.36 | 3.31 |
| 0275E | 2021-11-25T14:50:00Z | 6:50 AM | 51.46 | 13.56 | 19.1 | 21.98 | 34.35 | 39.53 | 3.03 |
| 0275E | 2021-11-25T15:00:00Z | 7:00 AM | 51.65 | 13.28 | 16.29 | 18.75 | 28.76 | 33.1 | 2.74 |
| 0275E | 2021-11-25T15:10:00Z | 7:10 AM | 51.69 | 13.19 | 14.36 | 16.53 | 30.22 | 34.78 | 2.63 |
| 0275E | 2021-11-25T15:20:00Z | 7:20 AM | 52.06 | 12.89 | 15.22 | 17.51 | 24.06 | 27.69 | 2.43 |
| 0275E | 2021-11-25T15:30:00Z | 7:30 AM | 52.32 | 12.86 | 16.18 | 18.62 | 25.59 | 29.45 | 2.59 |
| 0275E | 2021-11-25T15:40:00Z | 7:40 AM | 52.38 | 12.94 | 21.88 | 25.18 | 35.05 | 40.33 | 2.77 |
| 0275E | 2021-11-25T15:50:00Z | 7:50 AM | 52.32 | 13.16 | 20.31 | 23.37 | 34.03 | 39.16 | 3.08 |
| 0275E | 2021-11-25T16:00:00Z | 8:00 AM | 52.48 | 13.12 | 23.46 | 27 | 39.75 | 45.74 | 3.15 |
| 0275E | 2021-11-25T16:10:00Z | 8:10 AM | 52.58 | 13.1 | 21.18 | 24.37 | 35.62 | 40.99 | 3.19 |
| 0275E | 2021-11-25T16:20:00Z | 8:20 AM | 52.85 | 12.91 | 21.38 | 24.6 | 32.07 | 36.91 | 3.1 |
| 0275E | 2021-11-25T16:30:00Z | 8:30 AM | 53.22 | 12.74 | 18.26 | 21.01 | 34.1 | 39.24 | 3.11 |
| 0275E | 2021-11-25T16:40:00Z | 8:40 AM | 53.43 | 12.7 | 18.83 | 21.67 | 29.21 | 33.61 | 3.21 |
| 0275E | 2021-11-25T16:50:00Z | 8:50 AM | 53.76 | 12.69 | 17.43 | 20.06 | 31.24 | 35.95 | 3.45 |
| 0275E | 2021-11-25T17:00:00Z | 9:00 AM | 53.93 | 12.82 | 21.22 | 24.42 | 35.37 | 40.7 | 3.81 |
| 0275E | 2021-11-25T17:10:00Z | 9:10 AM | 54.26 | 12.68 | 18.79 | 21.62 | 31.43 | 36.17 | 3.83 |
| 0275E | 2021-11-25T17:20:00Z | 9:20 AM | 54.73 | 12.5 | 18.74 | 21.57 | 25.71 | 29.59 | 3.9 |
| 0275E | 2021-11-25T17:30:00Z | 9:30 AM | 55.18 | 12.37 | 17.92 | 20.62 | 33.39 | 38.42 | 4.04 |
| 0275E | 2021-11-25T17:40:00Z | 9:40 AM | 55.44 | 12.35 | 17.66 | 20.32 | 35.31 | 40.63 | 4.21 |
| 0275E | 2021-11-25T17:50:00Z | 9:50 AM | 55.55 | 12.38 | 16.01 | 18.42 | 31.24 | 35.95 | 4.35 |
| 0275E | 2021-11-25T18:00:00Z | 10:00 AM | 55.88 | 12.15 | 1.9 | 2.19 | 23.56 | 27.11 | 4.21 |
| 0275E | 2021-11-25T18:10:00Z | 10:10 AM | 56.51 | 11.52 | 0 | 0 | 0 | 0 | 3.56 |
| 0275E | 2021-11-25T18:20:00Z | 10:20 AM | 56.63 | 11.48 | 0 | 0 | 0 | 0 | 3.58 |
| 0275E | 2021-11-25T18:30:00Z | 10:30 AM | 56.81 | 11.48 | 0 | 0 | 0 | 0 | 3.73 |
| 0275E | 2021-11-25T18:40:00Z | 10:40 AM | 56.81 | 11.11 | 6.76 | 7.78 | 38.73 | 44.57 | 3.03 |
| 0275E | 2021-11-25T18:50:00Z | 10:50 AM | 56.84 | 11.47 | 20.7 | 23.82 | 32.95 | 37.92 | 3.73 |
| 0275E | 2021-11-25T19:00:00Z | 11:00 AM | 57.29 | 11.67 | 19.77 | 22.75 | 33.66 | 38.74 | 4.46 |
| 0275E | 2021-11-25T19:10:00Z | 11:10 AM | 57.71 | 11.38 | 17.31 | 19.92 | 29.78 | 34.27 | 4.25 |
| 0275E | 2021-11-25T19:20:00Z | 11:20 AM | 57.7 | 10.99 | 19.69 | 22.66 | 31.43 | 36.17 | 3.49 |
| 0275E | 2021-11-25T19:30:00Z | 11:30 AM | 57.97 | 10.71 | 21.29 | 24.5 | 36.7 | 42.23 | 3.16 |
| 0275E | 2021-11-25T19:40:00Z | 11:40 AM | 58.2 | 10.47 | 19.35 | 22.27 | 37.52 | 43.18 | 2.85 |
| 0275E | 2021-11-25T19:50:00Z | 11:50 AM | 58.65 | 10.38 | 19.75 | 22.73 | 40.63 | 46.76 | 3.02 |
| 0275E | 2021-11-25T20:00:00Z | 12:00 PM | 58.81 | 10.24 | 20.48 | 23.57 | 36.19 | 41.65 | 2.86 |
| 0275E | 2021-11-25T20:10:00Z | 12:10 PM | 58.8 | 9.81 | 18.43 | 21.21 | 33.72 | 38.8 | 1.94 |
| 0275E | 2021-11-25T20:20:00Z | 12:20 PM | 59.34 | 9.26 | 19.88 | 22.88 | 34.54 | 39.75 | 1.14 |
| 0275E | 2021-11-25T20:30:00Z | 12:30 PM | 59.72 | 9.03 | 17.61 | 20.27 | 27.56 | 31.72 | 0.91 |
| 0275E | 2021-11-25T20:40:00Z | 12:40 PM | 59.74 | 9.08 | 16.48 | 18.96 | 29.84 | 34.34 | 1.04 |

| | | | | | | | | | |
|-------|----------------------|----------|-------|-------|-------|-------|-------|-------|-------|
| 0275E | 2021-11-25T20:40:00Z | 12:40 PM | 59.74 | 9.08 | 16.48 | 18.96 | 29.84 | 34.34 | 1.04 |
| 0275E | 2021-11-25T20:50:00Z | 12:50 PM | 60.22 | 8.67 | 18.6 | 21.4 | 37.84 | 43.55 | 0.44 |
| 0275E | 2021-11-25T21:00:00Z | 1:00 PM | 59.98 | 8.76 | 19.84 | 22.83 | 34.6 | 39.82 | 0.47 |
| 0275E | 2021-11-25T21:10:00Z | 1:10 PM | 60.15 | 8.98 | 17.54 | 20.18 | 30.03 | 34.56 | 1.12 |
| 0275E | 2021-11-25T21:20:00Z | 1:20 PM | 59.8 | 9.11 | 20.56 | 23.66 | 32.32 | 37.19 | 1.15 |
| 0275E | 2021-11-25T21:30:00Z | 1:30 PM | 60.37 | 9.1 | 18.34 | 21.11 | 32.95 | 37.92 | 1.57 |
| 0275E | 2021-11-25T21:40:00Z | 1:40 PM | 60.12 | 8.98 | 20.67 | 23.79 | 38.16 | 43.91 | 1.1 |
| 0275E | 2021-11-25T21:50:00Z | 1:50 PM | 60.61 | 8.77 | 19.53 | 22.47 | 30.73 | 35.36 | 0.97 |
| 0275E | 2021-11-25T22:00:00Z | 2:00 PM | 60.57 | 8.78 | 21.19 | 24.39 | 34.35 | 39.53 | 0.97 |
| 0275E | 2021-11-25T22:10:00Z | 2:10 PM | 60.67 | 8.73 | 19.6 | 22.56 | 33.78 | 38.87 | 0.92 |
| 0275E | 2021-11-25T22:20:00Z | 2:20 PM | 60.91 | 8.7 | 17.18 | 19.77 | 29.97 | 34.49 | 1.04 |
| 0275E | 2021-11-25T22:30:00Z | 2:30 PM | 60.87 | 8.59 | 19.25 | 22.15 | 34.03 | 39.16 | 0.74 |
| 0275E | 2021-11-25T22:40:00Z | 2:40 PM | 60.98 | 8.52 | 22.62 | 26.03 | 36.25 | 41.72 | 0.65 |
| 0275E | 2021-11-25T22:50:00Z | 2:50 PM | 60.83 | 8.52 | 23.76 | 27.34 | 38.35 | 44.13 | 0.54 |
| 0275E | 2021-11-25T23:00:00Z | 3:00 PM | 61.14 | 8.44 | 20.42 | 23.5 | 33.08 | 38.07 | 0.58 |
| 0275E | 2021-11-25T23:10:00Z | 3:10 PM | 61.05 | 8.33 | 23.64 | 27.2 | 36.83 | 42.38 | 0.23 |
| 0275E | 2021-11-25T23:20:00Z | 3:20 PM | 61.1 | 8.23 | 23.14 | 26.63 | 35.37 | 40.7 | 0.02 |
| 0275E | 2021-11-25T23:30:00Z | 3:30 PM | 61.29 | 8.17 | 19.81 | 22.8 | 38.54 | 44.35 | 0.01 |
| 0275E | 2021-11-25T23:40:00Z | 3:40 PM | 61.27 | 8.13 | 18.72 | 21.54 | 28.13 | 32.37 | -0.11 |
| 0275E | 2021-11-25T23:50:00Z | 3:50 PM | 61.22 | 8.05 | 19.12 | 22 | 35.75 | 41.14 | -0.35 |
| 0275E | 2021-11-26T00:00:00Z | 4:00 PM | 61.26 | 7.98 | 15.83 | 18.22 | 25.52 | 29.37 | -0.5 |
| 0275E | 2021-11-26T00:10:00Z | 4:10 PM | 61.27 | 7.83 | 18.18 | 20.92 | 28.82 | 33.17 | -0.89 |
| 0275E | 2021-11-26T00:20:00Z | 4:20 PM | 61.16 | 7.78 | 17.02 | 19.59 | 31.11 | 35.8 | -1.1 |
| 0275E | 2021-11-26T00:30:00Z | 4:30 PM | 60.9 | 7.89 | 16.92 | 19.47 | 24.89 | 28.64 | -1.01 |
| 0275E | 2021-11-26T00:40:00Z | 4:40 PM | 60.32 | 8.14 | 17.79 | 20.47 | 29.02 | 33.4 | -0.8 |
| 0275E | 2021-11-26T00:50:00Z | 4:50 PM | 59.89 | 8.32 | 15.79 | 18.17 | 23.31 | 26.82 | -0.67 |
| 0275E | 2021-11-26T01:00:00Z | 5:00 PM | 59.61 | 8.44 | 13.96 | 16.06 | 21.27 | 24.48 | -0.59 |
| 0275E | 2021-11-26T01:10:00Z | 5:10 PM | 59.43 | 8.51 | 13.94 | 16.04 | 26.35 | 30.32 | -0.55 |
| 0275E | 2021-11-26T01:20:00Z | 5:20 PM | 59.23 | 8.52 | 12.63 | 14.53 | 21.59 | 24.85 | -0.68 |
| 0275E | 2021-11-26T01:30:00Z | 5:30 PM | 59.29 | 8.45 | 13.88 | 15.97 | 20.89 | 24.04 | -0.81 |
| 0275E | 2021-11-26T01:40:00Z | 5:40 PM | 59.34 | 8.34 | 14.08 | 16.2 | 21.84 | 25.13 | -1.04 |
| 0275E | 2021-11-26T01:50:00Z | 5:50 PM | 59.41 | 8.24 | 13.62 | 15.67 | 22.41 | 25.79 | -1.24 |
| 0275E | 2021-11-26T02:00:00Z | 6:00 PM | 59.2 | 8.21 | 10.61 | 12.21 | 17.78 | 20.46 | -1.47 |
| 0275E | 2021-11-26T02:10:00Z | 6:10 PM | 59.28 | 8.14 | 11.23 | 12.92 | 19.49 | 22.43 | -1.59 |
| 0275E | 2021-11-26T02:20:00Z | 6:20 PM | 59.69 | 7.95 | 11.96 | 13.76 | 19.24 | 22.14 | -1.77 |
| 0275E | 2021-11-26T02:30:00Z | 6:30 PM | 59.77 | 7.88 | 12.59 | 14.49 | 26.1 | 30.04 | -1.89 |
| 0275E | 2021-11-26T02:40:00Z | 6:40 PM | 59.96 | 7.88 | 12.04 | 13.86 | 21.33 | 24.55 | -1.74 |
| 0275E | 2021-11-26T02:50:00Z | 6:50 PM | 59.93 | 7.93 | 12.67 | 14.58 | 20.76 | 23.89 | -1.64 |
| 0275E | 2021-11-26T03:00:00Z | 7:00 PM | 59.96 | 7.96 | 12.37 | 14.24 | 18.8 | 21.63 | -1.54 |
| 0275E | 2021-11-26T03:10:00Z | 7:10 PM | 59.79 | 8.05 | 12.79 | 14.72 | 21.65 | 24.91 | -1.43 |
| 0275E | 2021-11-26T03:20:00Z | 7:20 PM | 59.77 | 8.17 | 15.69 | 18.06 | 23.94 | 27.55 | -1.14 |
| 0275E | 2021-11-26T03:30:00Z | 7:30 PM | 59.92 | 8.34 | 18.53 | 21.32 | 30.61 | 35.23 | -0.6 |
| 0275E | 2021-11-26T03:40:00Z | 7:40 PM | 59.75 | 8.46 | 17.01 | 19.57 | 25.21 | 29.01 | -0.43 |
| 0275E | 2021-11-26T03:50:00Z | 7:50 PM | 59.59 | 8.5 | 15.2 | 17.49 | 26.03 | 29.95 | -0.46 |
| 0275E | 2021-11-26T04:00:00Z | 8:00 PM | 59.6 | 8.46 | 14.43 | 16.61 | 23.62 | 27.18 | -0.55 |
| 0275E | 2021-11-26T04:10:00Z | 8:10 PM | 59.71 | 8.57 | 13.1 | 15.08 | 21.27 | 24.48 | -0.19 |
| 0275E | 2021-11-26T04:20:00Z | 8:20 PM | 59.68 | 8.63 | 13.14 | 15.12 | 26.67 | 30.69 | -0.07 |
| 0275E | 2021-11-26T04:30:00Z | 8:30 PM | 60.06 | 8.64 | 15.99 | 18.4 | 29.46 | 33.9 | 0.24 |
| 0275E | 2021-11-26T04:40:00Z | 8:40 PM | 59.91 | 8.81 | 15.84 | 18.23 | 23.75 | 27.33 | 0.53 |
| 0275E | 2021-11-26T04:50:00Z | 8:50 PM | 59.77 | 8.9 | 16.14 | 18.57 | 27.94 | 32.15 | 0.64 |
| 0275E | 2021-11-26T05:00:00Z | 9:00 PM | 59.7 | 8.85 | 13.22 | 15.21 | 20.83 | 23.97 | 0.47 |
| 0275E | 2021-11-26T05:10:00Z | 9:10 PM | 59.68 | 8.83 | 13.55 | 15.59 | 21.33 | 24.55 | 0.41 |
| 0275E | 2021-11-26T05:20:00Z | 9:20 PM | 59.49 | 8.93 | 11.51 | 13.25 | 19.87 | 22.87 | 0.5 |
| 0275E | 2021-11-26T05:30:00Z | 9:30 PM | 59.86 | 8.8 | 11.16 | 12.84 | 19.87 | 22.87 | 0.47 |
| 0275E | 2021-11-26T05:40:00Z | 9:40 PM | 59.59 | 8.93 | 9.76 | 11.23 | 17.97 | 20.68 | 0.57 |
| 0275E | 2021-11-26T05:50:00Z | 9:50 PM | 59.33 | 8.92 | 10.52 | 12.11 | 16.19 | 18.63 | 0.35 |
| 0275E | 2021-11-26T06:00:00Z | 10:00 PM | 59.52 | 8.8 | 11.09 | 12.76 | 16.82 | 19.36 | 0.21 |
| 0275E | 2021-11-26T06:10:00Z | 10:10 PM | 59.66 | 8.72 | 12.85 | 14.79 | 19.3 | 22.21 | 0.13 |
| 0275E | 2021-11-26T06:20:00Z | 10:20 PM | 59.79 | 8.73 | 12.9 | 14.85 | 21.08 | 24.26 | 0.25 |
| 0275E | 2021-11-26T06:30:00Z | 10:30 PM | 59.71 | 8.87 | 13.92 | 16.02 | 23.62 | 27.18 | 0.52 |
| 0275E | 2021-11-26T06:40:00Z | 10:40 PM | 58.95 | 9.2 | 12.07 | 13.89 | 19.05 | 21.92 | 0.71 |
| 0275E | 2021-11-26T06:50:00Z | 10:50 PM | 58.47 | 9.44 | 13.82 | 15.9 | 29.08 | 33.46 | 0.88 |
| 0275E | 2021-11-26T07:00:00Z | 11:00 PM | 57.79 | 9.71 | 14.36 | 16.53 | 25.27 | 29.08 | 0.94 |
| 0275E | 2021-11-26T07:10:00Z | 11:10 PM | 57.27 | 9.85 | 13.45 | 15.48 | 22.03 | 25.35 | 0.84 |
| 0275E | 2021-11-26T07:20:00Z | 11:20 PM | 56.58 | 10.08 | 13.67 | 15.73 | 23.94 | 27.55 | 0.79 |
| 0275E | 2021-11-26T07:30:00Z | 11:30 PM | 55.81 | 10.37 | 13.65 | 15.71 | 19.87 | 22.87 | 0.79 |
| 0275E | 2021-11-26T07:40:00Z | 11:40 PM | 55.85 | 10.39 | 14.03 | 16.15 | 23.68 | 27.25 | 0.86 |
| 0275E | 2021-11-26T07:50:00Z | 11:50 PM | 55.92 | 10.39 | 13.67 | 15.73 | 21.59 | 24.85 | 0.92 |
| 0275E | 2021-11-26T08:00:00Z | 12:00 AM | 55.55 | 10.54 | 13.47 | 15.5 | 22.66 | 26.08 | 0.93 |
| 0275E | 2021-11-26T08:10:00Z | 12:10 AM | 55.26 | 10.67 | 13.1 | 15.08 | 21.27 | 24.48 | 0.96 |
| 0275E | 2021-11-26T08:20:00Z | 12:20 AM | 55.45 | 10.64 | 11 | 12.66 | 20.32 | 23.38 | 1.05 |
| 0275E | 2021-11-26T08:30:00Z | 12:30 AM | 54.52 | 10.93 | 12.5 | 14.38 | 19.81 | 22.8 | 0.89 |
| 0275E | 2021-11-26T08:40:00Z | 12:40 AM | 54.15 | 11.03 | 12.92 | 14.87 | 18.92 | 21.77 | 0.79 |
| 0275E | 2021-11-26T08:50:00Z | 12:50 AM | 54.67 | 10.87 | 13.76 | 15.83 | 24.13 | 27.77 | 0.89 |
| 0275E | 2021-11-26T09:00:00Z | 1:00 AM | 54.7 | 10.84 | 14.32 | 16.48 | 20.76 | 23.89 | 0.86 |
| 0275E | 2021-11-26T09:10:00Z | 1:10 AM | 53.54 | 11.21 | 12 | 13.81 | 18.8 | 21.63 | 0.65 |
| 0275E | 2021-11-26T09:20:00Z | 1:20 AM | 52.38 | 11.62 | 11.5 | 13.23 | 20.57 | 23.67 | 0.5 |
| 0275E | 2021-11-26T09:30:00Z | 1:30 AM | 52.82 | 11.48 | 11.23 | 12.92 | 20.13 | 23.17 | 0.59 |
| 0275E | 2021-11-26T09:40:00Z | 1:40 AM | 52.53 | 11.6 | 8.83 | 10.16 | 13.84 | 15.93 | 0.58 |
| 0275E | 2021-11-26T09:50:00Z | 1:50 AM | 52.32 | 11.7 | 8.3 | 9.55 | 12.83 | 14.76 | 0.59 |
| 0275E | 2021-11-26T10:00:00Z | 2:00 AM | 52.89 | 11.45 | 11.44 | 13.16 | 15.11 | 17.39 | 0.59 |
| 0275E | 2021-11-26T10:10:00Z | 2:10 AM | 53.03 | 11.44 | 12.56 | 14.45 | 17.4 | 20.02 | 0.68 |
| 0275E | 2021-11-26T10:20:00Z | 2:20 AM | 53.11 | 11.35 | 15.86 | 18.25 | 21.2 | 24.4 | 0.58 |
| 0275E | 2021-11-26T10:30:00Z | 2:30 AM | 53.52 | 11.27 | 15.88 | 18.27 | 22.66 | 26.08 | 0.75 |

| | | | | | | | | | | |
|-------|----------------------|----------|--|-------|-------|-------|-------|-------|-------|-------|
| 027SE | 2021-11-26T10:30:00Z | 2:30 AM | | 53.52 | 11.27 | 15.88 | 18.27 | 22.66 | 26.08 | 0.75 |
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| 027SE | 2021-11-26T11:30:00Z | 3:30 AM | | 55.91 | 10.82 | 19.68 | 22.65 | 29.59 | 34.05 | 1.76 |
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| 027SE | 2021-11-26T11:50:00Z | 3:50 AM | | 55.06 | 11.19 | 18.82 | 21.66 | 26.67 | 30.69 | 1.81 |
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| 027SE | 2021-11-26T12:10:00Z | 4:10 AM | | 55.29 | 11.26 | 18.28 | 21.04 | 25.27 | 29.08 | 2.12 |
| 027SE | 2021-11-26T12:20:00Z | 4:20 AM | | 54.68 | 11.53 | 12.41 | 14.28 | 17.78 | 20.46 | 2.14 |
| 027SE | 2021-11-26T12:30:00Z | 4:30 AM | | 54.69 | 11.61 | 11.92 | 13.72 | 18.22 | 20.97 | 2.3 |
| 027SE | 2021-11-26T12:40:00Z | 4:40 AM | | 55.24 | 11.49 | 14.5 | 16.69 | 22.1 | 25.43 | 2.51 |
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| 027SE | 2021-11-26T13:00:00Z | 5:00 AM | | 55.31 | 11.49 | 16.01 | 18.42 | 22.16 | 25.5 | 2.56 |
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| 027SE | 2021-11-26T13:20:00Z | 5:20 AM | | 55 | 11.4 | 11.55 | 13.29 | 16 | 18.41 | 2.15 |
| 027SE | 2021-11-26T13:30:00Z | 5:30 AM | | 55.76 | 10.99 | 12.11 | 13.94 | 17.84 | 20.53 | 1.98 |
| 027SE | 2021-11-26T13:40:00Z | 5:40 AM | | 55.63 | 10.99 | 12.31 | 14.17 | 17.14 | 19.72 | 1.87 |
| 027SE | 2021-11-26T13:50:00Z | 5:50 AM | | 55.63 | 10.89 | 15.69 | 18.06 | 20.2 | 23.25 | 1.68 |
| 027SE | 2021-11-26T14:00:00Z | 6:00 AM | | 55.47 | 10.83 | 14.25 | 16.4 | 19.05 | 21.92 | 1.44 |
| 027SE | 2021-11-26T14:10:00Z | 6:10 AM | | 55.43 | 10.58 | 15.01 | 17.27 | 18.8 | 21.63 | 0.92 |
| 027SE | 2021-11-26T14:20:00Z | 6:20 AM | | 55.54 | 10.19 | 19.01 | 21.88 | 25.52 | 29.37 | 0.21 |
| 027SE | 2021-11-26T14:30:00Z | 6:30 AM | | 55.76 | 9.99 | 20.93 | 24.09 | 28.07 | 32.3 | -0.03 |
| 027SE | 2021-11-26T14:40:00Z | 6:40 AM | | 55.22 | 10.12 | 17.45 | 20.08 | 22.98 | 26.44 | -0.18 |
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| 027SE | 2021-11-26T15:00:00Z | 7:00 AM | | 55.51 | 9.78 | 13.59 | 15.64 | 16.26 | 18.71 | -0.67 |
| 027SE | 2021-11-26T15:10:00Z | 7:10 AM | | 55.83 | 9.6 | 12.94 | 14.89 | 16.38 | 18.85 | -0.81 |
| 027SE | 2021-11-26T15:20:00Z | 7:20 AM | | 56.78 | 9.19 | 11.06 | 12.73 | 15.81 | 18.19 | -0.98 |
| 027SE | 2021-11-26T15:30:00Z | 7:30 AM | | 57.69 | 8.91 | 7.72 | 8.88 | 14.42 | 16.59 | -0.93 |
| 027SE | 2021-11-26T15:40:00Z | 7:40 AM | | 58.49 | 8.7 | 4.72 | 5.43 | 8.95 | 10.3 | -0.81 |
| 027SE | 2021-11-26T15:50:00Z | 7:50 AM | | 59.69 | 8.36 | 7.96 | 9.16 | 15.17 | 17.46 | -0.73 |
| 027SE | 2021-11-26T16:00:00Z | 8:00 AM | | 60.64 | 8.13 | 5.45 | 6.27 | 12.7 | 14.61 | -0.58 |
| 027SE | 2021-11-26T16:10:00Z | 8:10 AM | | 60.99 | 8.13 | 3.94 | 4.53 | 10.1 | 11.62 | -0.32 |
| 027SE | 2021-11-26T16:20:00Z | 8:20 AM | | 60.94 | 8.27 | 4.69 | 5.4 | 13.9 | 16 | 0 |
| 027SE | 2021-11-26T16:30:00Z | 8:30 AM | | 59.97 | 8.55 | 0 | 0 | 0 | 0 | -0.04 |
| 027SE | 2021-11-26T16:40:00Z | 8:40 AM | | 59.4 | 8.77 | 0 | 0 | 0 | 0 | 0.05 |
| 027SE | 2021-11-26T16:50:00Z | 8:50 AM | | 58.81 | 9.08 | 0 | 0 | 0 | 0 | 0.32 |
| 027SE | 2021-11-26T17:00:00Z | 9:00 AM | | 58.09 | 9.42 | 0 | 0 | 0 | 0 | 0.54 |
| 027SE | 2021-11-26T17:10:00Z | 9:10 AM | | 58.01 | 9.6 | 0 | 0 | 0 | 0 | 0.88 |
| 027SE | 2021-11-26T17:20:00Z | 9:20 AM | | 57.41 | 9.96 | 0 | 0 | 0 | 0 | 1.18 |
| 027SE | 2021-11-26T17:30:00Z | 9:30 AM | | 57.55 | 10.09 | 0 | 0 | 0 | 0 | 1.57 |
| 027SE | 2021-11-26T17:40:00Z | 9:40 AM | | 57.85 | 10 | 0 | 0 | 0 | 0 | 1.61 |
| 027SE | 2021-11-26T17:50:00Z | 9:50 AM | | 57.53 | 10.23 | 0 | 0 | 0 | 0 | 1.84 |
| 027SE | 2021-11-26T18:00:00Z | 10:00 AM | | 57.61 | 10.25 | 0 | 0 | 0 | 0 | 1.94 |
| 027SE | 2021-11-26T18:10:00Z | 10:10 AM | | 58.51 | 9.95 | 0 | 0 | 0 | 0 | 2.02 |
| 027SE | 2021-11-26T18:20:00Z | 10:20 AM | | 59.88 | 9.41 | 0 | 0 | 0 | 0 | 1.9 |
| 027SE | 2021-11-26T18:30:00Z | 10:30 AM | | 61.7 | 8.59 | 0 | 0 | 0 | 0 | 1.37 |
| 027SE | 2021-11-26T18:40:00Z | 10:40 AM | | 62.07 | 8.56 | 8.85 | 10.18 | 23.43 | 26.96 | 1.58 |
| 027SE | 2021-11-26T18:50:00Z | 10:50 AM | | 61.82 | 8.62 | 17.63 | 20.29 | 23.24 | 26.74 | 1.54 |
| 027SE | 2021-11-26T19:00:00Z | 11:00 AM | | 62.01 | 8.61 | 14.21 | 16.35 | 21.2 | 24.4 | 1.66 |
| 027SE | 2021-11-26T19:10:00Z | 11:10 AM | | 62.35 | 8.64 | 15.09 | 17.37 | 24.83 | 28.57 | 1.99 |
| 027SE | 2021-11-26T19:20:00Z | 11:20 AM | | 62.27 | 8.69 | 15.63 | 17.99 | 24.64 | 28.36 | 2.05 |
| 027SE | 2021-11-26T19:30:00Z | 11:30 AM | | 62.97 | 8.55 | 13.36 | 15.37 | 20.06 | 23.08 | 2.24 |
| 027SE | 2021-11-26T19:40:00Z | 11:40 AM | | 63.52 | 8.48 | 13.29 | 15.29 | 20.32 | 23.38 | 2.49 |
| 027SE | 2021-11-26T19:50:00Z | 11:50 AM | | 63.33 | 8.55 | 15.52 | 17.86 | 25.27 | 29.08 | 2.51 |
| 027SE | 2021-11-26T20:00:00Z | 12:00 PM | | 63.54 | 8.52 | 16.88 | 19.43 | 23.81 | 27.4 | 2.6 |

Association of Rural Town Councils
C/O Three Points Liebre Mountain Town Council
P.O. Box 786
Lake Hughes, CA 93532
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1 February 2022

SENT VIA EMAIL

Los Angeles County Department of Regional Planning
Thuy Hua, Supervising Regional Planner
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
climate@planning.lacounty.gov

Dear Ms. Hua,

Subject: Notice of Preparation of a Program Environmental Impact Report and Public Scoping Meeting for the Los Angeles County 2045 Climate Action Plan

The Association of Rural Town Councils (ARTC) appreciates the opportunity to comment on the revised Climate Action Plan (CAP) component of the General Plan's Air Quality Element. The ARTC commented on the March 2020 CAP, and continues to experience concerns regarding the implementation of target reductions in greenhouse gases and the ultimate goal of carbon neutrality by 2045, and how implementation will affect rural communities of the Antelope Valley (AV).

Firstly, there are references to "Draft 2045 Climate Action Plan" which is nowhere to be found on any Regional Planning websites or pages. In fact, the Initial Study (IS) states, "The Draft 2045 CAP includes 11 overarching strategies and 26 measures, each of which has multiple implementing actions (GRAs)." This has caused confusion because there is no 2045 plan to reference, and alludes to the Draft 2045 CAP having been completed, with the Initial Study fashioned around the 2045 Draft Plan. If the NOP and IS include evaluation of the Draft 2020 CAP, then it must be indicated in this effort, and time extended for additional evaluation and opportunity for comment.

Page one of the IS states, "Implementation of the Draft 2045 CAP, once approved, would occur throughout unincorporated Los Angeles County in all zoning designations." This is particularly concerning when considering the statements provided by Ms. Kristin Pawling of the Chief Sustainability Office during the March 2020 CAP Webinar, which indicated the 2020 plan—because of jurisdictional issues could only be imposed upon unincorporated areas of the County, but the office would like all 88 cities outside county jurisdiction to participate voluntarily in order to reach the OurCounty Sustainability Plan goals, and the County would exhibit "climate leadership." Ms. Pawling described the Plan as "aspirational, but informs "direct action at the county level," and "many targets in the CAP are directly informed by the Sustainability Plan." Furthermore, she stated the Green House Gas (GHG) Emissions Inventory that evaluated current levels of GHG were "largely countywide" (Webinar 15:36-25:20). This means a large contingent of the County's population, producing GHG, will not be legally bound by the CAP or the Sustainability Plan goals. This also means the 2045 CAP GHG reduction goals' impacts will disproportionately affect many unincorporated and rural communities. The 500,000 Antelope Valley residents will bear the largest burden of proposed GHG measures, informed by an inflated Emissions Inventory that will most benefit the south county, and jurisdictions that do not partake in the CAP efforts.

AESTHETICS

The ARTC and other town councils have submitted many letters and participated in public hearings regarding the placement of utility-scale renewable energy projects that cover thousands of acres of rural lands surrounding our communities. It is clear from our experience that the drive to “net-zero” carbon emissions has come at the expense of rural communities and other populations at large in the AV. The IS discusses ordinances already in place that would address any visual impacts created by implementation of the Draft 2045 CAP, i.e., the Hillside management Ordinance, which states, “[C]omponents of the County Code that relate to the protection of Hillside Management Areas would ensure that the scenic character of ridgelines and hillsides would be preserved. As most of the scenic vistas in LA County are available from hillsides and ridgelines, compliance with the Hillside Management Areas Ordinance would ensure that visual impacts from scenic vistas would be reduced” (11). However, *all* of the solar projects in the AV have been built on the valley floor. Moreover, if one believes that the General Plan Policies cited in this section on aesthetics has actually preserved and enforced GP/Antelope Valley Area Plan goals and policies driving (AVAP) CUP actions related to visual impacts mitigation agreed to by solar projects, then you are misled. Supplied below are photographs that are representative of what happens to our scenic vistas when utility-scale renewable energy and transmission towers are built to transport renewable energy to the LA basin. Hillside management will not reduce view impacts from hillsides and ridgelines.



View looking north from Land Veritas Mitigation Bank (2016) CA Aqueduct at 110th St. West

Environmental Impact Reviews often state similarly, that there are no significant impacts to scenic areas, as thousands of acres of chain link and barbed wire fencing intrude on the open spaces of recovering agricultural lands, as industrial commercial projects are incongruously thrust into rural areas and communities. The road transecting the two solar projects on the left has been identified for years as a Scenic Highway in the General Plan’s Scenic Highway Element 1974, and most recently in the Antelope Valley Area Plan’s Scenic Drives Map 4.2.

Below are three additional photographs showing an instance of detrimental, and likely permanent visual impacts from construction of AV Solar Ranch 1.



Before AV Solar Ranch 1, Fairmont



After the construction of AVSR 1, note the chainlink and barbed wire fencing, impermeable to ground dwelling wildlife.



The Silverado Project area, pre-construction, 110th St. West, Avenue K, TRTP and Barren Ridge Transmission lines in background. (2014)

During the construction of the Silverado Projects, as mitigation, a portion of the county-designated “Poppy Trail” was created, with fabulous views of the finished solar project, also visible from the State of California Poppy Reserve. Mitigation which certainly does not include preservation of the wildflower fields destroyed to construct the project.

Many of the RE projects currently built are along scenic routes identified in the AVAP, with inadequate mitigation for impacts created by these projects. Also, explain how the REO has protected viewshed piecemealed, project by project. Drive across the Antelope Valley for a first person look. There is very real potential for implementation of the CAP Plan to open the floodgates for thousands more acres of utility-scale solar projects. For the IS to claim less than significant impacts from the implementation of the CAP Plan is disingenuous, especially with incentives offered by the county and the federal governments, and especially by the hundreds of thousands of acres of solar necessary for current and future “fossil fuel free” LA County. The ARTC requests this be reconsidered and impacts identified as significant and explored in the Environmental Review. The mandate to bring the county into a carbon neutral state with 100 percent renewable energy will, as mentioned, be perpetrated at the expense of rural communities, residents, and natural environments across the AV, which often provide great economic benefits to local businesses.

Several times in the NOP, under various headings, the statement is made: “The Draft 2045 CAP does not include specific proposed development, and it would be speculative to guess where any specific future development might be proposed in furtherance of Draft 2045 CAP goals. For the reasons discussed . . . this criterion will not be evaluated further as part of the CEQA process for the Draft 2045 CAP.” The ARTC disagrees, and posits that the policies for the decarbonization, including streamlined review under the PEIR as stated under the “Background” heading, describes a “new development review consistency checklist to allow projects to streamline CEQA compliance for their projects by using the CAP, per CEQA Guidelines § 15183.5”(3). Furthermore, “The Draft 2045 CAP could also indirectly incentivize

the development of solar facilities in rural areas (such as the Antelope Valley), where they could be more visible from roads, trails and other at-grade elevations” (15). There is nothing indirect about this 2045 CAP. It is forthright in discussing policy efforts, strategies and measures, and eliminating GHG. The AV has already, and continues to be targeted for renewable energy with federal incentives; Bureau of Land Management and public lands policies; California’s Renewable Energy Portfolio and executive orders; California’s Desert Renewable Energy Conservation Plan; the county’s REO; SCE and LA Water & Power transmission and renewable energy projects; Joint Powers Authority Clean Power Alliance; City of Lancaster’s Net Zero Program; 2045 CAP’s Measure E1: Procure Zero-Carbon Electricity and Measure E5: Increase Renewable Energy Production; and the streamlining and incentives directed to projects through this ordinance via the CAP PEIR are the only proof needed to determine the designation of the AV as the place to build utility-scale renewable energy. How many utility-scale projects have been built in the south county?

AGRICULTURE AND FOREST

For several years, the ARTC has promoted the preservation of agriculture, as food source, as a way to improve air quality, and preserve important habitat. The water adjudication finalized in 2016 spelled a notable decline in agricultural development, and essentially took water from farmers to guarantee water for residential and commercial development, and seems to have provided a set-up for the proliferation of utility-scale solar projects.

As noted in the IS, there is little specially designated farmland. However, farm fields of the AV have provided not only food for people and livestock, but a haven for migratory birds traveling the Pacific Flyway which feed and nest in open fields, cultivated or not. The Audubon Society has designated the AV as an Important Bird Area, part of its list of places of worldwide importance. Worldwide, a coalition of organizations including the America Audubon Society has identified over 8,000 IBAs or Important Bird Areas.

The purpose of the IBA Program is to set “science-based” priorities for habitat conservation to “promote positive action to safeguard vital bird habitats.” According to the Audubon’s IBA website, “IBA inventories provide a scientifically defensible method for prioritizing conservation activities and allocating limited conservation dollars to ensure the maximum benefit to birds.” A subset of these 8,000 sites has been given the higher status of “Globally Important Bird Areas.” These 424 worldwide sites have special status due to “global conservation concern” (<http://web4.audubon.org/bird/iba/>). One of these 424 areas is in Los Angeles County, in the Western Antelope Valley. This site, the Antelope Valley Important Bird Area provides breeding, foraging and nesting habitat for Swainson’s Hawk, Golden and Bald Eagles, Northern Harriers, Burrowing Owls, Le Conte’s Thrasher, Tricolored Blackbirds and other sensitive species, including the California Condor. Describing this IBA, the Audubon Society states that, "The grassland bird community is most impressive in winter, when large numbers of raptors concentrate in the area. Large flocks of Vesper Sparrows, Horned Lark and Mountain Bluebirds also occur here, widely extirpated elsewhere in the Los Angeles area. The agricultural fields, especially alfalfa, are productive year round. Winter brings Mountain Plover, whose flocks are among the last in southern California. After wet winters, nesting grassland species like Northern Harrier linger well into spring, and occasionally even breed. Swainson's Hawk maintains its southernmost breeding outpost in the state here. As this IBA lies in the path of a major spring migrant route for songbirds, these windbreaks can host hundreds of vireos, thrushes and warblers during April and May."

Furthermore, IBAs are indicators of wide biological value for many species of flora and fauna. Again quoting the Audubon society, "Our data demonstrates that IBAs are also excellent indicators of biodiversity richness and are therefore also important for a wide range of species." This globally

important IBA is now threatened by what has been called an "alternative energy gold rush." The Antelope Valley IBA, rimmed by the Angeles Forest, the Tehachapi Mountains and year-round wetlands along the San Andreas Fault, is already home to AV Solar Ranch I, one of the largest solar plants in the world. Without a comprehensive plan in place to provide adequate mitigation for the foraging areas, i.e., loss of open, formerly agricultural lands, that will be lost due to alternative energy development, this biologically important area will be obliterated piece by piece until a tipping point is reached and threatened species like Tricolored Blackbirds, Burrowing Owls and Swainson's Hawk disappear from this area forever. The IS states:

Implementation of Draft 2045 CAP GHG reduction measures that involve ground disturbance could, depending on the location, result in the conversion of farmland to non-agricultural use. *For most types of development projects that may be proposed in furtherance of Draft 2045 CAP goals, construction is anticipated to occur primarily within developed areas such as parking lots, improvements to existing structures, and urban areas near public transportation.* However, other types of new projects encouraged by Draft 2045 CAP measures could occur in previously undeveloped areas such as facilities to increase waste diversion or renewable energy. *Measure E1: Procure Zero-Carbon Electricity and Measure E5: Increase Renewable Energy Production could result in the development of photovoltaic solar or other renewable energy generation facilities in undeveloped areas, which development could result in the conversion of farmland to a non-agricultural use.*

The ARTC argues that "most *types* of development" will occur in developed areas might be true, but particular large-scale projects allowed on A-2 zoned lands will likely occur in the AV, such as waste facilities, or open areas for waste diversion, or renewable energy. The AV already receives millions of tons of trash-filled green waste in the form of mulch, spread across fields that previously provided habitat for birds and other species reliant on our open fields for forage and nesting. For some reason, the decomposition of such waste is not considered a pollutant or a cause of significant impact and is promoted by our state and county. In addition, large mulch berms are used as a visual shield to obscure views of illegal marijuana growing operations. They are also a fire hazard, and are quite difficult to extinguish once ignited—ironically, no impact option is chosen in the IS.

It is also interesting that the IS states, "as a general matter, forest land would not be suitable for the implementation of actions in furtherance of the Draft 2045 CAP. For example, solar energy generation requires access to sun; forested areas do not provide that resource and would not be deforested to serve a solar energy generation use." While forested areas would not be deforested, and environmental impact study in the IS is not warranted, the anticipated influx of solar energy projects would, in fact, destroy tens of thousands of acres in the quest to achieve net-zero energy; it is repeatedly stated that this will not be addressed by the PEIR, whose subject is promotion of renewable energy. There will be significant impacts to "agriculturally zoned" lands.

Preservation of rural character is important to many rural town council areas, since many arose out of agricultural activity during the nineteenth and twentieth centuries. The 2045 CAP might not propose land use designations that would require zone changes. Unfortunately, zone change and a nearly blanket conversion of A-1 to A-2 during the development of the Antelope Valley Area Plan opened the door for ease in imposing utility-scale renewable energy upon rural residents, and all the destruction—including visual and scenic impacts, air quality issues, and lost biological value.

AIR QUALITY

The ARTC has had continuing concerns regarding air quality in the AV. It has been such a concern that the ARTC collaborated with the AVAQMD to submit a State of California Community Air Protection Program grant request in 2018 (enclosed). While there are many sources of particulate pollution in the AV, the introduction of utility-scale renewable energy has contributed mightily to an ongoing dust particulate problem; along with sand, rock and gravel production; fallow agricultural fields (lack of water); further sources of particulate pollution include two major highways, freight and passenger rail lines, and commercial/industrial activities.

The AV is an air quality nonattainment area for PM₁₀. Over the past ten years, residents in communities of the AV have experienced increasingly unhealthful air and property destruction akin to the Dust Bowl era of the 1930s and resulting threat of pulmonary illness. Predictable drought, water adjudication, diminishing agricultural activity, and renewable energy development have proven dust control measures and “Best Management Practices”(BMPs) like Antelope Valley Air Quality Management District's (AVAQMD) Rule 403, unsuccessful in preventing fugitive dust.

Fugitive dust can affect “sensitive receptors”—children, asthmatics, the elderly, those with pulmonary disease, cardiovascular disease, as well as the general public at large, because it can carry the spores of *Coccidioides immitus*—better known as Valley Fever. Failure of dust control plans puts residents all over the Antelope Valley at risk for this fungal infection, which can impose large public costs in lost productivity, disability, and healthcare. This concerns residents every time a utility-scale solar project is proposed. Since the AV is an air quality non-attainment area for PM₁₀, this leaves the question of whether current non-attainment of air quality levels of particulates combined with projects previously mentioned, plus Centennial, the National Cement Plant, and reasonably foreseeable massive solar and wind development will bring attention from the United States Environmental Protection Agency.

Because of cumulative effects of other utility-scale solar construction and operations, we see the need for expanded monitoring across the AV, through additional monitoring stations nearer to sources of pollution, with more encompassing, accurate quantification and analysis of Antelope Valley air quality to determine levels of PM₁₀ and PM_{2.5}. These actions are necessary to protect the health and well being of not only rural residents, but all residents of the AV.

The ARTC and other entities have repeatedly commented on air quality issues and the public health implications that are detailed in LA County Public Health Indicators 2018. The AV has the highest childhood asthma rate in the county, along with cardiovascular death rates, and low birth weight. This is a serious public health issue that must be evaluated in environmental impact review.

BIOLOGICAL RESOURCES

Many letters have been submitted on a variety of renewable energy projects that have impacted the natural environment, for which mitigation has proved insufficient. There are also many other impacts associated with biological resources related to renewable energy and various other development activities. The IS states, “There are currently no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved state, regional, or local habitat conservation plans in effect in unincorporated Los Angeles County. Therefore, no impact would occur.”

Conveniently, there are no *adopted* conservation plans in LA County. However, the County declined to support the State of California Fish and Wildlife's Antelope Valley Regional Conservation Investment Strategy, even though it is non-regulatory. There are issues with wildlife movement, and fragmentation of conservation land, which individual EIRs for projects are allowed to perpetrate. Regional Planning allows projects to set aside part of their development sites for conservation purposes, which are not connected to any other conservation lands, corridors, etc., Lacking are documented monitoring and evaluation of the success or failure of mitigation efforts for not only "Biology" concerns, but all of the issues discussed throughout this letter and listed in the IS. Biologist and raptor expert, K. Shawn Smallwood, of U. C. Davis, has also commented on the lack of monitoring and enforcement for conditions of approval for renewable energy projects, including the West Antelope Solar Project:

It has long been known that mitigation pursuant to CEQA has often either failed or has not been implemented, but with no consequences to the take-permit holder (Silva 1990). There should be consequences for not achieving mitigation objectives or performance standards. The project proponents should be required to provide a performance bond in an amount that is sufficient for an **independent party** to achieve the mitigation objectives originally promised, and in this case, the promises should be much more substantial. A fund is needed to support named individuals or an organization to track the implementation of mitigation measures. Report deadlines should be listed, and who will be the recipients of the reports. In my professional opinion . . . lack of specific monitoring details renders [environmental review] inadequate and uncertain and makes it impossible to gauge whether to what extent any mitigation measures will lessen potentially significant impacts on species. If these measures are not clearly laid out . . . then there will be no basis to determine that impacts will be less than significant once implemented. Furthermore, without adequate funding allocated in advance, there is no certainty that any proposed mitigation will actually take place.

Unfortunately, solar fields in the Antelope Valley destroy foraging areas and habitat for what Audubon has identified as a "Globally Important Bird Area." Non-native grassland and recovering vegetation provide cover, nesting, and foraging for indigenous and migratory waterfowl, song birds, and raptors alike, some of which are special status species. Air quality in the Antelope Valley has caused the highest incidence of respiratory disease in Los Angeles County according to their Health Department publication "Key Indicators of Health 2017." Many residents have stated their opposition to solar development, fearing respiratory disease and valley fever, which is ignored. It is more important to become net-zero and provide popularized feel-good "green energy" than be concerned about residents' health. This green energy touted by the State of California, Los Angeles County, and the City of Lancaster, to reduce electrical generation carbon emissions, is misleading. The costs include not only public health issues, but also real estate--desert environments that the Bureau of Land Management says could take 3,000 years to recover; the carbon exchanging qualities of undisturbed desert soils; the industrial pollution and carbon created by mining, processing, and manufacture of solar panels (in China, not in our backyard)--all produced with fossil fuels; difficulty recycling panels and its energy costs; inefficiency of solar electricity production; and industrializing our rural desert communities.

There are documented instances of destruction by sPower of an occupied Red Tailed Hawk nest, and Red Dawn Sunpower, LLC's wholesale removal of 95.44 acres of Joshua Trees of which 63.86 acres were within the Joshua Tree SEA #60 (unfortunately before their protected listing by CDFW).

HAZARDOUS MATERIALS

The ARTC requests that the PEIR evaluate the release of hazardous materials related to solid waste disposal, renewable energy projects—including battery storage facilities, organic waste processing facilities, sewage and/or mulch spreading operations, etc. The North County possesses large areas considered for Areas Potentially Suitable for Siting Alternative Technology Facilities in Los Angeles County (<https://dpw.lacounty.gov/epd/swims/News/swims-more-links.aspx?id=4#>).

UTILITIES AND SERVICE SYSTEMS, ENERGY

Implementation of the 2045 CAP would promote the construction of energy transmission, which has been instrumental in the ignition of fires during high wind events and have caused the most destructive fires in California history. Areas that are targeted for transmission rights-of-way are stretched across miles from the source of energy production; fine examples exist from the AV to the South County—Barren Ridge Transmission Project, and the TRTP. The areas traversed are put at great risk of fire, and include our rural communities, many of which are in Very High Fire Hazard Zones. PSPS reduces our communities' ability to remain resilient in the face of fire danger through loss of ability to pump water for personal use, for fire suppression, and to communicate during these outages. Please evaluate significant impacts to our communities from related risk of additional transmission that will be required for the achievement of net zero emissions mandated by the 2045 CAP.

Perhaps foremost among concerns is the “Fossil Fuel Free LA County.” Retrofitting buildings—our homes with all electric appliances would also reduce rural residents' ability to maintain and protect our lives and property in the event of power failure. We are often last to receive repairs to services, and we know we must remain independent, and really, present prime examples of resilience touted by the OurCounty Sustainability Plan. Taking away fuel sources for pumping water, for warmth and cooking in the extreme weather conditions predominant in the AV is a very, very significant impact, and must be evaluated in the PEIR.

Respectfully,



Susan Zahnter
Director

CC: Supervisor Kathryn Barger, Planning Deputy Anish Saraiya, Senior Field Deputy Donna Termeer, Assistant Field Deputy Charles Bostwick

From: [Kathy Knight](#)
To: [DRP EPS Climate](#)
Subject: NOP Comments - Climate Action Plan Update
Date: Tuesday, February 1, 2022 4:25:02 PM

CAUTION: External Email. Proceed Responsibly.

February 1, 2022

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Sent via email to: climate@planning.lacounty.gov

RE: NOP COMMENTS - CLIMATE ACTION PLAN UPDATE

From: Kathy Knight, Board Member
Ballona Ecosystem Education Project
1122 Oak St., Santa Monica, CA 90405
(310) 450-5961
kathyknight66@gmail.com

Ballona Ecosystem Education Project has the following comments on the Climate Action Plan Update:

1. This proposed plan includes the area of unincorporated Marina del Rey (pg. 5). Marina del Rey
Is directly adjacent to the north side of the Ballona Wetlands Ecological Reserve (BWER).
This wetland
Is a very important reserve for many reasons including:
 - a. It is a rare mostly freshwater wetland on the California coast that was saved years ago by local citizens
and purchased in 2003 by the State of California. It is currently under the supervision of the California
Dept. of Fish & Wildlife.
 - b. There are endangered species that live at the BWER, including the California Least Tern, Belding's Savannah Sparrow, and El Segundo Blue Butterfly.
 - c. It is the opportunity to do a slow careful restoration of this wetland to preserve its original ecology.
 - d. There are 3 drinking water quality aquifers below the surface at Ballona that are critical to future sources of water for humans, and for the wildlife at Ballona. They need to be strongly protected.
 - e. There needs to be a Groundwater Sustainability Plan for the aquifers and other ground water of the BWER, so there is a plan on how to protect the underground water there. There

also needs to be a hydrology study of the Ballona Wetlands Ecological Reserve done before any other action is taken. There has never been one done, so we do not know the ramifications of work in the area.

For these reasons and many more that we do not have time to write in since we just found out about this Climate Action

Plan Update yesterday evening, please do not plan any actions that would negatively impact the Ballona Wetlands Ecological Reserve.

And finally, please send us any information, updates, hearings on your notification list, to our email or address as posted above.

Thank you.

2/1/2022

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Re: Comments on the Notice of Preparation of a Draft Program Environmental Impact Report and Initial Study for the Los Angeles County 2045 Climate Action Plan

Dear Ms. Hua:

We are contacting you on behalf of BizFed, the Los Angeles County Business Federation. An alliance of over 200 business organizations who represent over 400,000 employers in Los Angeles County. We are writing to provide brief comments on the Notice of Preparation ("NOP") of a Draft Program Environmental Impact Report ("PEIR") and Initial Study ("IS") for the Los Angeles County 2045 Climate Action Plan ("2045 CAP" or "CAP").

We appreciate the county giving the community an opportunity to provide comments. However, we would like to respectfully note that the NOP and IS do not contain enough information to respond adequately to the County's request. The only draft of the 2045 CAP available to review is from two years ago and the County recognizes that the new, unreleased draft will be "substantially" revised. Without an updated CAP to review, it is impossible for the public to fully consider and comment on the CAP's potential environmental impacts.

We look forward to working with the county in developing a revised CAP that meets the state and county's clean air goals while balancing economic stability, job growth, population growth, housing, homelessness, and other pressing issues. As such, we believe the revised 2045 CAP must include a detailed economic impact analysis and cost analysis that can give regulators, residents, businesses, developers, and others a realistic scope as to how the plan will impact them.

As the County notes, since the release of the 2045 CAP in March of 2020, our region has changed considerably. We have learned just how fragile our supply chain is and believe it is necessary for the county to also consider a resiliency study that shows our dependency on the goods movement and how much the CAP can increase or decrease that dependency.

Further, recent new housing developments in the County have been at the forefront of climate resiliency. The LA Times reported that the County has "the most environmentally friendly suburban developments ever planned in California."¹ Tejon Ranch recently entered into a settlement agreement that included a commitment to reduce its GHG emissions to zero. Newhall Ranch was the first housing development of its size to commit to net-zero GHGs and was recognized in the California Air Resources Board's Scoping Plan as a model of sustainability. The 2045 CAP should recognize that projects may reduce GHG emissions through means other than those included in the CAP. For example, projects that commit to a net-zero GHG strategy should not have new GHG mitigation requirements imposed on them.

¹ Louis Sahagún, Environmental group and Tejon Ranch agree on plan to build 19,300 zero-emission homes, Los Angeles Times (Dec. 1, 2021), available at: <https://www.latimes.com/california/story/2021-12-01/tejon-ranch-will-build-19-300-zero-emission-homes>.

We appreciate your attention to these matters and look forward to reviewing a new draft 2045 CAP when available. We respectfully request that the County recirculate the NOP and IS for another round of public comment when the draft CAP is made available, which is necessary for the public to provide meaningful input on the PEIR.

If you have any questions regarding this letter, please contact sarah.wiltfong@bizfed.org.

Sincerely,



Brissa Sotelo-Vargas
BizFed Chair
Valero



David Fleming
BizFed Founding Chair



Tracy Hernandez
BizFed Founding CEO
IMPOWER, Inc.

BizFed Association Members

7-Eleven Franchise Owners Association of Southern California
Action Apartment Association
Alhambra Chamber of Commerce
American Beverage Association
Apartment Association of Greater Los Angeles
Apartment Association, CA Southern Cities, Inc.
Arcadia Association of Realtors
AREAA North Los Angeles SFV SCV
Armenian Trade and Labor Association
Associated Builders & Contractors, Inc. Southern California Chapter
Association of Club Executives
Association of Independent Commercial Producers
Azusa Chamber of Commerce
Bell Gardens Chamber of Commerce
Beverly Hills Bar Association
Beverly Hills Chamber of Commerce
Biocom California - Los Angeles
BICEPP
Black Business Association
BNI 4SUCCESS
Bowling Centers of Southern California
Boyle Heights Chamber of Commerce
Building Industry Association - Baldyview
Building Industry Association - LA/Ventura Counties
Building Industry Association - Southern California
Building Owners & Managers Association of Greater Los Angeles
Burbank Association of REALTORS
Burbank Chamber of Commerce
Business and Industry Council for Emergency Planning and Preparedness
Business Resource Group
CA Natural Resources Producers Assoc
CalAsian Chamber
Calabasas Chamber of Commerce
California Apartment Association- Los Angeles
California Asphalt Pavement Association
California Bankers Association
California Business Properties Association
California Business Roundtable
California Cannabis Industry Association
California Cleaners Association
California Construction Industry and Materials Association
California Contract Cities Association
California Fashion Association
California Gaming Association
California Grocers Association
California Hispanic Chamber
California Hotel & Lodging Association
California Independent Oil Marketers Association (CIOMA)
California Independent Petroleum Association
California Life Sciences Association
California Manufacturers & Technology Association
California Metals Coalition
California Restaurant Association
California Retailers Association
California Small Business Alliance
California Self Storage Association
California Society of CPAs - Los Angeles Chapter
California Trucking Association
Carson Chamber of Commerce
Carson Dominguez Employers Alliance
Central City Association
Century City Chamber of Commerce
Chatsworth/Porter Ranch Chamber of Commerce
Citrus Valley Association of Realtors
Claremont Chamber of Commerce
Coalition for Renewable Natural Gas
Coalition for Small Rental Property Owners
Commercial Industrial Council/Chamber of Commerce
Construction Industry Air Quality Coalition
Construction Industry Coalition on Water Quality
Council on Trade and Investment for Filipino Americans
Covina Chamber
Crenshaw Chamber Of Commerce
Crescenta Valley Chamber of Commerce
Culver City Chamber of Commerce
Downey Association of REALTORS
Downey Chamber of Commerce
Downtown Center Business Improvement District
Downtown Long Beach Alliance
El Monte/South El Monte Chamber
El Segundo Chamber of Commerce
Employers Group
Encino Chamber of Commerce
Energy Independence Now
Engineering Contractor's Association
EXP
F. A. S.T. - Fixing Angelenos Stuck in Traffic
Friends of Hollywood Central Park
FuturePorts
Gardena Valley Chamber
Gateway to LA
Glendale Association of Realtors
Glendale Chamber
Glendora Chamber
Google Client Services, LLC
Greater Antelope Valley AOR
Greater Bakersfield Chamber of Commerce
Greater Lakewood Chamber of Commerce
Greater Leimert Park Village Crenshaw Corridor Business Improvement District
Greater Los Angeles African American Chamber
Greater Los Angeles Association of REALTORS
Greater Los Angeles New Car Dealers Association
Greater San Fernando Valley Regional Chamber
Harbor Association of Industry and Commerce
Harbor Trucking Association
Historic Core BID of Downtown Los Angeles
Hollywood Chamber
Hong Kong Trade Development Council
Hospital Association of Southern California
Hotel Association of Los Angeles
Huntington Park Area Chamber of Commerce
ICWA
Independent Cities Association
Industrial Environmental Association
Industry Business Council
Inland Empire Economic Partnership
International Cannabis Business Women Association
International Franchise Association
Irwindale Chamber of Commerce
La Cañada Flintridge Chamber
LA Fashion District BID
LA South Chamber of Commerce
Lancaster Chamber of Commerce
Larchmont Boulevard Association
Latin Business Association
Latino Food Industry Association
Latino Restaurant Association
LAX Coastal Area Chamber
League of California Cities
Long Beach Area Chamber
Long Beach Economic Partnership
Los Angeles Area Chamber
Los Angeles County Board of Real Estate
Los Angeles County Waste Management Association
Los Angeles Economic Development Corporation
Los Angeles Gateway Chamber of Commerce
Los Angeles Gay & Lesbian Chamber of Commerce
Los Angeles Latino Chamber
Los Angeles Parking Association
MADIA Tech Launch
Malibu Chamber of Commerce
Marketplace Industry Association
Motion Picture Association of America, Inc.
MoveLA
Multicultural Business Alliance
NAIOP Southern California Chapter
Nareit
National Association of Tobacco Outlets
National Association of Waterfront Employers
National Association of Women Business Owners - CA
National Association of Women Business Owners - LA
National Federation of Independent Business
National Hookah Community Association
National Latina Business Women's Association
Orange County Business Council
Pacific Merchant Shipping Association
Pacific Palisades Chamber
Panorama City Chamber of Commerce
Paramount Chamber of Commerce
Pasadena Chamber
Pasadena Foothills Association of Realtors
PhRMA
Planned Parenthood Affiliates of California
Pomona Chamber
Rancho Southeast Association of Realtors
ReadyNation California
Recording Industry Association of America
Regional Black Chamber-San Fernando Valley
Regional Hispanic Chamber of Commerce
Regional San Gabriel Valley Chamber
Rosemead Chamber
San Dimas Chamber of Commerce
San Gabriel Chamber of Commerce
San Gabriel Valley Economic Partnership
San Pedro Peninsula Chamber
Santa Clarita Valley Chamber
Santa Clarita Valley Economic Development Corp.
Santa Monica Chamber of Commerce
Sherman Oaks Chamber
South Bay Association of Chambers
South Bay Association of Realtors
South Gate Chamber of Commerce
Southern California Contractors Association
Southern California Golf Association
Southern California Grantmakers
Southern California Leadership Council
Southern California Minority Suppliers Development Council Inc.
Southern California Water Coalition
Southland Regional Association of Realtors
Sunland/Tujunga Chamber
Sunset Strip Business Improvement District
The California Business & Industrial Alliance (CABIA)
Torrance Area Chamber
Tri-Counties Association of Realtors
United Cannabis Business Association
United Chambers – San Fernando Valley & Region
United States-Mexico Chamber
Unmanned Autonomous Vehicle Systems Association
US Green Building Council
US Resiliency Council
Valley Economic Alliance, The
Valley Industry & Commerce Association
Vermont Slauson Economic Development Corporation
Vernon Chamber
Veterans in Business Network
Vietnamese American Chamber
Warner Center Association
West Hollywood Chamber
West Hollywood Design District
West Los Angeles Chamber
West San Gabriel Valley Association of Realtors
West Valley/Warner Center Chamber
Western Electrical Contractors Association
Western Manufactured Housing Association
Western States Petroleum Association
Westside Council of Chambers
Whittier Chamber of Commerce
Wilmington Chamber
World Affairs/Town Hall Los Angeles
World Trade Center

From: [Sofia Quinones](#)
To: [DRP EPS Climate](#); firstdistrct@bos.lacounty.gov
Cc: [Dr. Nadine Diaz](#); [Jimenez Martha](#)
Subject: Unincorporated East os Angeles County Climate Action Plan
Date: Tuesday, February 1, 2022 4:56:39 PM

CAUTION: External Email. Proceed Responsibly.

Supervisor, Hilda Solis,

We are requesting that you extend the deadline for the LA County Climate Action Plan until our county is back to normal.

The plan itself violates the California Environmental Quality Act. Los Angeles County bears responsibility for sanctioning the proceeding of this current County Climate Action Plan. The pandemic has severely impacted disenfranchised communities. The meetings that took place excluded these very communities by denying us the ability to participate in this process. Furthermore, when we expressed our objections to these proceedings do to the lack of outreach in our communities and based on the digital divide and language barriers the response was to proceed. The response to our concerns was to email people and to have volunteers do the outreach work with no plan, materials or resources to do so. We requested that we be contacted and that did not happen. Failing to conduct a proper scoping process is a violation of CEQA. To proceed with this Climate Action Plan you are enabling the environmental justice issues that are killing us and it enables the segregation and continued racial inequality of our disenfranchised communities.

That data of the meeting participants proves our point. Furthermore, people outside of Unincorporated East LA attended the meetings. In these online meetings there is no way to distinguish who is from the community. According to a moderator there were participants from other areas of the state and outside of the state participating. We are requesting that your staff meet with the Boyle Heights East Los Angeles Coalition before you approve this Climate Action Plan. That you meet with other disenfranchised communities and those living in rural areas that were excluded from participating. Failing to hold inclusive meetings not only negatively impacts our environment it compounds the racial wealth gap. It enables predatory banks to exploit us and further enables multinational corporations to monopolies industries. Our coalition is calling for a moratorium on all proposed roundabouts in Unincorporated East LA and across the county were the outdated infrastructure has not been replaced and were the number of cars does not meet the vehicle threshold for a roundabout In East LA we have over 11,000,000 million cars a year going through our neighborhoods and the East LA Interchange. We can improve our intersections and provide safer pedestrian and vehicle intersections without increasing our carbon foot print. The roundabouts in our community were built wrong. They pose an eminent threat to pedestrians and motorist. The disabled ramps lead directly into the path of vehicles in the roundabouts. They remove much needed parking and now residents have to drive around searching for parking. They also negatively impact emergency response time. Roundabouts that were designed prior to the construction of an intersection are safer and more efficient than the ones that have been recently popping up everywhere. Finding loop holes to build them is not about safety at all. We

hope you contact us so that we can submit proper responses because now the information provided to the public was incomplete and fails to include data that we need in order to provide an adequate response to the issues that have killed us, are killing us and will continue to harm us if not remedied.

Por Mi Raza Habla Mi Espiritu!

Sofía G. Quiñones
Boyle Heights
East Los Angeles Coalition
(323)494-6005



January 31, 2022

Thuy Hua, Supervising Regional Planner
County of Los Angeles, Department of Regional Planning
320 West Temple St., 13th Floor
Los Angeles, CA 90012

submitted via electronic mail: climate@planning.lacounty.gov

Re: Building Industry Association (BIA-LAV) Comment Letter – 2045 Climate Action Plan – The Scope of the Pending Draft EIR based on the Initial Study; Need to Review Land Use Policies and Their Climate Change Implications vis-à-vis Housing and Population.

Dear Ms. Hua and Regional Planning Staff,

The Los Angeles/Ventura Chapter of the Building Industry Association of Southern California, Inc. (BIA-LAV) is a non-profit trade association that promotes and supports homebuilding activities in the Los Angeles and Ventura Counties. BIA-LAV and our members have long supported reasonable and balanced environmental policies, and sought to harmonize (i) the increasing need for additional housing to support our growing population with (ii) environmental sustainability, resiliency and goals. On behalf of our membership, we respectfully provide these comments concerning the scope of the pending environmental review of the County's update of its climate action plan, which will be referred to as the "2045 CAP." Specifically, the comments below respond to the initial study that was posted by the County.

There is increasing general acceptance of the reality that anthropogenic, global climate change ("GCC") is one of the most dire pressing challenges and that it must be addressed urgently and boldly. The State of California has long been ahead of the rest of our nation and most of the world's other nations in articulating such recognition. That said, the steps that could possibly be undertaken to address GCC would themselves each have myriad and profound consequences for our society and our citizenry at large.

As homebuilders, BIA-LAV's membership understands how challenging it will be to both address climate change and maintain standards of living. Moreover, we need to do more to raise standards of living for a great many citizens. Our society will need to undertake bold steps even if we were all to choose the best possible steps to address GCC. We will pay far more, however, if we were to take missteps, impose ill-considered measures, or adhere to existing public policies that are proven wrong in light of new data.

With that in mind, the County's pending study in advance of the 2045 CAP needs to be both circumspect and thorough so that all of the County's policies will (i) cohere and point accurately toward desired GCC benefits, while also (ii) best serve our region's population and benefit the economy on which we all depend. BIA-LAV respectfully asserts that the County would shirk its responsibilities under the California Environmental Quality Act (CEQA) if the draft environmental impact report (EIR) for the 2045 CAP were to not include a serious, thorough study of the impacts the Climate Action Plan will have on (i) **population and housing**, (ii) **land use and planning**, and (iii) all other potential environmental impacts (direct, indirect and cumulative) identified in Appendix G of the CEQA Guidelines. All such impacts should be scrutinized specifically through the lens of GCC and the need to reduce greenhouse gases (GHG) emissions.

There are three primary reasons why potentially significant environmental effects of the 2045 CAP on population and housing must be studied and reflected in the draft EIR for the 2045 CAP:

First, the preferred initial study for the pending 2045 CAP indicates that the County will study and potentially propose eliminating natural gas and propane heating and cooking from all new development in the unincorporated county. We recognize that such a general goal has been ambitiously embraced even before it has been studied in the context of more rigorous CEQA environmental review. Undoubtedly, however, any such measure would have profound impacts particularly on housing and population, as well as on land use and other impacts concerning which study is required pursuant to Appendix G of the CEQA Guidelines. Therefore, these considerations must be studied in the pending EIR.

Presently, the only available practical, large scale alternative to natural gas or propane heating is to use electric heat pumps. Federal studies have long indicated that electric heat pumps operate relatively inefficiently when ambient temperatures fall. One such federal study last decade indicated that efficiency drops when ambient temperatures fall below 45°. ¹ Although gradual technological improvements have been made and will presumably continue, it is nonetheless entirely foreseeable that electric heat pumps will continue to have relatively limited efficacy when ambient temperatures drop to low levels, which is inevitable by degree in many parts of the county. When this fact is combined with the fact that electrical power outages at different scales are inevitable from time to time, the County must recognize that such de-carbonization will inevitably require citizens to flee their homes from time to time for warmth. Homeowners already have limited or no use of wood burning fireplaces to comply with other environmental concerns.

¹ U.S. Department of Energy Office of Energy Efficiency & Renewable Energy, Measure Guideline: Heat Pump Water Heaters in New and Existing Homes (Feb. 2012), at 8 <https://www.nrel.gov/docs/fy12osti/53184.pdf>.

Therefore, any County mandate to “de-carbonized” heating will foreseeably have profound effect on (i) the utility of all new housing that is built subject to the proposed mandate (especially in colder parts of the county such as the more elevated north county), (ii) the quantum of new housing production, (iii) the consumer acceptance thereof, and (iv) population. We can all foresee inevitable disruptions – of different durations and however localized or widespread – in the electrical power supplies which would necessarily power electric heat pumps. Consequently, any requirement that all new housing in the unincorporated areas of the County must be “de-carbonized” would create serious life-safety issues for citizens who would reside in such housing. Such a policy would also have a profound impact on both the consumer-desirability and general economic viability of such new housing. For these reasons alone, the foreseeable effect of the projected 2045 CAP on housing, population and land use must be studied.

Second, the County’s ongoing land use policies, particularly as they relate to so-called “edge” or “greenfield” development (e.g., “new town” development or new suburban development), have evolved and been extended thus far without any meaningful and informed consideration of their GCC implications. The County continues to assume, for example, that heroic reductions in per capita vehicle miles traveled (VMT) should be pursued through increasingly constrictive land use restrictions and related incentives, and that concomitant GHG reductions will result from compelling far more transit-oriented urban redevelopment and largely curtailing suburban and exurban (new town) development. Such assumptions underlie the County’s recent update to the housing element of its general plan.

The most recent data show, however, that the County’s assumptions and conclusions about the GCC environmental effects of its land use policies are demonstrably incorrect. A growing body of compelling evidence shows that both jobs and housing demand are fleeing the more urbanized areas in favor of suburban and relatively bucolic “work from home” environs, accelerating a trend that was growing before the pandemic.² One recent study shows that COVID-19 pandemic has accelerated an antecedent trend towards urban exodus toward the suburbs, the exurbs, and significantly smaller cities – primarily in sunbelt states with less constrictive land use policies but also substantially higher per capita GHG emission rates.³ For

² Stephan D. Whitaker, “Did the COVID-19 Pandemic Cause an Urban Exodus?” Federal Reserve Bank of Cleveland, February 5, 2021, <https://www.clevelandfed.org/newsroom-and-events/publications/cfed-district-data-briefs/cfddb-20210205-did-the-covid-19-pandemic-cause-an-urban-exodus>.

³ Families and individuals are rapidly fleeing California in great numbers to move to far less GCC-caring states. Mark Calvey, “Census Finds Almost 1% of Californians Left the Golden State in Past Year,” San Francisco Business Times, December 21, 2021, <https://www.bizjournals.com/sanfrancisco/news/2021/12/21/census-finds-almost-1-of-californians-left-golden.html>.

example, between 2019 and 2021, U.S. consumer preference for larger homes in less dense areas grew from 53% to 60%.⁴

No new CAP can be thoughtfully completed without studying and taking into account its impact in light of Angelenos' evolving preferences for housing and lifestyle preferences, because the interplay of the CAP with these popular preferences will unquestionably affect both the County's population growth and retention and the potential realization of additional housing stock in the County, which themselves affect climate action. Moreover, given California's and the county's relatively superior transition to electric vehicle use and other vehicular fleet and fuel change, the County should, in order to best address GCC, be pursuing positive land use policies which accommodate potential population growth and discourage out-migration in concert with promoting fleet and fuel change.⁵

Third, new data has been garnered recently by the scientists worried about the increasingly ominous outlook for GCC concerning the GHG implications of different housing typologies and densities. One recent study on the topic of urban sustainability shows the life-cycle, per capita GHG impacts of taller buildings, such as those which are being strongly promoted by the existing land use policies throughout the County and the cities located within it, are GCC-harmful on a per capita, life-cycle basis when compared lower, less intense development.⁶ The study strongly indicates that the type of mid-rise and high-rise downtown development that is now being hyped by governmental regional planners is harmful from a life-cycle, per capita GHG standpoint. The study thus also indicates the need for Los Angeles County and its Department of Regional Planning to reconsider and reverse their singularly constrictive, centripetal, and urban-centric policies.

Such emerging data on land use patterns and GHG impacts call for a new, exhaustive and open-minded look at the County's land use policies. Given that the County must want to make the 2045 CAP as sound and effective as it can be, the County must carefully study, disclose to the public in the draft EIR, and take into account emerging data of the type discussed above. Thus,

⁴ Vianney Gomez, "More Americans now say they prefer a community with big houses, even if local amenities are farther away," Pew Research Center, August 26, 2021, <https://www.pewresearch.org/fact-tank/2021/08/26/more-americans-now-say-they-prefer-a-community-with-big-houses-even-if-local-amenities-are-farther-away/>.

⁵ As reflected in relatively recent studies by the federal government, California has the second lowest per capita energy-related CO₂ emissions amongst the 50 states. U.S. Energy Info. Admin., "Energy-Related Carbon Dioxide Emissions by State, 2005-2016," February 27, 2019, <https://www.eia.gov/environment/emissions/state/analysis/>.

⁶ Francesco Pomponi, "Decoupling Density from Tallness in Analysing the Life Cycle Greenhouse Gas Emissions of Cities," Nature Partners Journal – Urban Sustainability, July 5, 2021, <https://doi.org/10.1038/s42949-021-00034-w>.

Thuy Hua, Supervising Regional Planner

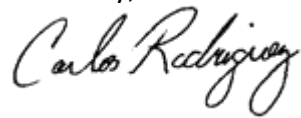
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when preparing the draft EIR for the 2045 CAP, the County should both study broadly and reconcile the County's housing, population, land use, and achievable GHG reductions.

Notably, the County's policymakers will always retain discretion concerning county regional planning, housing policy and land use approvals. Their ongoing discretion will apply to general plan amendments and all relevant policies, as well as to all individual project approvals made and conditioning imposed – or not imposed – under CEQA (i.e., overriding considerations). Given the critical need to put in place the best and most carefully balanced policies to address GCC consistent with the broader goal of general betterment, BIA-LAV respectfully requests that the County study carefully and thoroughly the housing, population, land use and planning implications of the measures that are appropriate for the 2045 CAP. Thank you for your consideration and we look forward to the opportunity for further discussion.

Sincerely,



Carlos Rodriguez,
Chief Policy Officer
BIA Southern California

cc:

Supervisor Hilda L. Solis, 1st District
Supervisor Holly Mitchell, 2nd District
Supervisor Sheila Kuehl, 3rd District
Supervisor Janice Hahn, 4th District
Supervisor Kathryn Barger, 5th District



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Via Electronic Mail Only

January 31, 2022

Thuy Hua
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THua@planning.lacounty.gov

Subject: Notice of Preparation of a Draft Programmatic Environmental Impact Report for the Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP), SCH #2021120568, Los Angeles County Department of Regional Planning, Los Angeles County

Dear Ms. Hua:

The California Department of Fish and Wildlife (CDFW) has reviewed a Notice of Preparation (NOP) of Draft Programmatic Environmental Impact Report (PEIR) from the Los Angeles County Department of Regional Planning (DRP) for the Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) (Project). CDFW appreciates the opportunity to provide comments regarding aspects of the Project that could affect fish and wildlife resources and be subject to CDFW's regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 *et seq.*). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

Conserving California's Wildlife Since 1870

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Project Description and Summary

Objective: The Project proposes a General Plan Amendment to replace the Los Angeles County (County) Community Climate Action Plan with the Draft 2045 CAP. The Draft 2045 CAP would be a policy document intended to reduce unincorporated County-wide greenhouse gas (GHG) emissions. The Draft 2045 CAP would demonstrate how local actions can support goals to reduce GHG emissions and ensure that the County's reduction of GHG emissions aligns with State goals to reduce GHG emissions and the Our County Sustainability Plan.

The Draft 2045 CAP would be modeled with the land use assumptions, policies and implementation programs found within the General Plan (including the current 6th Cycle 2021-2029 Housing Element), as well as within other County projects and programs. The Draft 2045 CAP would include an updated GHG emissions inventory for 2018; new emissions forecasts for 2030, 2035, and 2045; new GHG emissions targets for 2030, 2035, and 2045; a revised suite of GHG reduction strategies, measures, and actions; a technical modeling appendix to explain the Draft 2045 CAP's GHG reduction estimates; a consideration of environmental justice and equity concerns; and a new development review consistency checklist to allow projects to streamline CEQA compliance by using the Draft 2045 CAP (CEQA Guidelines, § 15183.5). The Draft 2045 CAP is anticipated to include approximately 26 recommended GHG reduction measures. The recommended GHG reduction measures are to be organized under five main categories and 11 strategies listed below.

- 1) Climate Leadership
 - Strategy 1: Lead by example towards carbon neutrality
- 2) Transportation
 - Strategy 2: Increase densities and diversity of destinations with an emphasis near transit
 - Strategy 3: Reduce single-occupancy vehicle trips
 - Strategy 4: Institutionalize low-carbon transportation
- 3) Building Energy & Water
 - Strategy 5: Decarbonize buildings and energy use
 - Strategy 6: Increase generation and resilience of renewable energy
 - Strategy 7: Improve efficiency of building energy use
 - Strategy 8: Promote water conservation
- 4) Waste
 - Strategy 9: Reduce and divert waste
- 5) Agriculture, Forestry, and Other Land Use
 - Strategy 10: Conserve Forests and Working Lands
 - Strategy 11: Promote Carbon Sequestration and Sustainable Agriculture

Individual projects implementing Draft 2045 CAP measures are anticipated to be located primarily within the urban environments and on disturbed areas with existing infrastructure. These include a majority of the Draft 2045 CAP measures promoting transportation option, institutionalizing low-carbon transportation, promoting water conservation, and increasing renewable energy. However, some of the Draft 2045 CAP measures would promote implementation projects including transit routes, electric vehicle chargers, water recycling systems, solar energy generation facilities, and waste management facilities. Depending on the

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location of the implementing projects, construction could result in impacts on biological resources.

Location: Implementation of the Project would occur throughout unincorporated Los Angeles County in all General Plan, Community Plan, Area Plan, and zoning designations.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist DRP in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. The PEIR should provide adequate and complete disclosure of the Project's potential impacts on biological resources [Pub. Resources Code, § 21061; CEQA Guidelines, §§ 15003(i), 15151]. CDFW looks forward to commenting on the PEIR when it is available.

Specific Comments

- 1) Biological Resources Assessment for Individual Projects. CDFW recommends the PEIR include a requirement where projects implementing Draft 2045 CAP measures provide a biological resources assessment (see General Comment #3). A biological resources assessment should include a discussion of a project's potential impact on biological resources including, but not limited to, biological resources discussed in Comments #2 through 9 below. Based on the results of the biological resources assessment, a qualified biologist should prepare species- and site-specific measures to avoid, minimize, and/or mitigate for a project's potentially significant impacts on biological resources.
- 2) Biological Resources in the Antelope Valley. The Project could potentially result in installation of new solar energy generation facilities on County-owned land. Siting, construction, decommissioning, and operational activities associated with solar array installations, as well as transmission facilities, result in loss of native vegetation and habitat for wildlife (ICF 2019). CDFW is concerned that new solar energy generation facilities installed in the Antelope Valley region could result in significant habitat loss and impact special status, rare, and sensitive species of plants and wildlife, including (but not limited to) the following: Swainson's hawk (*Buteo swainsonii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), desert tortoise (*Gopherus agassizii*), burrowing owl (*Athene cunicularia*), western Joshua tree (*Yucca brevifolia*), and alkali mariposa lily (*Calochortus striatus*).
 - a) Analysis and Disclosure. As part of the PEIR's evaluation of the Project's impact on biological resources, CDFW recommends the PEIR provide a focused discussion on the Project's potential impact on biological resources in the Antelope Valley. At a minimum, the PEIR should discuss the Project's impact on focal species identified on Table 2-2 in the CDFW-approved final [Antelope Valley Regional Conservation Investment Strategy](#) (AVRCIS) (ICF 2019). The PEIR should also discuss the Project's impact on other conservation elements identified in the AVRCIS, which includes habitat connectivity, farmlands, rangelands, and natural communities.
 - b) Mitigation. CDFW recommends the PEIR include measures that require individual projects to mitigate for impacts on special status, rare, and sensitive species of plants

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and wildlife and natural communities in the AVRCIS area. Mitigation measures should be consistent with conservation strategies identified in the AVRCIS. If the DRP proposes in-lieu fees or a form of mitigation payment as mitigation, the PEIR should thoroughly discuss why DRP's proposal is adequate to mitigate for impacts to these biological resources. At a minimum, the PEIR should discuss the following: 1) how the fee/fund is designed to (and will) mitigate the effects at issue at a level meaningful for purposes of CEQA; 2) why the fee/fund is appropriate for mitigating the cumulative loss of habitat; 3) why the fee/fund is sufficient to purchase land or credits at a mitigation bank; 4) where land may be acquired or where credits may be purchased; 5) when fee/fund would occur/be used; and, 6) why the fee/fund would be adequate such that no impacts would occur/no net loss of habitat. Adequate disclosure is necessary to identify the nexus between the mitigation proposed and the impacts that may occur and allow CDFW to review and provide comments on the adequacy of the mitigation proposed.

- 3) Wildlife Corridors. The Project area may overlap with wildlife corridors and linkages identified in the [South Coast Missing Linkages Project](#) (SCW 2021). Some of these corridors such as the San Gabriel Castaic corridor have experienced some connectivity loss or is threatened due to development and transportation projects. Development including installation of solar energy generation facilities potentially proposed by the Project, especially on undeveloped County-owned land, could introduce new/additional barriers to dispersal and constrain wildlife corridors and pinch points leading to severed migration.
 - a) Analysis and Disclosure: The PEIR should discuss the Project's potential impact and cumulative impact on wildlife corridors. The PEIR should discuss impacts from the standpoint of the following: 1) introducing new/additional barriers to dispersal; 2) constraining wildlife corridors and pinch points leading to severed migration; 3) habitat loss, fragmentation, and encroachment; and 4) increased human presence, noise, and lighting.
 - b) Avoidance. The PEIR should include a measure whereby individual projects should first avoid impacts wildlife corridors through planning efforts to locate projects outside of wildlife corridors.
 - c) Mitigation. If avoidance is not feasible, CDFW recommends the PEIR include measures that require individual projects to provide compensatory mitigation for impacts on wildlife corridors. If the DRP proposes in-lieu fees or a form of mitigation payment as mitigation, the PEIR should thoroughly discuss why DRP's proposal is adequate to mitigate for impacts to these biological resources (see Comment #2b).

- 4) Impact on Mountain Lion (*Puma concolor*). Mountain lion occurs in the Project area. Installation of solar energy generation facilities potentially proposed by the Project, especially on undeveloped County-owned land, could impact mountain lion through habitat loss and fragmentation, as well as introduce new/additional barriers to mountain lion dispersal.
 - a) Protection Status: The mountain lion is a specially protected mammal in the State (Fish and G. Code, § 4800). In addition, on April 21, 2020, the California Fish and Game Commission accepted a petition to list the Southern California/Central Coast Evolutionary Significant Unit of mountain lion as threatened under CESA (CDFW 2020).

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As a CESA candidate species, the mountain lion in southern California is granted full protection of a threatened species under CESA.

- b) Analysis and Disclosure. The PEIR should discuss the Project's potential impact on mountain lion. The PEIR should discuss impacts from the standpoint of the following: 1) introducing new/additional barriers to dispersal; 2) constraining wildlife corridors and pinch points leading to severed migration; 3) habitat loss, fragmentation, and encroachment; and 4) increased human presence, noise, and lighting.
- c) Individual Project-Level Impact Assessment. CDFW recommends the PEIR include a measure that requires individual projects to evaluate impacts on mountain lion. Individual project-level evaluations should be supported by an analysis on mountain lion movement, territory size, and habitat use within and surrounding the project vicinity. CDFW recommends using wildlife cameras to aid in identification of areas that may be important to mountain lion movement.
- d) Avoidance and Mitigation. CDFW recommends avoidance and mitigation consistent with Comment #3b and 3c.
- e) Use of Rodenticides. CDFW recommends DRP prohibit all subsequent projects implementing Draft 2045 CAP measures from using any second generation anticoagulant rodenticides. Second generation anticoagulant rodenticides are known to have harmful effects on the ecosystem and wildlife. Assembly Bill 1788 prohibits the use of any second generation anticoagulant rodenticides because second generation anticoagulant rodenticides have a higher toxicity and are more dangerous to nontarget wildlife such as mountain lions, bobcats, foxes, and coyotes (California Legislative Information 2020).
- f) CESA. CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or CESA-listed plant species that results from a project is prohibited, except as authorized by State law (Fish & G. Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if a project and any project-related activity during the life of a project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the project proponent seek appropriate take authorization under CESA prior to implementing the project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a Consistency Determination in certain circumstances, among other options [Fish & Game Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to the project and mitigation measures may be required to obtain an ITP. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the project's CEQA document addresses all project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for an ITP.

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- 5) Woodlands. The Project area (unincorporated Los Angeles County) encompasses native woodlands that include (but are not limited to) California walnut groves (*Juglans californica* Woodland Alliance); oak woodlands (*Quercus* genus Woodland Alliance); California bay forest (*Umbellularia californica* Forest Alliance); California sycamore woodlands (*Platanus racemosa* Woodland Alliance); Fremont cottonwood forest (*Populus fremontii* Forest Alliance); and willow thickets (*Salix* Shrubland or Woodland Alliance).
- a) Sensitive Natural Communities. Natural communities, alliances, and associations with a State-wide rarity ranking of S1, S2, and S3 should be considered sensitive and declining at the local and regional level (see General Comment #3a). CDFW considers sensitive natural communities as threatened habitats having both regional and local significance.
- i. California walnut groves is a sensitive natural community with a rarity ranking of S3.2 (CDFW 2022a; Sawyer et al. 2009). California walnut groves are only found in southern California where this natural community has been significantly reduced due to urban development, type conversion, and agriculture.
 - ii. Some oak woodland alliances have a rarity ranking of S1, S2, or S3. While the coast live oak (*Quercus agrifolia* Woodland Alliance) has a rarity ranking of S4, some associations are rare (S1, S2, or S3) (Sawyer et al. 2009). Oak woodlands serve several important ecological functions such as protecting soils from erosion and land sliding, regulating water flow in watersheds, and maintaining water quality in streams and rivers. Oak woodlands also have higher levels of biodiversity than any other terrestrial ecosystem in California. Over 330 species of birds, mammals, reptiles, and amphibians depend on oak woodlands in California at some stage in their life cycle (CalPIF 2002). Moreover, oak woodlands are protected by the Oak Woodlands Conservation Act (pursuant under Fish and Game Code sections 1360-1372) and Public Resources Code section 21083.4 due to the historic and on-going loss of these resources. The percentage of oak woodlands that are developed in southern California is higher than in any other part of the State (Gaman and Firman 2006).
- b) Analysis and Disclosure. The PEIR should discuss the Project's potential impact on Sensitive Natural Communities occurring within the Project area. Natural community names should be provided in accordance with the [Manual of California Vegetation](#) (MCV), second edition (Sawyer et al. 2009).
- c) Avoidance. CDFW recommends the PEIR include measures that require individual projects to avoid impacts on sensitive natural communities. Mitigation may include avoiding impacts by establishing effective setbacks. If the DRP proposes buffers/setbacks as mitigation for all subsequent individual projects, the PEIR should provide justification for the effectiveness of chosen buffer/setback distances to avoid impacts on sensitive natural communities. An appropriate buffer/setback should avoid direct and indirect impacts on sensitive natural communities, allow for population connectivity and expansion, and protect processes supporting sensitive natural communities such as hydrological processes in the case of California walnut groves.
- d) Compensatory Mitigation. If avoidance is not feasible, the PEIR should require individual projects to provide compensatory mitigation for impacts on sensitive natural communities at no less than 2:1. DRP should require higher mitigation for project-level impacts on S1

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and S2-ranked natural communities and natural communities that are locally rare. Impacts due to fuel modification or trimming should also be mitigated as these impacts would result in permanent loss and perpetual impacts on habitat function and quality. There should be no-net loss of individual trees and habitat acres for California walnut groves and oak woodland. Mitigation should be provided for both individual trees and habitat acres. The replacement of individual trees is inadequate to mitigate for the loss of habitat.

- 6) Stream Delineation and Impact Assessment. The Project area (unincorporated Los Angeles County) encompasses many watersheds, rivers, waterbodies, and tributaries including (but not limited to) the Los Angeles River watershed, Northern Mojave River watershed, Ventura–San Gabriel Coastal watershed, Los Angeles River, Santa Clara River, San Gabriel River, Tujunga Creek, Castaic Creek, and desert dry washes in the Antelope Valley region.
- a) Fish and Game Code section 1600 et. seq. CDFW exercises its regulatory authority as provided by Fish and Game Code section 1600 et seq. to conserve fish and wildlife resources which includes rivers, streams, or lakes and associated natural communities.
 - b) Analysis and Disclosure. The PEIR should discuss the Project's potential impact on rivers, streams, or lakes¹ and associated natural communities. Impacts may include (but not limited to) the following: channelizing or diverting a stream; impairing a watercourse; Project-related activities causing erosion; removing vegetation adjacent to a water course; and degrading vegetation through habitat modification (e.g., loss of water source, encroachment, and edge effects leading to introduction of non-native plants). CDFW recommends the PEIR include a fine-scale stream delineation within the Project area to the extent feasible as part of the PEIR's evaluation of the Project's impact on rivers, streams, or lakes and a list of associated natural communities. Natural community names should be provided in accordance with the MCV, second edition (Sawyer et al. 2009).
 - c) Individual Project-Level Impact Assessment. CDFW recommends the PEIR include a measure that require individual projects to provide a stream delineation and evaluate impacts on any river, stream, or lake and associated natural communities. The delineation should be conducted pursuant to the U.S Fish and Wildlife Service's (USFWS) wetland definition adopted by CDFW (Cowardin et al. 1979). Be advised that some wetland and riparian habitats subject to CDFW's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers' Section 404 permit and Regional Water Quality Control Board Section 401 Certification.
 - d) Mitigation. CDFW recommends the PEIR include measures that require individual projects to mitigate for impacts on streams and associated natural communities. Mitigation may include avoiding impacts by establishing effective unobstructed vegetated buffers and setbacks adjoining streams and associated natural communities. If the DRP proposes buffers and setbacks as mitigation for all subsequent individual projects, the

¹ "Any river, stream, or lake" includes those that are dry for periods of time (ephemeral/episodic) as well as those that flow year-round (perennial). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a water body.

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PEIR should provide justification for the effectiveness of chosen buffer and setback distances to avoid impacts on the stream and associated natural communities. If avoidance is not feasible, the PEIR should require individual projects to provide compensatory mitigation for impacts on streams and associated natural communities at no less than 2:1. DRP should require higher mitigation for project-level impacts on sensitive natural communities (see General Comment #3a) and presence of rare, sensitive, or special status flora and fauna.

- e) Lake and Streambed Alteration (LSA) Agreement. As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream or use material from a streambed. For any such activities, CDFW recommends the PEIR include a measure that requires individual projects to notify CDFW pursuant to Fish and Game Code section 1602. CDFW should be notified prior to starting activities that may impact streams, and the project should obtain an LSA Agreement² prior to starting project activities. Please visit CDFW's [Lake and Streambed Alteration Program](#) webpage for more information (CDFW 2022b).
- 7) Water Recycling Systems. Some of the Draft 2045 CAP measures would promote implementation projects including water recycling systems. Water recycling systems that would capture and infiltrate local dry and wet season runoff would divert water from local watercourses. A reduction in dry and wet season flow could impact biological resources depending on the flow. Impacts on biological resources could occur in the immediate project area and downstream from the project area.
- a) Analysis and Disclosure. The PEIR should discuss the Project's potential impact of water recycling systems on watercourses and biological resources. The PEIR should provide information on the type(s) of water recycling systems that would be installed; where water recycling systems would be located in relation to rivers, streams, and lakes in the Project area; the approximate volume of water that would be captured and diverted resulting from the Project; and what biological resources could be impacted by water recycling systems.
- b) Individual Project-Level Impact Assessment. CDFW recommends the PEIR include a measure that requires individual projects resulting in water recycling systems to provide an analysis of impacts on flow and evaluate changes in flow and hydraulics on biological resources. An adequate analysis should provide the following information at a minimum: 1) an adequate study reach in order to analyze changes in flow in the immediate project area and downstream; 2) flow and hydraulics (e.g., water depth, wetted perimeter, and velocity) during the wet season (November through March), dry season (April through October), and both above-average and below-average water year (i.e., wet

² CDFW's issuance of a LSA Agreement for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the environmental document of the local jurisdiction (lead agency) for the project. To minimize additional requirements by CDFW pursuant to section 1600 et seq. and/or under CEQA, the environmental document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement.

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season/above-average water year, wet season/below-average water year, dry season/above-average water year, and dry season/below-average water year) under pre-project (i.e., baseline conditions) and post-project conditions; 3) percent changes in flow, water depth, wetted perimeter (acres gained/lost), and velocity (percent change) under project condition; 4) a list of sensitive and special status plant and wildlife species, including natural communities that could be impacted; and 5) project-related impacts on biological resources in relation to cumulative flow reductions. CDFW recommends such analysis and evaluation apply a [function flows approach](#) to evaluate impacts on biological resources. The functional flows approach provides the basis for guidance provided in the [California Environmental Flows Framework](#) (UC Davis 2022). Functional flows are distinct aspects of a natural flow regime that sustain ecological, geomorphic, or biogeochemical functions, and that support the specific life history and habitat needs of native aquatic species. Retaining key functional flow components in managed flow regimes is thus expected to support foundational physical and ecological processes that sustain biological communities

- c) Mitigation. CDFW recommends the PEIR include measures that require individual projects to mitigate for impacts on biological resources resulting from water recycling systems. Mitigation may include notifying CDFW and obtaining an LSA Agreement pursuant to Fish and Game Code section 1602 (see Comment #6).
- 8) Nesting Birds. Individual projects implementing Draft 2045 CAP measures that would require vegetation removal and/or disturbance could impact nesting birds. Construction could create elevated levels of noise, human activity, dust, ground vibrations, and vegetation disturbance. These activities occurring near potential nests could cause birds to abandon their nests and a decrease in feeding frequency, both resulting in the loss of fertile eggs or nestlings.
- a) Protection Status. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor.
- b) Analysis and Disclosure. The PEIR should discuss the Project's potential impact on nesting birds and raptors. A discussion of potential impacts should include impacts that could occur during construction, ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating), and vegetation removal associated with implementation of individual projects.
- c) Avoidance. CDFW recommends that the PEIR include measures that require individual projects to fully avoid impacts on nesting birds and raptors. To the extent feasible, no construction, ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating), and vegetation removal should occur during the avian breeding season which generally runs from February 15 through September 15 (as early as January 1 for some raptors) to avoid take of birds, raptors, or their eggs.
- d) Minimizing Potential Impacts. If impacts on nesting birds and raptors cannot be avoided, CDFW recommends the PEIR include measures that require individual projects to

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minimize impacts on nesting birds and raptors during implementation of individual projects. Prior to starting ground-disturbing activities and vegetation removal, CDFW recommends a qualified biologist conduct nesting bird and raptor surveys to identify nests. The qualified biologist should establish no-disturbance buffers to minimize impacts on those nests. CDFW recommends a minimum 300-foot no-disturbance buffer around active bird nests. For raptors, the no-disturbance buffer should be expanded to 500 feet and 0.5 mile for special status species, if feasible. Personnel working on a project, including all contractors working on site, should be instructed on the presence of nesting birds, area sensitivity, and adherence to no-disturbance buffers. Reductions in the buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors determined by a qualified biologist.

- 9) Bats. Numerous bat species are known to roost in trees and structures throughout Los Angeles County. Individual projects implementing Draft 2045 CAP measures that would require removal and/or disturbance of vegetation and other potential roosting structures could impact bats. Removal of trees, vegetation, and/or structures supporting roosting bats could result in injury and/or mortality of bats, as well as loss of roosting habitat. Bats and roosts could also be impacted by increased noise, human activity, dust, and ground vibrations during construction and ground-disturbing activities.
 - a) Protection Status. Bats are considered non-game mammals and are afforded protection by State law from take and/or harassment (Fish & G. Code, § 4150; Cal. Code of Regs., § 251.1). In addition, some bats are considered California Species of Special Concern (SSC). CEQA provides protection not only for CESA-listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. These SSC meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Take of SSC could require a mandatory finding of significance (CEQA Guidelines, § 15065).
 - b) Analysis and Disclosure. The PEIR should discuss the Project's potential impact on bats and habitat supporting roosting bats. A discussion of potential impacts should include impacts that may occur during Project construction, ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating), and vegetation removal.
 - c) Avoidance and Minimization. CDFW recommends that the PEIR include measures that require individual projects to avoid and/or minimize impacts on bats during implementation of individual projects. Prior to project implementation, CDFW recommends that DRP require individual projects to retain a qualified bat specialist to identify potential daytime, nighttime, wintering, and hibernation roost sites within the project site, and conduct bat surveys within these areas (plus a 100-foot buffer as access allows) to identify roosting bats and any maternity roosts. CDFW recommends using acoustic recognition technology to maximize detection of bats. The PEIR should incorporate mitigation measures in accordance with [California Bat Mitigation Measures](#) (Johnston et al. 2004).

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General Comments

- 1) Disclosure. The PEIR should provide an adequate, complete, and detailed disclosure about the effect which the proposed Project is likely to have on the environment (Pub. Resources Code, § 20161; CEQA Guidelines, § 15151). Adequate disclosure is necessary so CDFW may provide comments on the adequacy of proposed avoidance, minimization, or mitigation measures, as well as to assess the significance of the specific impact relative to plant and wildlife species impacted (e.g., current range, distribution, population trends, and connectivity).
- 2) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in a project through the use of feasible alternatives or mitigation measures [CEQA Guidelines, §§ 15002(a)(3), 15021]. Pursuant to CEQA Guidelines section 15126.4, an environmental document “shall describe feasible measures which could mitigate for impacts below a significant level under CEQA.”
 - a) Level of Detail. Mitigation measures must be feasible, effective, implemented, and fully enforceable/imposed by the lead agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, § 15126.4). A public agency “shall provide the measures that are fully enforceable through permit conditions, agreements, or other measures” (Pub. Resources Code, § 21081.6). CDFW recommends DRP provide mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).
 - b) Disclosure of Impacts. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the proposed Project, the PEIR should include a discussion of the effects of proposed mitigation measures [CEQA Guidelines, § 15126.4(a)(1)]. In that regard, the PEIR should provide an adequate, complete, and detailed disclosure about the Project’s proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.
- 3) Biological Baseline Assessment. An adequate biological resources assessment should provide a complete assessment and impact analysis of the flora and fauna within and adjacent to the Project area and where the Project may result in ground disturbance. The assessment and analysis should place emphasis on identifying endangered, threatened, rare, and sensitive species; regionally and locally unique species; and sensitive habitats. An impact analysis will aid in determining the Project’s potential direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW also considers impacts to an SSC a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. The PEIR should include the following information:
 - a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. The PEIR should include measures to fully avoid and otherwise

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protect Sensitive Natural Communities. CDFW considers Sensitive Natural Communities as threatened habitats having both regional and local significance. Natural communities, alliances, and associations with a State-wide rarity ranking of S1, S2, and S3 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting the [Vegetation Classification and Mapping Program - Natural Communities](#) webpage (CDFW 2022a);

- b) A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's [Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#) (CDFW 2018). Adjoining habitat areas should be included where the Project's construction and activities could lead to direct or indirect impacts off site;
- c) Floristic alliance- and/or association-based mapping and vegetation impact assessments conducted in the Project area and within adjacent areas. The [Manual of California Vegetation](#), second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2009). Adjoining habitat areas should be included in this assessment where the Project's construction and activities could lead to direct or indirect impacts off site;
- d) A complete and recent assessment of the biological resources associated with each habitat type in the Project area and within adjacent areas. CDFW's [California Natural Diversity Database](#) in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat (CDFW 2022c). An assessment should include a minimum nine-quadrangle search of the CNDDDB to determine a list of species potentially present in the Project area. A lack of records in the CNDDDB does not mean that rare, threatened, or endangered plants and wildlife do not occur. Field verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review [CEQA Guidelines, § 15003(i)];
- e) A complete, recent, assessment of endangered, rare, or threatened species and other sensitive species within the Project area and adjacent areas, including SSC and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of the Project area should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's [Survey and Monitoring Protocols and Guidelines](#) for established survey protocol for select species (CDFW 2022d). Acceptable species-specific survey procedures may be developed in consultation with CDFW and USFWS; and,
- f) A recent wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if Project implementation build out could occur over a protracted time frame

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or in phases.

- 4) Biological Direct, Indirect, and Cumulative Impacts. The PEIR should provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources with specific measures to offset such impacts. The PEIR should address the following:
 - a) A discussion regarding Project-related indirect impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands [e.g., preserve lands associated with a Natural Community Conservation Plan (Fish & G. Code, § 2800 et. seq.)]. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in areas adjacent to the Project, should be fully analyzed and discussed in the PEIR;
 - b) A discussion of both the short-term and long-term effects of the Project on species population distribution and concentration, as well as alterations of the ecosystem supporting those species impacted [CEQA Guidelines, § 15126.2(a)];
 - c) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures;
 - d) A discussion of post-Project fate of drainage patterns, surface flows, and soil erosion and/or sedimentation in streams and water bodies. The discussion should also address the potential water extraction activities and the potential resulting impacts on habitat (if any) supported by the groundwater. Measures to mitigate such impacts should be included;
 - e) An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the PEIR; and,
 - f) A cumulative effects analysis as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant and wildlife species, habitat, and natural communities. If DRP determines that the Project would not have a cumulative impact, the PEIR should indicate why the cumulative impact is not significant. DRP's determination should be supported by facts and analyses [CEQA Guidelines, § 15130(a)(2)].
- 5) Project Description and Alternatives. To enable adequate review and comment on the proposed Project from the standpoint of the protection of fish, wildlife, and plants, CDFW recommends the following information be included in the PEIR:
 - a) A complete discussion of the purpose and need for, and description of the proposed Project;

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- b) Pursuant to CEQA Guidelines section 15126.6(a), an environmental document “shall describe a reasonable range of potentially feasible alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project.” CEQA Guidelines section 15126.6(f)(2) states if the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion; and,
- c) A range of feasible alternatives to the Project location to avoid or otherwise minimize direct and indirect impacts on sensitive biological resources and wildlife movement areas. CDFW recommends DRP select Project designs and alternatives that would avoid or otherwise minimize direct and indirect impacts on biological resources. CDFW also recommends DRP consider establishing appropriate setbacks from sensitive and special status biological resources. Setbacks should not be impacted by ground disturbance or hydrological changes from any future Project-related construction, activities, maintenance, and development. As a general rule, CDFW recommends reducing or clustering a development footprint to retain unobstructed spaces for vegetation and wildlife and provide connections for wildlife between properties and minimize obstacles to open space.

Project alternatives should be thoroughly evaluated, even if an alternative would impede, to some degree, the attainment of the Project objectives or would be more costly (CEQA Guidelines, § 15126.6). The PEIR “shall” include sufficient information about each alternative to allow meaningful evaluation, public participation, analysis, and comparison with the proposed Project (CEQA Guidelines, § 15126.6).

- d) Where the Project may impact aquatic and riparian resources, CDFW recommends DRP select Project designs and alternatives that would fully avoid impacts to such resources. CDFW also recommends an alternative that would not impede, alter, or otherwise modify existing surface flow, watercourse and meander, and water-dependent ecosystems and natural communities. Project designs should consider elevated crossings to avoid channelizing or narrowing of watercourses. Any modifications to a river, creek, or stream may cause or magnify upstream bank erosion, channel incision, and drop in water level and cause the watercourse to alter its course of flow.
- 6) Data. CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected by completing and submitting [CNDDDB Field Survey Forms](#) (CDFW 2022e). To submit information on special status native plant populations and sensitive natural communities, the [Combined Rapid Assessment and Releve Form](#) should be completed and submitted to CDFW’s Vegetation Classification and Mapping Program (CDFW 2022f). DRP should ensure data collected for the preparation of the PEIR be properly submitted, with all data fields applicable filled out.
- 7) Use of Native Plants and Trees. CDFW supports the use of native plants for any project proposing revegetation and landscaping. CDFW strongly recommends avoiding non-native, invasive plants for landscaping and restoration, particularly any species listed as ‘Moderate’

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or 'High' by the [California Invasive Plant Council](#) (Cal-IPC 2022). CDFW supports the use of native species found in naturally occurring plant communities within or adjacent to the Project area. In addition, CDFW supports planting species of trees, such as oaks (*Quercus* genus), and understory vegetation (e.g., ground cover, subshrubs, and shrubs) that create habitat and provide a food source for birds. CDFW recommends retaining any standing, dead, or dying tree (snags) where possible because snags provide perching and nesting habitat for birds and raptors. Finally, CDFW supports planting species of vegetation with high insect and pollinator value.

- 8) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of removing plants and wildlife from one location and permanently moving it to a new location. CDFW generally does not support the use of translocation or transplantation as the primary mitigation strategy for unavoidable impacts to endangered, rare, or threatened plants and animals. Studies have shown that these efforts are experimental and the outcome unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving plants and animals and their habitats.
- 9) Compensatory Mitigation. The PEIR should include compensatory mitigation measures for the Project's significant direct and indirect impacts to sensitive and special status plants, animals, and habitats. Mitigation measures should emphasize avoidance and minimization of Project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore inadequate to mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement and financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code, section 65967, the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.
- 10) Long-term Management of Mitigation Lands. For proposed preservation and/or restoration, the PEIR should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.
- 11) Wetland Resources. CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and Game Commission's (Commission) policies. The [Wetlands Resources](#) policy the Commission "...seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California" (CFGF 2020). Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum,

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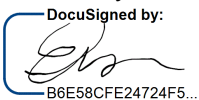
project mitigation assures there will be ‘no net loss’ of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values.”

- a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, a project should include mitigation measures to assure a “no net loss” of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions benefiting local and transient wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in the PEIR and these measures should compensate for the loss of function and value.
- b) The Fish and Game Commission’s Water policy guides CDFW on the quantity and quality of the waters of this State that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this State; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife. CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & G. Code, § 5650).

Conclusion

We appreciate the opportunity to comment on the NOP for the Los Angeles County 2045 Climate Action Plan to assist the Los Angeles County Department of Regional Planning in preparing the Project’s environmental document and identifying and mitigating the Project’s potential impacts on biological resources. If you have any questions or comments regarding this letter, please contact Ruby Kwan-Davis, Senior Environmental Scientist (Specialist), at Ruby.Kwan-Davis@wildlife.ca.gov or (562) 619-2230.

Sincerely,

DocuSigned by:

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February 1, 2022

Dear LA County Board of Supervisors:

On behalf of the County's independent oil and natural gas producers and the thousands of essential oil and gas workers who work and live here, the California Independent Petroleum Association is submitting these comments outlining our serious concerns regarding the draft Climate Action Plan (CAP). In its current form, the CAP would not only have severe impacts on the region's economy and industries that support good paying labor jobs, but would also have unintended consequences on our most underserved and vulnerable communities. We urge you to reject any actions that would increase energy prices and imported resources, destabilize the region's energy reliability, or eliminate local living wage jobs.

The County of Los Angeles continues to be the epicenter of our nation's affordability and homelessness crises. The cost of everyday necessities like housing, childcare and transportation are crushing working families. As it stands, California has the highest-in-the-nation gas prices at nearly \$5 per gallon and our nation is facing inflation rates we have not seen in 40 years.

The Los Angeles County Department of Regional Planning (DRP) has released its Notice of Preparation and Initial Study for its draft CAP. Under Strategy 1, Measure CL 1 would develop a sunset strategy for all oil and gas operations. In its Initial Study, the applicant (DRP) does not address the potentially significant environmental impacts to energy, population/housing and land use/planning. In addition, as we continue to address inequity, it seems short-sighted to not include the scope of "quality of life and workforce impacts" as part of its environmental analysis.

This Initial Study does not address the energy dependence and instability caused to the County by shutting down local production. As noted before, we continue to have serious concerns that this recommendation will put millions of Angelenos' access to affordable and reliable energy at risk. A shutdown of local oil and gas production will increase the region's dependency on expensive foreign oil imports from regimes that do not hire Angelenos, pay California taxes or operate under our stringent environmental, safety and labor standards. The truth is that despite having enormous energy resources in the County and the State, California is now more

dependent than ever on imported foreign energy. Our state imports more than 60% of its crude oil consumption from foreign sources – a 1,200% increase since the 1980s.

In 2018, Californians sent \$24 billion to foreign countries to pay for imported oil. That figure will increase if the County shuts down local production. In fact, what we have learned from our current health pandemic is that we must ensure we can deliver daily necessities across industrial sectors, including energy, to avoid shortages that can quickly become life-threatening. Further curtailing oil and gas production in the County would leave the County and the State completely beholden to foreign countries that do not share our same environmental, labor and safety protections to meet our energy needs.

These foreign imports would deprive us of the local economic benefits generated by utilizing nearby energy sources and would also add to our deteriorating air quality. As noted by the *Los Angeles Times* Editorial Board during the start of the supply chain crisis, “The ports of Los Angeles and Long Beach are the single latest source of pollution in the nation’s smoggiest area. The communities around the ports have the highest cancer risk from air pollution in the region...And air quality has been getting worse, not better, in recent years.”

Banning production statewide would translate into an additional 160 million barrels of oil imports to California annually. At minimum, that would require an additional 80 oil tankers to unnecessarily traverse the planet and idle in Southern California ports, adding to our region’s air pollution.

In addition to the environmental impacts, an analysis released by the State Building and Construction Trades Council of California earlier this year found that gas prices would increase by a minimum of \$1.70 per gallon under a statewide shutdown. Gas prices could soar to \$10 or more per gallon if foreign supply challenges emerge after production shutdowns are implemented. Global energy markets are currently facing turmoil thanks to concerns that Russia may invade Ukraine. Markets were also recently rattled by attacks on tankers exiting the Middle East as well as delays caused by blocked shipping routes.

Lastly, the County’s Sustainability Office still has not performed a much needed data-based study/report on the County’s resiliency or lack thereof. The County should have a data-driven understanding of its ability to produce and deliver food, water, energy, medicine, building materials, transportation and daily necessities to 10 million County residents in good times and during disasters. We continue to highlight the need for staff to measure strategies against resiliency and the County’s ability to recover from unforeseen circumstances. As already mentioned, without local production of oil and gas, the region will become solely dependent on foreign crude oil, which during times of crisis is not dependable and leaves Angelenos vulnerable to price spikes or supply disruptions at the whim of foreign countries. We are seeing firsthand the inflation rates that disproportionately impact disadvantaged communities and communities of color.

The Board of Supervisors unanimously recognized the importance of resiliency in its motion of August 13, 2019. Noting the need for “further analysis of the resiliency of the County’s energy supply against natural disasters, international turmoil, power outages, cyber-attacks, transportation disruptions and price spikes,” the Board required a report on “both the current status of resiliency of the County’s energy supply and infrastructure and ... the potential ... impacts of decarbonization.” The study that was generated by the Chief Sustainability Office was a “literature review” without any substantive analysis and research. Given the multiple and widespread infrastructure and supply chain failures we have seen just in the last couple of years during this unprecedented global pandemic, it is more vital than ever to ensure that the County takes resiliency and crisis planning into consideration as part of its environmental analysis.

We recognize that California is transitioning its energy economy, but the County cannot allow energy policies to jump ahead of its energy reality and consumption. California still demands massive amounts of oil – and will for decades to come – to fuel transportation, provide reliable electricity to the grid, grow and transport food, power businesses that provide jobs, and produce thousands of consumer products that make our lives possible. To jump ahead of reality means eliminating thousands of high-skilled labor jobs and ignoring the environmental impact of import logistics, all while everyday Angelenos still recovering from the pandemic bear the burden of an inevitable increase in costs.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rock Zierman', with a stylized flourish extending to the right.

Rock Zierman
Chief Executive Officer, CIPA



February 1, 2022

Sent via email

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
climate@planning.lacounty.gov

Re: Comments on Notice of Preparation of a Program Environmental Impact Report for the Los Angeles County 2045 Climate Action Plan

Dear Department of Regional Planning:

The Center for Biological Diversity (“Center”) submits the following comments on the Notice of Preparation (“NOP”) of a Program Environmental Impact Report (“PEIR”) for the Los Angeles County 2045 Climate Action Plan (“CAP”). The Center submitted comments on an earlier version of the draft CAP on April 30, 2020 (the “April 2020 Letter”), which is attached here as Exhibit 1. We hereby incorporate the comments in the April 2020 Letter by reference and request that the issues raised in that letter be considered in preparing the Draft EIR and revised CAP. We appreciate that the upcoming draft of the CAP will include “more clear, specific, feasible, and quantifiable” greenhouse gas (“GHG”) reduction strategies, as we requested in the April 2020 Letter.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County (“County”).

I. The Draft PEIR and CAP Should Explain How It is Consistent with Statewide Goals.

CEQA Guidelines section 15183.5(b)(1)(D) require that a climate action plan demonstrate that it will achieve planned reductions on a project by project basis. In *Cleveland National Forest Foundation v. San Diego Association of Governments*, the California Supreme Court provided more clarity on what facts, data, and goals projects should analyze in their greenhouse gas analyses under CEQA. ((2017) 3 Cal.5th 497.) The Court found that although an “Executive Order ‘is not an adopted GHG reduction plan’ and that ‘there is no legal requirement to use it as a threshold of significance[,]’ ... [t]he Executive Order’s 2050 goal of reducing California’s greenhouse gas emissions to 80 percent below 1990 levels expresses the pace and magnitude of reduction efforts that the scientific community believes necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project like SANDAG’s regional transportation plan.” (*Id.* at 515-516.) Therefore, the Draft CAP should include further discussion on measures that could ensure the County meets statewide goals, including in the Scoping Plan published by California Air Resources Board (“CARB”) and in executive orders on GHGs.

II. The Draft PEIR and CAP Should Include Binding and Enforceable Measures.

We appreciate that the County intends that the Draft PEIR and CAP include “more clear, specific, feasible, and quantifiable” GHG reduction strategies. We look forward to reviewing these strategies in the Draft PEIR and CAP and proposing recommendations to further improve and refine them. As outlined in the Draft CAP, a CAP must “[s]pecify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level...” (Draft CAP at 15.) We again caution that the Draft CAP should not include non-binding language in its mitigation measures (e.g., “encourage,” “promote,” “support” or “whenever feasible”).

The Draft PEIR and CAP should also include evidence describing how they will include sufficient funding and staff to carry out the programs and mitigation strategies included in the Draft PEIR and CAP. (See, e.g., *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116-1118 [EIR invalid because agency offered no evidence that measures for reducing impacts would actually be effective].)

III. The Draft PEIR and CAP Should Demonstrate How They Are Consistent with the LA County Sustainability Plan.

CEQA requires that EIRs disclose and discuss the project or program’s inconsistencies with an applicable regional plan, such as a habitat conservation plan or natural community conservation plan. (CEQA Guidelines § 15125(d); 1 Kostka & Zischke, Practice Under the Cal. Env. Quality Act (2d ed. 2015) § 6.56, p. 6-60.1.) The EIR should thus include a detailed analysis of the CAP’s consistency with the LA County Sustainability Plan, including how the CAP meets or exceeds the Goals, Strategies, Targets, and Actions set forth in the Plan.

IV. The Draft PEIR and CAP Should Include Strategies to Substantially Reduce VMT.

As noted in our April 2020 Letter, the CAP and Draft PEIR should include robust strategies to significantly reduce vehicle miles travelled (“VMT”) within LA County region and consider measures proposed by CARB including within the Scoping Plan. Such strategies should include limiting new large-scale development in areas that generate disproportionately high levels of VMT, including areas far from existing job centers. Consistent with the policies in the Draft LA County Safety Element, the CAP and Draft PEIR should reiterate that new subdivisions in very high fire hazard severity zones are prohibited and inconsistent with the CAP or the LA County General Plan.

V. The Draft PEIR and CAP Should Include Robust Strategies to Achieve Zero Net Energy for All New Development.

As outlined in the April 2020 Letter, the CAP offers LA County an opportunity become a leader in setting standards on requiring zero net energy (“ZNE”) for new (and existing) development. The Draft PEIR and CAP should require zero net energy on all new commercial and residential construction. ZNE is feasible, as other projects in the County have recently been approved include a goal of zero net GHGs.¹ The Draft PEIR and CAP should include a ZNE Program that establishes clear standards for meeting ZNE for various sizes of commercial and residential development, and pair such standards with County programs to dramatically increase ZNE infrastructure including free or low-cost EV chargers throughout the county.

Consistent with statewide goals² on ZNE buildings, the Draft PEIR and CAP should include plans, incentives, and programs to retrofit at least 50 percent of commercial buildings to ZNE by 2030. This could include a crediting system to incentivize the retrofitting of existing commercial and residential developments with EV chargers and other ZNE infrastructure.

VI. The Draft PEIR and CAP Should Include Strategies to Increase Energy Resilience.

The Center supports the Draft CAP’s goal to shift to a renewables-based electricity supply which ensures equitable access to affordable, local, and reliable energy sources. However, the Draft PEIR and CAP should include far more ambitious strategies to increase energy resilience through the widespread adoption of renewable energy. While the April 2020 Letter cites studies demonstrating the feasibility of distributed energy resources, the even more recent results of National Renewable Energy Laboratory (“NREL”)’s Los Angeles 100% Renewable Energy Study (“LA100”)³ further demonstrate that achieving 100 percent reliable renewable energy is feasible in the near-term (e.g., by 2035).

¹ See California Department of Fish and Wildlife, *Newhall Ranch Resource and Development Management and Development Plan, Final Additional Environmental Analysis*, Appendix 2.1, available at http://planning.lacounty.gov/assets/upl/case/tr_53108_appendix-2-0-cdfw-final-aea-excerpts.pdf.

² California Public Utilities Commission, *Zero Net Energy*, available at <https://www.cpuc.ca.gov/ZNE/>.

³ The full report is available here: <https://maps.nrel.gov/la100/report>.

The Draft PEIR and CAP should also include a program or ordinance to fund and facilitate photovoltaic energy and storage, including through microgrid development, especially for unincorporated and fire-prone areas.

VII. Conclusion

Thank you for the opportunity to submit comments on the NOP. We look forward to reviewing the analysis and mitigation strategies in the Draft PEIR and CAP and proposing suggestions to refine and strengthen them. We also are happy to meet with County Planning staff to discuss any of the recommendations in this letter or the April 2020 Letter.

Sincerely,



J.P. Rose
Senior Attorney
Center for Biological Diversity
660 S. Figueroa Street, Suite 1000
Los Angeles, California, 90017
jrose@biologicaldiversity.org

Exhibit 1



April 30, 2020

Sent via email

Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012
climate@planning.lacounty.gov

Re: Comments on Public Review Draft of Los Angeles County Climate Action Plan

Dear Department of Regional Planning:

The Center for Biological Diversity (“Center”) submits the following comments on the Los Angeles County Climate Action Plan Public Review Draft (“Draft CAP”). While the Draft CAP includes some laudable goals, it suffers from a lack of clear and enforceable measures to ensure significant reductions in regional greenhouse gas (“GHG”) emissions. Many of our concerns were also reflected in our comments on the Draft Sustainability Plan, which is included as Attachment 1 and incorporated by reference.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County (“County”).

I. Climate Change Is an Urgent and Existential Concern.

Recent science has made clear that human-caused climate change is causing widespread harms to human society and natural systems, and climate change threats are becoming increasingly dangerous. In its 2018 *Special Report on Global Warming of 1.5°C*, the Intergovernmental Panel on Climate Change (“IPCC”)—the leading international scientific body for the assessment of climate change—describes the devastating harms that would occur at 2°C warming. The report highlights the necessity of limiting warming to 1.5°C to avoid catastrophic impacts to people and life on Earth (IPCC 2018). The report also provides overwhelming evidence that climate hazards are more urgent and more severe than previously thought, and that aggressive reductions in emissions within the next decade are essential to avoid the most devastating climate change harms.

The impacts of climate change are already being felt by humans and wildlife. Thousands of studies conducted by researchers around the world have documented changes in surface, atmospheric, and oceanic temperatures; melting glaciers; diminishing snow cover; shrinking sea ice; rising sea levels; ocean acidification; and increasing atmospheric water vapor (USGCRP 2017). In California, climate change will transform our climate, resulting in impacts including, but not limited to, increased temperatures and wildfires and a reduction in snowpack and precipitation levels and water availability.

II. The County Has a Responsibility to Reduce GHG Emissions.

California gives local authorities like the County significant responsibility over land use and planning decisions within their jurisdictions. But with that responsibility comes a corresponding obligation to account for the negative environmental impacts of those decisions—especially when it comes to controlling GHG emissions. As the California Air Resources Board (“CARB”) explains:

Local governments are essential partners in achieving California’s goals to reduce GHG emissions. Local governments can implement GHG emissions reduction strategies to address local conditions and issues and can effectively engage citizens at the local level. Local governments also have broad jurisdiction, and sometimes unique authorities, through their community-scale planning and permitting processes, discretionary actions, local codes and ordinances, outreach and education efforts, and municipal operations. Further, local jurisdictions can develop new and innovative approaches to reduce GHG emissions that can then be adopted elsewhere.

(CARB 2017.) California’s Scoping Plan, which lays out the statewide blueprint for meeting the legislature’s greenhouse gas reduction targets, also specifically calls out local governments as essential to meeting these targets:

[L]ocal governments and agencies are critical leaders in reducing emissions through actions that reduce demand for electricity, transportation fuels, and natural gas, and improved natural and working lands management. . . . Over the last 60 years, development patterns have led to sprawling suburban neighborhoods, a vast highway system, growth in automobile ownership, and under-prioritization of infrastructure for public transit and active transportation. Local decisions about these policies today can establish a more sustainable built environment for the future.

(CARB 2017.) Thus, the County must take seriously its obligation to do its utmost to ensure that it is reducing GHG emissions and contributing to the state’s achievement of its emissions reduction targets.

III. The Draft CAP Fails to Explain How It Will Meet State Goals.

While the Draft CAP acknowledges statewide climate goals (Draft CAP at 6-8 & 36), it does not explain how measures in the Draft CAP will actually meet these statewide climate goals. For instance, statewide targets require GHG emissions to be reduced to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and achieve statewide carbon neutrality by 2045. (Draft CAP at 17 & 36.)

In contrast, the Draft CAP includes a different set of goals: by 2025, reduce GHG emissions by 25 percent below 2015 levels; by 2035, reduce GHG emissions by 50 percent below 2015 levels; and by 2045, achieve carbon neutrality in unincorporated Los Angeles County. (Draft CAP at 8.) The Draft CAP fails to explain how these goals are either consistent or inconsistent with each of the statewide goals.

The Draft CAP therefore does not qualify as a CEQA “streamlining” document. CEQA Guidelines section 15183.5(b)(1)(D) require that a climate action plan demonstrate that it will achieve planned reductions on a project by project basis. In *Cleveland National Forest Foundation v. San Diego Association of Governments*, the California Supreme Court provided more clarity on what facts, data, and goals projects should analyze in their greenhouse gas analyses under CEQA. ((2017) 3 Cal.5th 497.) The Court found that although an “Executive Order ‘is not an adopted GHG reduction plan’ and that ‘there is no legal requirement to use it as a threshold of significance[,]’ ... [t]he Executive Order’s 2050 goal of reducing California’s greenhouse gas emissions to 80 percent below 1990 levels expresses the pace and magnitude of reduction efforts that the scientific community believes necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project like SANDAG’s regional transportation plan.” (*Id.* at 515-516.) Therefore, the Draft CAP should include further discussion on measures that could ensure the County meets statewide goals.

IV. The Draft CAP’s GHG Emissions Inventory Is Incomplete.

The Draft CAP lists five categories of GHG emissions in its GHG inventory: transportation, stationary energy, waste, industrial processes and product use (“IPPU”), and agriculture, forestry and, other land use (“AFOLU”). (Draft CAP at 30-32.) The CAP should set forth the emissions categories in more detail. A guide prepared by the Bay Area Air Quality Management District (“BAAQMD”) recommends, for example, listing the GHG emissions of specific items such as streetlights and traffic signals. (BAAQMD 2009.)

The Draft CAP also does not explain whether “transportation” emissions include emissions outside the County by activity within the County (for example, from exported goods or tourist travel to County from outside the County). This very shortcoming led to a judge invalidating Sonoma County’s CAP last year, after the judge determined that it failed to account for all of the County’s emissions by excluding transboundary emissions.¹ (Attachment 2.)

¹ The court also held that the CAP’s GHG reduction measures were not clearly defined or enforceable, which is also an issue with the Draft CAP here.

V. The Draft CAP's Reduction Strategies and Measures Are Non-Binding And Unenforceable.

The Draft CAP states that if future projects “tier” off of it, then compliance will negate the need for a qualitative analysis of future projects’ GHG emissions. (Draft CAP at 15.) The Draft CAP also correctly lays out the legal requirements of a climate action plan. (Draft CAP at 15.) For instance, a CAP must “Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level....” (Draft CAP at 15.) Therefore, the Final CAP, and any such plan prepared pursuant to CEQA Guidelines 15183.5, must meet the requirements for all first-tier environmental review documents and thus must impose enforceable requirements and measures with defined performance standards.²

Unfortunately, many of the Draft CAP’s reduction measures are largely non-binding and unenforceable, and generally lack performance standards. Notably, the words “encourage,” “promote,” “support” or “whenever feasible” occur many times in the sections describing the Draft CAP’s implementation measures. These measures are legally inadequate and cannot be considered mitigation under CEQA and applicable case law. (*Lincoln Place Tenants Assn. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 445 [“A ‘mitigation measure’ is a suggestion or change that would reduce or minimize significant adverse impacts on the environment caused by the project as proposed”]); *Preserve Wild Santee v. City of Santee* (2012) 210 CA 4th 260, 281 [mitigation measures that are so undefined that their effectiveness is impossible to determine are legally inadequate].) The California Attorney General has also expressly disapproved such an approach for measures upon which an agency relies:

Can a lead agency rely on policies and measures that simply “encourage” GHG efficiency and emissions reductions?

No. Mitigation measures must be “fully enforceable.” *Adequate mitigation does not, for example, merely “encourage” or “support” carpools and transit options, green building practices, and development in urban centers.* While a menu of hortatory GHG policies is positive, it does not count as adequate mitigation because there is no certainty that the policies will be implemented.

(CA Attorney General 2009.) The California Attorney General further states that programmatic plans to reduce GHG emissions pursuant to CEQA Guidelines section 15183.5 must “[i]dentify a set of specific, enforceable measures that, collectively, will achieve the emissions targets....” (CA Attorney General 2019.)

In *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, the Fourth District Court of Appeal criticized the County of San Diego for including measures in its CAP that were not backed up by a firm commitment by the County that they would be implemented. The Court noted that many of the measures in the CAP “are not currently funded,” such that the County of San Diego could not rely upon such unfunded programs to meet GHG reductions. (*Id.* at 1168-

² Specifically, CEQA Guidelines section 15183.5(b)(1)(D) states that measures should have “performance standards” which demonstrate they will achieve the planned reductions on a project by project basis.

1169.) The *Sierra Club* opinion also questioned whether people would actually participate in various programs outlined in the CAP, given that the record contained no evidence of such participation. (*Id.* at 1170.) Here, the Draft CAP suffers from similar defects – there is no evidence of funding for many of the various programs set forth in the Final CAP, nor evidence in the record that people or industry will actually participate in the voluntary programs described in the Draft CAP.

Accordingly, although the Draft CAP’s reduction measures may generally be worthwhile objectives for the County to pursue, the Draft CAP fails as a CEQA compliance tool because it relies upon non-enforceable measures. The Draft CAP also does not have adequate mechanisms to monitor progress towards achieving verifiable reduction targets.

VI. Strategy 2 Fails to Include Sufficient Measures to Support Transit Oriented Communities.

The Center generally supports the goals of Strategy 2 to support transit oriented communities. However, the targets are unclear, inadequate, and do not provide a path to actually achieve this goal. For instance, the 2025 target is to (1) “increase new housing built within 1/2 mile of high frequency transit to 50%” and (2) “reduce VMT per capita to 20 miles.” This target does not specify what the “50%” is a percent of – does this mean 50% of all new housing units in the County? This needs to be clarified in the Final CAP. In addition, it is unclear whether the County is intending to reduce VMT per capita to 20 miles *per day* or some other amount of time. More importantly, VMT per capita of 20 miles a day is still an extremely high number; the CAP should have more aggressive goals to reduce VMT per capita by 2025. As described in further detail in our comment letter on the Draft Sustainability Plan, significant reductions in VMT are required if the state is to meet its GHG reduction goals. (See Attachment 1 at p. 9-10.)

Unfortunately, the Actions supporting Strategy 2 provide no concrete requirements or criteria, or way to measure success. For instance, Action T1 states “Expand the number and extent of transit oriented communities, by encouraging development within High Quality Transit Areas, while ensuring vital public amenities such as parks and active transportation infrastructure are included.” (Draft CAP at 50.) Action T1 fails to contain a clear plan how such development will be “encouraged” such that it is little more than a hortatory statement. Likewise, Action T2 states “Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease the vehicle miles traveled.” (*Id.*) This action suffers from the same defects as Action T1. It also fails to specify any target increase in percentage of residents who live or work in the same community, or elements of such “community plans.”

VII. Strategy 3 Fails to Include Sufficient Measures to Reduce VMT.

Strategy 3 aims to reduce single occupancy vehicle (“SOV”) vehicle trips. However, the Draft CAP does not contain sufficiently aggressive goals. For instance, the Draft CAP only seeks 15 percent of trips to be non-SOV trips by 2025. (Draft CAP at 51.) As we noted in our comments on the Draft Sustainability Plan (Attachment 1), even if this target is met, in five years 85 percent of trips in the County will still be by car. The Draft CAP should call for much stronger measures to reduce SOV trips and VMT. The best way to do this is to limit development

in areas far from existing cities, as remote developments generate disproportionately high levels of VMT.

The actions within Strategy 3 are similarly inadequate. For instance, Action T5 states “develop a transportation technology strategy to proactively address how evolving tech-enabled mobility options can support public transit and advance OurCounty goals.” (Draft Plan at 51.) This is extremely vague and suffers from the defects outlined in Section V above. Similarly, Action T8 generally refers to “expand[ing] shade along and over pedestrian networks through zoning code revisions that encourage shade-providing building features,” but provides no enforceable requirements or metrics as to how much “shade expansion” will be required. (Draft CAP at 52.) Also illustrative of this problem is Action T11, which states, “Develop and implement a transportation demand management (TDM) ordinance that requires developers to incorporate measures such as subsidized transit passes and car share.” (Draft CAP at 53.) The time and opportunity to develop measures to require of developers for future projects is here in the CAP, if the County wishes to use the CAP as a CEQA streamlining document.

VIII. Strategy 4 Does Not Include A Clear Plan to Institutionalize Low-Carbon Transportation.

The Center supports Strategy 4 – institutionalize low-carbon transportation. (Draft CAP at 44.) However, the related “Targets” are woefully inadequate – the Draft Plan only seeks 500 EV and 200 ZEV charging stations at County-owned or public properties, and contains no targets for the remainder of the County (e.g., private businesses, residential developments). (Draft CAP at 55.) Likewise, the “Actions” provide no actual mandate for developers or landowners to incorporate charging stations into infrastructure.

If the County is serious about institutionalizing low carbon transportation, it needs to do far more than simply add a few hundred EV chargers at public venues. The CAP should instead include aggressive mandates for every new development (commercial and residential) to include an adequate number of EV chargers, as well as a crediting system in order to incentivize the retrofitting of existing commercial and residential developments with EV chargers.

The CAP should also require installation of charging stations at *all* County-owned properties and public venues, as well as in appropriate public right-of-ways.

And as with the other sections of the CAP, the “Actions” are vague, unenforceable, and do not include any performance criteria. For instance, Action T20 states: “Partner with a car or ride-sharing organization to provide access to EVs for low-income and disadvantaged community residents.” (Draft CAP at 57.) Action T20 does not provide any guidance as to what “partnering” means, nor does it provide any benchmark for success. How much expanded access to EVs will the County pursue via this measure? By failing to include any actual target or goal to measure success, the Draft CAP dooms this (and many other Actions) to failure.

IX. Strategy 5 Does Not Contain Clear Plan To Accelerate Freight Decarbonization.

The Center supports the goal to accelerate freight decarbonization. Unfortunately, once again, the Draft CAP’s Targets and Actions are not sufficient to meaningfully support this goal.

The Draft CAP does not even clear targets for medium-duty delivery trucks – it simply states that 25-50 percent of medium-duty delivery trucks should be electric or zero emission by 2025. (Draft CAP at 58.) This renders it unclear whether the goal is 25 percent or 50 percent. And the Draft CAP simply has no corresponding and more aggressive targets for 2035 and 2045.

Likewise, the Actions are untenably vague. By way of example, Action T25 states: “Implement freight decarbonization technologies along highway corridors passing through unincorporated communities ...” (Draft CAP at 59.) No specifics, enforceable mandates, or performance criteria are used to define this purportedly “Major Action.”

X. Strategy 6 Contains No Plan to Implement Zero Emissions Technologies for Off-road Vehicles and Equipment.

The Draft CAP should include concrete plans to implement and eventually require zero emissions technologies off-road vehicles and equipment. Instead, the Action items include non-binding language like: “Partner with SCAQMD and AVAQMD to *encourage* the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.” (Draft CAP at 60, emphasis added.) The CAP can, and should, require zero emission or near-zero emission equipment by a specific date.

XI. Strategy 7 Does Not Provide A Plan To Decarbonize Building Energy Use.

The Center supports decarbonizing building energy use, but finds that the Draft CAP squanders an opportunity to establish the County as a leader in this area. The Final CAP should require zero net energy on all new commercial and residential construction. Zero net energy is feasible, as other projects in the County that have recently been approved include a goal of zero net greenhouse gas emissions.³

Indeed, the Draft CAP does not even contain goals that are consistent with state-wide goals. The California Energy Efficiency Strategic Plan provides:

All new residential construction will be zero net energy (ZNE) by 2020.
All new commercial construction will be ZNE by 2030
50% of commercial buildings will be retrofit to ZNE by 2030
50% of new major renovations of state buildings will be ZNE by 2025.⁴

In contrast, the Draft CAP only sets a target of 50 percent of all new buildings and major building renovations being “net zero carbon” by 2025 and 100 percent by 2045. (Draft CAP at 63.) The Draft Plan should contain far more aggressive goals that are consistent with climate science; the entire building sector should achieve zero emissions no later than later than 2045,

³ See California Department of Fish and Wildlife, *Newhall Ranch Resource and Development Management and Development Plan, Final Additional Environmental Analysis*, Appendix 2.1, available at http://planning.lacounty.gov/assets/upl/case/tr_53108_appendix-2-0-cdfw-final-aea-excerpts.pdf.

⁴ California Public Utilities Commission, *Zero Net Energy*, available at <https://www.cpuc.ca.gov/ZNE/>.

with interim enforceable benchmarks.⁵ Moreover, the Draft CAP also does not explain whether term “net zero carbon” is consistent with the state definition of zero net energy.

Strategy 7’s Actions fair no better. For instance, Action SE2 simply states “Establish carbon intensity limits for buildings over 20,000 square feet.” (Draft CAP at 64.) This contains no objection performance criteria – at best, it is a promise to develop performance criteria at some unspecified time in the future. As such, it fails as a CEQA mitigation measure. (See discussion in Section V above.)

Action SE4 also vaguely promises to “Adopt building code requirements for electric water and space heating and encourage alternatives to other natural gas uses in new and existing buildings.” (Draft CAP at 64.) The CAP needs to actually describe building code requirements or provide performance criteria. And “encouraging alternatives” is not a CEQA mitigation measure. Action SE7 likewise promises collaboration with the City of Los Angeles and Santa Monica to “develop building energy and emissions performance standards,” but provides no specifics on what those standards will entail, or what level of emissions reductions they would be expected or required to provide. (Draft CAP at 65.)

Action SE5 states “Adopt CALGreen Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments.” (Draft CAP at 64.) However, significant portions of the California Green Building Standards are already mandatory. Such that it is unclear whether there is simply a restatement of existing law.⁶

Action SE6 is problematic for other reasons. This Action states, “Incentivize net zero energy residential and commercial buildings through streamlined development reviews.” (Draft CAP at 65.) First, as noted above, zero net energy should be *required*, not simply incentivized. Second, the Action does not explain what or how development review will be “streamlined.” While a CAP that complies with CEQA can streamline some aspects of development, development review should not be streamlined in a way that overlooks other non-climate impacts of a project, such as impacts on air quality, public health, wildlife, and traffic.

In contrast to the vague and unenforceable Actions in the Draft CAP, there are number of enforceable policies that can be used to reach achieve zero emissions by 2045 for all buildings. The Sierra Club’s *Building Electrification Action Plan for Climate Leaders* outlines various proposals, including a zero emission building code, local ordinances restricting gas and requiring all-electric new construction for all building types, GHG performance benchmarking, and air pollution standards for appliances. (See footnote 5.)

⁵ Rachel Golden, *Building Electrification Action Plan for Climate Leaders* <https://www.sierraclub.org/sites/www.sierraclub.org/files/Building%20Electrification%20Action%20Plan%20for%20Climate%20Leaders.pdf> (Dec. 2019).

⁶ See California Building Standards Commission, “California’s Green Building Code,” available at <https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen>.

XII. Strategy 9 Does Not Provide A Concrete Plan To Increase Energy Resilience.

The Center supports the Draft CAP's goal to shift to a renewables-based electricity supply which ensures equitable access to affordable, local, and reliable energy sources. (Draft CAP at 69.) The Center urges the County to include more ambitious targets for distributed energy resources ("DER"). The Draft CAP calls for a 200 megawatt increase in DER capacity by 2025 and a 1 gigawatt increase by 2045. The Center urges the County to incorporate a target of 1 gigawatt in photovoltaic ("PV") energy by 2025 and 4 gigawatts by 2045. The Draft CAP should include a target for 500 megawatts of distributed storage capacity by 2045 and 2 gigawatts by 2045.

DER plays a unique and vital role in creating a renewable energy future that not only promotes deeper renewable penetration, but also advances fundamental goals of equal access to clean energy, social justice, and biodiversity protection. With minimal water use, no emissions from generation, and minimal land use impacts, distributed solar is the most sustainable energy source currently in production.⁷ Further, building up distributed solar allows communities to gain local control over their energy system rather than leaving that control in the hands of investor-owned monopoly utilities. This shift empowers communities to make their own energy choices and gives them access to cheaper and cleaner energy, driving energy democracy. Progressive community solar policy can also enable renters and individuals who cannot afford to buy solar energy systems to invest in renewable energy, which in turn creates economic growth and local employment opportunities.

Studies show that far more ambitious targets for DER are currently feasible. A study by the National Renewable Energy Laboratory found that Los Angeles could support 9 gigawatts of rooftop solar, or 60 percent of its estimated total energy demand, using fairly conservative estimates.⁸ Another study by the Institute of the Environment and Sustainability at the University of California, Los Angeles ("UCLA") found that rooftop solar can provide 7200 gigawatt hours of on-site building demands in a study area of 1.2 million parcels in L.A. County, which would meet approximately 29 percent of on-site building demands.⁹

The UCLA study found that remaining building demand that would be met by grid sources is approximately 18,000 gigawatt hours, and the potential solar output to export to the grid that is not used on-site is 16,400 gigawatt hours – this significant amount of additional electricity could be available for use by neighboring properties or elsewhere. The UCLA study also found that existing policies regulating grid operations limit potential rooftop solar output; in 20 percent of communities, current policies would reduce the technical potential of net solar generation by limiting the size of the arrays that can be installed. Moreover, the UCLA study found that lower-income and at-risk communities have greatest capacity for solar energy exports

⁷ Wiser, R. et al., "The environmental and public health benefits of achieving high penetrations of solar energy in the United States," *Nature Energy* Vol. 113, pp. 472-486 (2016); Hernandez, R.R., Hoffacker, M.K. and C. Fields, "Efficient Use of Land to Meet Sustainable Energy Needs," *Nature Climate Change*, Vol. 5: 353-358, (2015).

⁸ Pieter Gagnon, et al., *Rooftop Solar Photovoltaic Technical Potential in the United States: A Detailed Assessment* (Jan. 2016), available at <https://www.nrel.gov/docs/fy16osti/65298.pdf>.

⁹ Erik Porse, et al., *Net solar generation potential from urban rooftops in Los Angeles*, Energy Policy (July 2020).

to the grid. In short, the County should take a hard look at the actual solar capacity of the County based upon existing studies and include policies to meet or exceed the actual solar capacity.

The proposed Actions are also insufficient to address either the targets in the Draft CAP or the more aggressive targets proposed by the Center. Action SE14 proposes developing a community energy map that identifies opportunities for deploying distributed energy resources and microgrids in order to improve energy resiliency in disadvantaged communities. (Draft CAP at 69.) Instead of merely generating a map, the County should develop a program or ordinance to fund and facilitate PV and storage microgrid development, especially for unincorporated and fire-prone areas. The County could begin this program in fire-prone communities, and aim for a minimum of 10 percent PV and storage microgrids instead of simply 10 percent DER installation in fire-prone communities.

XIII. Strategy 10 Fails to Provide a Plan To Reach the Target Renewable Energy Goals.

The Center supports the general goal of Strategy 10 to increase renewable energy, but notes that much stronger targets should be incorporated into the Draft CAP. The Draft CAP calls for installation of solar on only 20 percent of commercial buildings over 50,000 square feet and at least 10 percent of single family residential buildings by 2025, and higher targets for 2035 and 2045.

The Draft CAP should set far more ambitious targets. It should require solar on 60 percent of commercial buildings of any size that are solar compatible and 50 percent of residential buildings by 2025, and 100 percent of all solar compatible buildings by 2030.

The Draft CAP also does not specify *how much* solar must be installed on buildings; by its own terms, a single small panel could be installed on a building, and that building could potentially count towards the goals. As with other sections of the Draft CAP, the Draft CAP does not explain or provide data (e.g., in appendices) how the anticipated GHG mitigation potential is supported by the target.

Once again, the proposed mitigation strategies or “Actions” fall far short of even meeting the Draft CAP’s existing targets. For instance, Action SE17 simply promises that the County will “encourage 100% renewable energy resource mix by 2025.” (Draft CAP at 72.) The severity and urgency of the climate crisis requires governments to do far more than simply “encourage” positive steps—the climate crisis (and state laws and policies) *requires* far more aggressive actions.

Moreover, the Draft CAP should strengthen the County’s role in supporting the community choice aggregation program. More specifically, the Draft CAP should include a no-cost subscription program for low-income families as well as tenants to participate. Such programs could be funded by creating a Community Energy Benefits Fund that would then be overseen by citizen task force or other non-governmental body—the Portland Clean Energy Fund illustrate of how such a program could function. Another example is East Bay Community Energy, which serves Alameda County.

XIV. The Draft CAP Fails to Contain Any Clear Plan To Support Strategy 16, Conserve Forests and Working Lands

The Center supports the conservation of forests and working lands. The Center also supports the targets to increase urban tree canopy. However, the Draft CAP fails to acknowledge how this plan fits into other related plans and programs. In particular, the City of Los Angeles is currently moving forward with a “Safe Sidewalks” initiative that will likely result in the destruction of many thousands of urban trees.¹⁰

Moreover, the Center supports Action A1 – supporting “the preservation of agricultural and working lands, including rangelands, and restore forest lands, by limiting the conversion of these lands to residential or other uses through tools such as the creation of agricultural easements, particularly within high climate-hazard areas and SEAs.” (Draft CAP at 87.) Yet, as outlined in our comments on the Draft Sustainability Plan, the County has a pattern and practice of *approving* large-scale development in rangelands and forest lands, particularly in high fire hazard areas. (See Attachment 1 at p. 4.) Action A1’s unenforceable promise to “limit” such conversion is unavailing and fails as a CEQA mitigation measure. (Draft CAP at 87.)

XV. The Draft CAP Fails to Identify Funding Sources for Mitigation Strategies.

As noted above, in *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, the Court of Appeal determined that measures in a CAP were insufficient when they were not adequately funded. (*Id.* at 1168-1169.) Here, the various “actions” in the Draft CAP acknowledge that funding will be required (using icons ranging from a \$ to \$\$\$\$\$), but fail to include a specific estimate of how much funding may cost, or identify an available source of funding. Similarly, the handful of sentences in the Implementation Plans “identification of funding sources” provide no specificity nor commitment for funding any of the Draft CAP’s Actions. (See Draft CAP at 92.) This renders the Draft CAP inadequate as a CEQA streamlining document. Moreover, this omission calls into question whether any of the programs outlined in the Draft CAP will ever be implemented.

XVI. The Draft EIR Should Provide Further Detail on Mitigation Measures for Individual Projects.

The Center understands that the County will be preparing an EIR for the CAP. (See, e.g., Draft CAP at 15 [“With the adopted CAP, project-specific environmental documents that incorporate applicable CAP actions can “tier off” the environmental document adopted for the CAP to meet project-level CEQA evaluation requirements for GHG emissions.”].) In addition, CEQA Guidelines section 15183.5(b)(1)(F) requires that a climate action plan be adopted in a public process “after environmental review.” Subdivision (b)(2) provides that “[a] plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later project.”

¹⁰ Safe Sidewalks LA, Draft Environmental Impact Report, available at <https://sidewalks.lacity.org/environmental-impact-report>.

The Center hereby requests a minimum 90-day comment period for the Draft EIR in order to allow for adequate review by the public, particularly given the importance of the document for region-wide planning and the complexity of the issues. We hope that the Draft EIR and next draft of the CAP include and evaluate clear and enforceable measures to put the County on track to reach each of the statewide goals.

XVII. Conclusion

Thank you for the opportunity to submit comments on the Draft CAP. The Center strongly supports many of the goals of the Draft CAP. But these goals are not supported by clear, enforceable, and funded policies. The Center urges the County to significantly revise the CAP in order to address these deficiencies.

Please do not hesitate to contact us if you would like to meet to further discuss these issues.

Sincerely,



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Attachment 1



May 24, 2019

Sent via email and FedEx

Los Angeles County Chief Sustainability Office
Kenneth Hahn Hall of Administration
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Los Angeles, California 90012
sustainability@lacounty.gov

Re: Comments on Discussion Draft of Los Angeles Countywide Sustainability Plan

Dear Los Angeles County Chief Sustainability Office:

These comments are submitted on behalf of the Center for Biological Diversity (“Center”) regarding the Discussion Draft of the Los Angeles Countywide Sustainability Plan (“Draft Plan”). The Center appreciates the Chief Sustainability Office’s efforts in developing the Draft Plan and generally supports the goals of the Draft Plan. We urge the Chief Sustainability Office and the Los Angeles County Board of Supervisors (“Board”) to ensure that the strategies and policies supporting these goals are clear and enforceable.

A. Background on the Center for Biological Diversity.

The Center for Biological Diversity (“Center”) is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Los Angeles County.

B. The Center Urges Stronger Buffers to Ensure Healthy Community Environments.

We strongly support Goals 1 and 4—“resilient and healthy community environments where residents thrive in place” and opportunities for residents and businesses to “transition to clean economy sectors.” (Draft Plan at 20 & 72.) We also support strong efforts to decrease the public health problems generated by freeways and oil and gas drilling, but are concerned that the proposed targets and actions do not go far enough.

The Plan Should Require Larger Buffers between Sensitive Uses and Freeways

We support “siting of new sensitive uses, such as playgrounds, daycare centers, schools, residences, or medical facilities” farther from freeways, but are concerned that the proposed 500-foot buffers are insufficient. Studies indicate even people **900 to 1200 feet** from freeways experience health impacts and sensitive receptors such as children and the elderly suffer the most. (Lin 2002.) A review of 700 studies concluded that pollution causes asthma attacks in children, the onset of childhood asthma, impaired lung function, premature death and death from cardiovascular diseases, and cardiovascular morbidity. (Health Effects Institute 2010.) The Health Effects Institute study concluded that the “exposure zone” was 300 to 500 meters from the highways (984 feet to 1640 feet). (*Id.*) Other studies have reached similar conclusions. (Suglia 2008.) Living near expressways also increases the likelihood that residents will suffer from dementia. (Chen 2017.) The University of Southern California’s Environmental Health Centers have also collected data and studies showing risks and health impacts to pregnant women, babies, children, teenagers, adults, and seniors of living by a freeway.¹

The Plan Should Require 2500-foot Setbacks to Separate Oil and Gas Facilities from Homes

We would like to emphasize our support for the Draft Plan’s inclusion of a series of actions to address the disproportionate exposure of low-income communities of color to fossil fuel extraction and refining (Actions 2, 3, 4, 5 and 7). In addition, we support Action 78 that calls for collaborating with the City of Los Angeles to develop a sunset strategy for oil and gas operations that prioritizes disproportionately impacted neighborhoods. In the final adoption of the plan, we urge the County to incorporate a more specific, concrete and common sense measure that we have supported at the City and County as an ally of the STAND-LA coalition: a 2500-foot setback (or buffer zone) to separate oil and gas facilities from homes, schools and other sensitive land uses, with a plan to phase out existing oil and gas within no more than five years. We are also supportive of the Draft Plan’s inclusion of a commitment to a “Just Transition” that examines the impact of the transition to a cleaner economy and develops strategies for supporting displaced workers and connecting them with meaningful job training and employment opportunities (Actions 56 and 57).

¹ University of Southern California Environmental Health Centers, *References: Living Near Busy Roads or Traffic Pollution*, available at <http://envhealthcenters.usc.edu/infographics/infographic-living-near-busy-roads-or-traffic-pollution/references-living-near-busy-roads-or-traffic-pollution> (collecting studies). See also Tony Barboza and Jon Schleuss, “L.A. keeps building near freeways, even though living there makes people sick,” *Los Angeles Times* (Mar. 2, 2017), available at <http://www.latimes.com/projects/la-me-freeway-pollution/>.

Reducing Asthma and Toxic Emissions through Less VMT

The Center strongly supports decreasing child asthma rates as proposed by the Draft Plan. However, this will not be possible if the Board continues to approve projects that add more unnecessary freeway traffic and air pollution to the region. An example of this is the recently-approved Centennial development approved by the Board, which will add 75,000 new long distance car commuters onto our freeways, increasing air pollution and hindering efforts to reduce toxic emissions.

C. The Center Supports Goal 2 and Urges Implementation of Zero Net Energy Standards.

We support the Plan’s Goal 2—ensuring that “[b]uildings and infrastructure that support human health and resilience.” (Draft Plan at 42.) The Center notes that Action Item 30 envisions the County will “Pilot high performance building standards for new County buildings beyond the current LEED Gold standard, such as Passive House, Zero Net Energy, Net Zero Water, Net Zero Waste...” (Draft Plan at 50.) The Center urges the Plan to require more than just a “pilot” for Zero Net Energy and instead move forward with policies and standards to require zero net energy for new construction.

Zero net energy is feasible, as other projects in the County that have recently been approved include a goal of zero net greenhouse gas emissions. Such projects intend to achieve that goal through reducing onsite greenhouse gas emissions to the greatest extent practicable, but also by offsetting any other emissions through local emissions reductions projects.²

D. The Center Supports Goal 3 and Urges Concrete and Enforceable Policies to Limit Sprawl Development.

The Center strongly supports the Draft Plan’s goal of equitable and sustainable land use and development without displacement. (Draft Plan at 58.) The Center agrees that the way the County “choose[s] to direct that growth has huge implications for the environment, the economy and social equity.” (*Id.*) Likewise, the Center agrees:

Patterns of exurban sprawl and development in high-hazard areas can place major burdens on our infrastructure and public budgets, especially for unincorporated communities where the County of Los Angeles acts as the municipal service provider. Outward growth limits the resources we could otherwise be investing in our existing communities, where we can promote sustainability, health and well-being by improving walkability and promoting a mixture of uses.

(Draft Plan at 58.) The Draft Plan is correct that exurban sprawl imposes a hidden tax on existing communities. Studies recognize that sprawl “may deprive the poor of economic

² See California Department of Fish and Wildlife, *Newhall Ranch Resource and Development Management and Development Plan, Final Additional Environmental Analysis*, Appendix 2.1, available at http://planning.lacounty.gov/assets/upl/case/tr_53108_appendix-2-0-cdfw-final-aea-excerpts.pdf.

opportunity...when jobs, stores, good schools and other resources migrate outward from the core city, poverty is concentrated in the neighborhoods that are left behind.” (Frumkin 2002.) Studies also show that sprawl disproportionately increases costs on local government through increased infrastructure costs. (Litman 2015.) One study found that the external costs of sprawl are around \$500 billion annually and \$650 billion internally. (*Id.*) Sprawl also has significant equity implications—“the abandonment of the metropolitan core leaves inner cities and first-ring suburbs struggling to provide adequate services with an eroded tax base even as growth continues on the periphery.” (Belzer 2002.)

The Draft Plan is also correct that “[u]rban sprawl generally requires expensive and expansive infrastructure networks that drain resources and contribute significantly to greenhouse gas emissions.” (Draft Plan at 60.)

Unfortunately, with the exception of Supervisor Kuehl, the Board has not shown they are serious about curbing urban sprawl. County supervisors just approved one of the biggest urban sprawl projects in California history last month, the 12,000-acre Centennial Specific Plan, on remote wildlands in the northern corner of the County. The Center informed the County that Centennial would result in less investment in existing communities and—as observed by the developer’s own consultants—draw demand away from existing communities in Santa Clarita and San Fernando. The development would also require the construction of a new six-lane freeway (the Northwest 138 Corridor “Improvement Project”), at an initial cost to taxpayers of \$830 million.

The Board also just approved the 1,300-acre Northlake development over the objection of the Santa Monica Mountains Conservancy (and the Center). That project will pave over pristine wildlands, inhibit wildlife connectivity in the region, and disproportionately contribute to greenhouse gas emissions, traffic, and air pollution.

If the County is serious about ending its historical pattern of approving more development in the county’s diminishing wildlands and rangelands, then it needs to adopt strong enforceable policies to meet this goal. Action 44 is a step in the right direction. The Draft Plan states, “Prohibit the conversion of working lands to residential uses, including farms and rangelands.” (Draft Plan at 60.) Such a policy—if it were actually consistently enforced—would be a strong step forward in protecting the County’s natural resources.

E. The Center Supports the Draft Plan’s Target to Limit Discretionary Development in High Fire Areas.

We support Strategy 3E—limiting development in high fire areas. The science is clear that we can no longer continue building new large-scale development in high fire areas. In Southern California, sprawl developments with low/intermediate densities extending into chaparral and sage scrub habitats that are prone to fire have led to more frequent wildfires caused by human ignitions, like arson, improperly disposed cigarette butts, debris burning, fireworks, campfires, or sparks from cars or equipment (Keeley et al. 1999; Keeley and Fotheringham 2003; Syphard et al. 2007; Syphard et al. 2012; Bistinas et al. 2013; Balch et al. 2017; Radeloff et al. 2018). Human-caused fires account for 95% of all fires in Southern California (Syphard et al.

2013), and homes filled with petroleum-based products, such as wood interiors, paint, and furniture, provide additional fuel for the fires to burn longer and spread farther (Keeley et al. 2007). The most numerous and largest fires in Southern California have been caused by equipment and powerlines in the wildland-urban interface, where housing density is low to intermediate (Syphard and Keeley 2015), and leapfrog developments have been found to have the highest predicted fire risk in the County (Syphard et al. 2013).

More development in high fire areas such as chaparral and sage scrub would lead to a dangerous feedback loop of deadly fires and habitat destruction. These habitats are adapted to infrequent (every 30 to 150 years), large, high-intensity crown fire regimes (Pyne et al. 1996; Keeley and Fotheringham 2001), and if these regimes are disrupted, the habitats become degraded (Keeley 2005, 2006a,b; Syphard et al. 2018). When fires occur too frequently, type conversion occurs and the native shrublands are replaced by non-native grasses and forbs that burn more frequently and more easily, ultimately eliminating native habitats and biodiversity while increasing fire threat over time (Keeley 2005, 2006a,b; Syphard et al. 2009; Safford and Van de Water 2014; Syphard et al. 2018). Thus, placing developments in these high fire-prone areas will lead to more frequent fires while degrading the health and biodiversity of Southern California's ecosystems.

Nonetheless, the "actions" in the Draft Plan do not set forth a clear plan to actually limit development in high fire areas. In particular, while the Countywide "Target" states "no new discretionary development in high hazard areas" by 2025, there is no "action" proposed to meet this target. (Draft Plan at 70.) Instead, as mentioned above, the County has been approving large-scale development such as Centennial and Northlake in high fire areas. By approving entitlements for these projects now despite the science showing such development is dangerous, costly, and environmentally harmful, the County is ensuring large-scale development will continue in fire-prone areas for many years.

F. The Center Strongly Supports Goal 5 and Urges The County To Develop a Wildlife Connectivity Ordinance

The Center strongly supports the Draft Plan's goal of thriving ecosystems, habitats, and biodiversity. (Draft Plan at 78.) To realize this goal, the Plan must consider the issue of wildlife connectivity and the effects of suburban development on wild areas, as explained below.

Habitat Connectivity Is Essential for Wildlife Movement and Biodiversity Conservation.

Habitat connectivity is vital for wildlife movement and biodiversity conservation. Limiting movement and dispersal with barriers (*e.g.*, development, roads, or fenced-off croplands) can affect animals' behavior, movement patterns, reproductive success, and physiological state, which can lead to significant impacts on individual wildlife, populations, communities, and landscapes (Trombulak and Frissell 2000; Tewksbury et al. 2002; Cushman 2006; van der Ree et al. 2011; Haddad et al. 2015; Ceia-Hasse et al. 2018). Individuals can die off, populations can become isolated, sensitive species can become locally extinct, and important ecological processes like plant pollination and nutrient cycling can be lost. In addition, connectivity between high quality habitat areas in heterogeneous landscapes is important to

allow for range shifts and species migrations as climate changes (Heller and Zavaleta 2009, Cushman et al. 2013). Lack of wildlife connectivity results in decreased biodiversity and degraded ecosystems. Thus, preserving and maintaining natural and created corridors is critical for species and habitat conservation in fragmented landscapes (Gilbert-Norton et al., 2010).

Wildlife connectivity and migration corridors are important at the local, regional, and continental scale. Local connectivity that links aquatic and terrestrial habitats would allow various sensitive species to persist, including state- and federally-protected California red-legged frogs (*Rana draytonii*), arroyo toads (*Anaxyrus californicus*), and other species. At a regional scale, medium- and large-sized mammals that occur in Los Angeles County, such as mountain lions (*Puma concolor*), bobcats (*Lynx rufus*), gray foxes (*Urocyon cinereoargenteus*), ring-tailed cats (*Bassariscus astutus*), and mule deer (*Odocoileus hemionus*), require large patches of heterogeneous habitat to forage, seek shelter/refuge, and find mates.

Climate Change Is Likely to Significantly Alter Wildlife Behavior and Movement.

A strong, international scientific consensus has established that human-caused climate change is causing widespread harms to human society and natural systems, and climate change threats are becoming increasingly dangerous. In a 2018 *Special Report on Global Warming of 1.5°C* from the Intergovernmental Panel on Climate Change (IPCC), the leading international scientific body for the assessment of climate change describes the devastating harms that would occur at 2°C warming, highlighting the necessity of limiting warming to 1.5°C to avoid catastrophic impacts to people and life on Earth (IPCC 2018). In addition to warming, many other aspects of global climate are changing. Thousands of studies conducted by researchers around the world have documented changes in surface, atmospheric, and oceanic temperatures; melting glaciers; diminishing snow cover; shrinking sea ice; rising sea levels; ocean acidification; and increasing atmospheric water vapor (USGCRP, 2017).

Climate change is increasing stress on species and ecosystems, causing changes in distribution, phenology, physiology, vital rates, genetics, ecosystem structure and processes, and increasing species extinction risk (Warren et al., 2011). A 2016 analysis found that climate-related local extinctions are already widespread and have occurred in hundreds of species, including almost half of the 976 species surveyed (Wiens 2016). A separate study estimated that nearly half of terrestrial non-flying threatened mammals and nearly one-quarter of threatened birds may have already been negatively impacted by climate change in at least part of their distribution (Pacifici et al. 2017). A 2016 meta-analysis reported that climate change is already impacting 82 percent of key ecological processes that form the foundation of healthy ecosystems and on which humans depend for basic needs (Scheffers et al. 2016). Genes are changing, species' physiology and physical features such as body size are changing, species are moving to try to keep pace with suitable climate space, species are shifting their timing of breeding and migration, and entire ecosystems are under stress (Cahill et al., 2012; Chen et al., 2011; Maclean & Wilson, 2011; Parmesan, 2006; Parmesan & Yohe, 2003; Root et al., 2003; Warren et al., 2011). As such, it is imperative that current and future land use planning consider the impacts of climate change on wildlife movement.

Corridor Redundancy Helps Retain Functional Connectivity and Resilience.

Corridor redundancy (*i.e.* the availability of alternative pathways for movement) is important in regional connectivity plans because it allows for improved functional connectivity and resilience. Compared to a single pathway, multiple connections between habitat patches increase the probability of movement across landscapes by a wider variety of species, and they provide more habitat for low-mobility species while still allowing for their dispersal (Mcrae et al., 2012; Olson & Burnett, 2013; Pinto & Keitt, 2008). In addition, corridor redundancy provides resilience to uncertainty, impacts of climate change, and extreme events, like flooding or wildfires, by providing alternate escape routes or refugia for animals seeking safety (Cushman et al., 2013; Mcrae et al., 2008; Mcrae et al., 2012; Olson & Burnett, 2013; Pinto & Keitt, 2008).

Human Development and Associated Noise and Lighting Can Interfere with the Behavior of Local Wildlife Such as Mountain Lions.

Human development and associated noise can degrade adjacent wildlife habitat and behavior. (*See, e.g.,* Slabbekoorn 2008.) For instance, field observations and controlled laboratory experiments have shown that traffic noise can significantly degrade habitat value for migrating songbirds. (Ware et al. 2015.) This finding followed lab results indicating that subjects exposed to 55 and 61 dBA simulated traffic noise exhibited decreased feeding behavior and duration, as well as increased vigilance behavior. (*Id.*) Such behavioral shifts increase the risk of starvation, thus decreasing survival rates. A recent study also highlighted the detrimental impacts of siting development near areas protected for wildlife. The study noted that “Anthropogenic noise 3 and 10 dB above natural sound levels . . . has documented effects on wildlife species richness, abundance, reproductive success, behavior, and physiology.” (Buxton, et al.) The study further noted that “there is evidence of impacts across a wide range of species [] regardless of hearing sensitivity, including direct effects on invertebrates that lack ears and indirect effects on plants and entire ecological communities (e.g., reduced seedling recruitment due to altered behavior of seed distributors).” (*Ibid.*) Moreover, human transportation networks and development resulted in high noise exceedances in protected areas. (*Ibid.*)

There also is strong evidence documenting the effects of human activity specifically on mountain lions. One study found that mountain lions are so fearful of humans and noise generated by humans that they will abandon the carcass of a deer and forgo the feeding opportunity just to avoid humans. (Smith 2017.)³ The study concluded that even “non-consumptive forms of human disturbance may alter the ecological role of large carnivores by affecting the link between these top predators and their prey.” (Smith 2017.) In addition, the study found that mountain lions respond fearfully upon hearing human vocalizations. Another study demonstrates that mountain lions exposed to other evidence of human presence (lighting, vehicles, dogs) will impact mountain lion behavior. (Wilmers 2013.) Other studies documented diet shifts in mountain lions near human development, and recommended minimizing any development in mountain lion habitat. (Smith 2016; *see also* Smith 2015.)

³ *See also* Sean Greene, “How a fear of humans affects the lives of California's mountain lions,” *Los Angeles Times* (June 27, 2017), available at <http://beta.latimes.com/science/sciencenow/la-sci-sn-pumas-human-noise-20170627-story.html>.

Additional studies similarly documented that mountain lions avoid “urban, agricultural areas, and roads and prefer[] riparian areas and more rugged terrain.” (Zeller 2017; *see also* Vickers 2015.) One study found that over half (55 percent) of radio collared mountain lions in urban areas did not survive, and the majority were killed by humans either by vehicle strikes or using depredation permits. (Vickers 2015.) As such, the Plan should include policies to minimize development in open space areas, as “edge effects” from such development can interfere with animal behavior and movement.

Creating and Enhancing Wildlife Crossings Is Critical to Maintaining Healthy Ecosystems.

We recommend that the Draft Plan include stronger policies to promote wildlife movement and/or include a goal to develop a county wildlife connectivity ordinance. Enhanced connectivity helps sustain functional ecosystems and ensure public safety. Although natural, existing corridors in fragmented landscapes have been shown to have more wildlife movement compared to created corridors (Gilbert-Norton et al., 2010), crossing structures combined with setbacks at the entrances and exits are useful as retroactive restoration in areas where existing roads have high incidence of wildlife vehicle conflict or where species movement has been severely impacted. When appropriately implemented, wildlife crossing infrastructure has been shown to improve wildlife permeability and reduce wildlife vehicle collisions (Bissonette & Rosa, 2012; Dodd Jr. et al., 2004; Dodd et al., 2012; Kintsch et al., 2018; Sawaya et al., 2014; Sawyer et al., 2012).

Outside of California many other states and jurisdictions have been proactively addressing wildlife connectivity issues. For example, Arizona, Colorado, and Wyoming have seen 80-96% reductions in wildlife vehicle collisions while gradually increasing the level of wildlife permeability over time (it appears that some species take more time than others to adapt to crossings) on sections of highways where they have implemented wildlife crossing infrastructure, such as underpasses, culverts, overpasses, wildlife fencing, and escape ramps (Dodd et al., 2012; Kintsch et al., 2017; Kintsch et al., 2018; Sawyer et al., 2012). Utah just completed the state’s largest wildlife overpass at Parleys Canyon for moose, elk, and deer. Washington State is about to complete its largest wildlife overpass on I-90, which is anticipated to provide habitat connectivity for a wide variety of species between the North and South Cascade Mountains. The overpass cost \$6.2 million as part of a larger \$900 million expansion project that will include multiple wildlife crossings along a 15-mile stretch of highway. Savings from less hospital bills, damage costs, and road closures from fewer wildlife vehicle collisions will make up those costs in a few years (Valdes 2018). State and local officials are actively pursuing these types of projects because of the benefits for wildlife connectivity, public safety, and the economy. And in neighboring Ventura County, the Board of Supervisors recently adopted a first-of-its-kind ordinance to protect wildlife connectivity.

The Draft Plan Should Provide Clear Action Items To Support Wildlife Connectivity

We are concerned that the action items proposed in the Draft Plan are insufficient to support Goal 5. In particular, lacking from the action items is any clear plan for ensuring habitat connectivity within the region.

Instead, it appears that the County has not prioritized this issue. For instance, the County General Plan EIR anticipated a significant adverse effect on wildlife movement.⁴ The California Department of Fish and Wildlife (“CDFW”) urged the County to develop mitigation opportunities for wildlife connectivity, since such “opportunities for wildlife corridors and nursery sites are best established during large scale planning efforts such as this General Plan.” CDFW noted that “Wildlife corridor areas can be delineated and set aside in the General Plan for current and future conservation efforts. An assessment could be placed on development within the Project area to secure the acquisition of these critical linkages and sites, therefore reducing impacts to wildlife corridors and nursery sites and ensuring biological diversity.”⁵ The County did not implement CDFW’s recommendations.

The Plan should include a goal to develop a wildlife connectivity ordinance. Moreover, while the proposed “actions” to support Goal 5 are all helpful measures, more is needed. The Plan should incorporate policies that support an “urban growth boundary.” Urban growth boundaries have been used in other jurisdictions as a tool to encourage development in or near existing communities while leaving natural areas undeveloped. Without a clearly defined urban growth boundary, developers will continue to propose—and the Board will continue to approve—development in wild and fire-prone areas, which will further inhibit wildlife connectivity while increasing traffic and air pollution.

G. The Center Supports Goals 7 and 8 and Encourages Stronger Policies To Reduce VMT.

We support Goals 7 and Goal 8—a fossil fuel-free LA County with convenient, safe and affordable transportation that reduces car dependency. However, the targets and associated actions do not include sufficiently ambitious goals to reduce vehicle miles travelled (“VMT”). The Draft Plan’s aims for “[a]t least 15% of all trips will be by foot, bike, micromobility, or public transit.” (Draft Plan at 108.) This means that even if this target is met, in six years 85 percent of trips in the County will still be by car. The Draft Plan should call for much stronger measures to reduce single occupancy vehicle trips and VMT. The best way to do this is to limit development in areas far from existing cities that generate high VMT and limit new freeway development, which induces additional VMT.

The December 2018 Technical Advisory issued by the Governor’s Office of Planning and Research (the “VMT Report”)⁶ contains helpful guidance and analysis that could be

⁴ County of Los Angeles, *Los Angeles County General Plan Update Draft Environmental Impact Report* (June 2014), available at http://planning.lacounty.gov/assets/upl/project/gp_2035_deir.pdf.

⁵ County of Los Angeles, *Los Angeles County General Plan Update Final Environmental Impact Report* (March 2015), available at http://planning.lacounty.gov/assets/upl/project/gp_2035_lac-gpu-final-eir-final.pdf.

⁶ The VMT Report is available at http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

incorporated into the Draft Plan. For instance, the VMT Report states that land use decisions to reduce GHG emissions associated with the transportation sector are crucial in order to meet the GHG reductions set forth in SB 375. (VMT Report at 3.) The VMT Report further notes that California cannot meet its climate goals without curbing single-occupancy vehicle activity; land use patterns and transportation options will need to change to support reductions in VMT. (*Id.* at 10.) The VMT Report also proposes a “per capita” or “per employee” threshold of 15 percent below existing development as a reasonable threshold. (*Id.* at 10.) The VMT Report reiterates the conclusion of the California Air Resources Board that “there is a gap between what SB 375 can provide and what is needed to meet the State’s 2030 and 2050 goals.” (*Id.*)

The VMT Report confirms that VMT-intensive development impacts human health and the environment: “Human health is impacted as increases in vehicle travel lead to more vehicle crashes, poorer air quality, increases in chronic diseases associated with reduced physical activity, and worse mental health. Increases in vehicle travel also negatively affect other road users, including pedestrians, cyclists, other motorists, and many transit users. The natural environment is impacted as higher VMT leads to more collisions with wildlife and fragments habitat. Additionally, development that leads to more vehicle travel also tends to consume more energy, water, and open space (including farmland and sensitive habitat). This increase in impermeable surfaces raises the flood risk and pollutant transport into waterways.” (VMT Report at 3.) As such, if the County took strong steps to reduce VMT, it would have co-benefits of better air quality, decreased chronic disease, decreased wildlife-vehicle collisions, and less habitat fragmentation.

The VMT Report further states that roadway expansion projects can induce substantial VMT such that the environmental reviews should incorporate quantitative estimates of induced VMT. (VMT Report at 23.) The VMT Report explains that “[b]uilding new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, typically induces additional vehicle travel.” (*Id.* at 24.) The Plan should thus contain policies to discourage unnecessary highway development and instead focus infrastructure resources on alternative transportation projects.

H. Conclusion

Thank you for the opportunity to submit comments on the Draft Plan. Again, the Center strongly supports the goals of the Draft Plan. But if the goals in the plan are not supported by clear and enforceable policies, then the final Plan will be ineffective in achieving these goals.

Los Angeles County’s traffic jams, air pollution, fragmented wildlife habitat, and diminishing wildlands are a legacy of poor planning decisions made by local officials, often made under pressure from profit-driven developers. Unfortunately Los Angeles County and its Board have continued to approve costly, dangerous, and environmentally-damaging development despite (1) strong public opposition and (2) science confirming that such development is inappropriate in light of the climate crisis, extinction crisis, and the risks of building in fire-prone landscapes.

The Center urges the Chief Sustainability Office and Board to use this Plan as a means to establish a new vision for Los Angeles County that supports healthy communities and healthy wildlands. For such a vision to become reality, it must be supported by clear, binding, and legally enforceable policies. As long as such policies are vague or absent, developers will continue proposing—and officials will likely keep approving—projects that take the county in the wrong direction.

Please do not hesitate to contact the Center at the number or email listed below.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J.P. Rose', with a stylized flourish at the end.

J.P. Rose
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Los Angeles, California, 90017
jrose@biologicaldiversity.org

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(Attached on CD)

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Attachment 2

1 Hon. Nancy Case Shaffer
2 Superior Court for the County of Sonoma
3 3035 Cleveland Avenue, Suite 200
4 Santa Rosa, CA 95403
5 Telephone: (707) 521-6729

FILED
SUPERIOR COURT OF CALIFORNIA
COUNTY OF SONOMA

JUL 20 2017

BY M. Conley
Deputy Clerk

8 SUPERIOR COURT FOR THE STATE OF CALIFORNIA
9 COUNTY OF SONOMA

11 CALIFORNIA RIVERWATCH,
12 Petitioner,
13 v.
14 COUNTY OF SONOMA, ET AL.
15 Defendants.
16

Case No.: SCV-259242

ORDER GRANTING PETITION
FOR WRIT OF MANDATE

18 This matter was tried to the court on March 23, 2017, the Honorable Nancy Case
19 Shaffer presiding. The Law Office of Jack Silver and Jerry Bernhaut and Jack Silver
20 appeared on behalf of Petitioner; the Office of Sonoma County Counsel and Bruce Goldstein
21 and Verne Ball appeared on behalf of Respondent Sonoma County Regional Climate
22 Protection Authority. At the conclusion of the hearing, the court ordered further briefing.
23 The matter was deemed submitted on April 21, 2017, when all briefs were submitted.

24 I. SUMMARY OF RULING

25 The court finds that the Sonoma County Regional Climate Protection Authority's Final
26 Programmatic EIR ("the PEIR") for Climate Action 2020 and Beyond, its Climate Action
27 plan ("CAP") and the County of Sonoma's approval of the CAP violate CEQA, in that the
28 inventory of greenhouse gas emissions is based on insufficient information; the PEIR fails to

1 include effectively enforceable, clearly defined performance standards for the mitigation
2 measures regarding Green House Gas ("GHG") emissions, identified as "GHG Reduction
3 Measures;" and fails to develop and fully analyze a reasonable range of alternatives.

4 Accordingly, the approval of the PEIR was a prejudicial abuse of discretion by
5 Respondent. Given the lack of information and other material defects, as a matter of law the
6 PEIR cannot fulfill its basic CEQA purpose as an information document.

7 The court finds that there is insufficient information in the administrative record to
8 support the factual conclusion that the CAP will achieve its fundamental purpose of reducing
9 Respondent's countywide GHG emissions to the stated target of 25% below 1990 levels by
10 2020.

11 I. FACTS

12 Petitioner seeks a writ of mandate overturning Respondent's certification and of a
13 Final Programmatic EIR (the PEIR) for its Climate Action Aplan (CAP) and the approval of
14 the CAP on the grounds that the approvals violate CEQA.

15 A. The Project

16 The CAP Project is a planning-level document to guide analysis of the greenhouse gas
17 (GHG) impacts of future projects in the county.

18 In 2006, the California legislature passed AB 32, the Global Warming Solutions Act
19 (the Act) which, among other things, establishes a statewide goal of achieving 1990-level
20 GHG impacts by 2020.

21 CEQA Guideline 15183.5 allows agencies to adopt an overall long-range plan such as
22 a general plan or similar plan governing GHG analysis of subsequent projects. Respondent
23 adopted the CAP in accord with Guideline 15183.5 as a method of providing an overall *tiered*
24 *analysis* of GHG impacts in subsequent projects as a method of complying with the Act's
25 mandate. (1 AR 4, 10.)
26
27
28

1 of the California Supreme Court, “the heart of CEQA.” *Laurel Heights Improvement Assn. v.*
2 *Regents of the University of California* (1988) 47 Cal.3d 376, 392 (*Laurel Heights I*).

3 The ultimate mandate of CEQA is “to provide public agencies and the public in
4 general with *detailed information* about the effect [of] a proposed project” and to minimize
5 those effects and choose possible alternatives. (emphasis added) (PRC 21061.) The public
6 and public participation hold a “privileged position” in the CEQA process based on
7 fundamental “notions of democratic decision-making.” (*Concerned Citizens of Costa Mesa,*
8 *Inc. v. 32nd District Agricultural Association* (1986) 42 Cal.3d 929, 936.)

9 As a fundamental benchmark that generally applies to all issues in CEQA the court, is
10 that the court, in considering an issue, should look to see if “the public could discern... the
11 ‘analytic route the... agency traveled from evidence to action.’” (See *Al Larson Boat Shop*
12 *Inc. v. Bd. of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 749; see also *Topanga Assn.*
13 *for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 513-514, 522.)

14 The burden of investigation rests with the government and not the public. (*Lighthouse*
15 *Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1202.)

16 **C. Standard of review**

17 **1. Preliminary Basis for Standard of Review**

18 The standard of review is in dispute here. This dispute arises out of the divergent
19 characterizations of the issues by the parties.

20 Public Resources Code section 21168 provides that when a court reviews a
21 determination, finding, or decision of a public agency, "as a result of a proceeding in which
22 by law a hearing is required to be given, evidence is required to be taken and discretion in the
23 determination of facts is vested in a public agency ... the court shall not exercise its
24 independent judgment on the evidence but shall only determine whether the act or decision is
25 supported by substantial evidence in the light of the whole record." However, review is *de*
26 *novo* when the court must determine whether the agency has prejudicially abused its
27 discretion either by failing to proceed in the manner required by law or by reaching a decision
28 that is not supported by substantial evidence. (*Laurel Heights I, supra* 47 Cal.3d 392, fn.5.)

1 “[A] reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on
2 whether the claim is predominantly one of improper procedure or a dispute over the facts.”
3 *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40
4 Cal.4th 412, 435 (“*Vineyard*”).

5 As the court explained in *Vineyard*:

6 [A]n agency may abuse its discretion under CEQA either by failing to proceed in the
7 manner CEQA provides or by reaching factual conclusions unsupported by substantial
8 evidence. (§21168.5.) Judicial review of these two types of error differs significantly:
9 while we determine de novo whether the agency has employed the correct procedures,
10 “scrupulously enforc[ing] all legislatively mandated CEQA requirements” (*Citizens of*
11 *Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564...), we accord greater
12 deference to the agency's substantive factual conclusions. In reviewing for substantial
13 evidence, the reviewing court “may not set aside an agency's approval of an EIR on
14 the ground that an opposite conclusion would have been equally or more reasonable,”
15 for, on factual questions, our task “is not to weigh conflicting evidence and determine
16 who has the better argument.”(*Laurel Heights I, supra*, 47 Cal.3d at p. 393....)²

17 While courts must give deference as to substantive factual decisions, courts demand
18 strict compliance with “legislatively mandated CEQA requirements.” (*Citizens of Goleta*
19 *Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (*Goleta II*)). A Respondent is entitled
20 to no deference where the law has been misapplied, or where the decision was based on “an
21 erroneous legal standard.” (*East Peninsula Educ. Council, Inc. v. East Peninsula Unif. Sch.*
22 *Dist.* (1989) 210 Cal.App.3d 155, 165.)

23 Courts must ‘determine de novo whether the agency has employed the correct
24 procedures, “scrupulously enforc[ing] all legislatively mandated CEQA requirements”....’
25 (*Vineyard Area Citizens for Responsible Growth, supra*, 40 Cal.4th 435, citing *Goleta II*, 52
26 Cal.3d at 564.) *Failure to include required information is a failure to proceed in the manner*
27

28

² *Laurel Heights I* is *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 400 (*Laurel Heights I*

1 required by law and demands strict scrutiny. (*Sierra Club v. State Bd. of Forestry* (1994) 7
2 Cal.4th 1215, 1236; *Vineyard, supra*, 40 Cal.4th at 435.) The court reviews the PEIR here de
3 novo.

4 Nevertheless, agency actions are presumed to comply with applicable law unless the
5 petitioner presents proof to the contrary. (Evid. Code § 664; *Foster v. Civil Service*
6 *Commission of Los Angeles County* (1983) 142 Cal.App.3d 444, 453.) The petitioner in a
7 CEQA action thus has the burden of proving that an EIR is insufficient. (*Al Larson Boat*
8 *Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 740.)

9 **2. Standard of Review: Substantial-Evidence Test**

10 The substantial-evidence test applies to substantive issues in a decision certifying an
11 EIR. The court must uphold the decision if it is supported by substantial evidence in the
12 record as a whole. (*Bowman v. City of Petaluma* (1986) 185 Cal.App.3d 1065, 1075; see
13 *River Valley Preservation Project v. Metropolitan Transit Dev. Bd.* (1995) 37 Cal.App.4th
14 154, 166; see *Santa Teresa Citizen Action Group v. City of San Jose* (2003) 114 Cal.App.4th
15 689, 703. The “substantial evidence” test requires the court to determine “whether the act or
16 decision is supported by substantial evidence in the light of the whole record.” (*Chaparral*
17 *Greens v. City of Chula Vista* (1996) 50 Cal.App.4th 1134, 1143; *River Valley Preservation*
18 *Project v. Metropolitan Transit Develop. Bd.* (1995) 37 Cal.App.4th 154, 168.)

19 When applying the substantial-evidence standard, the court must focus not upon the
20 “correctness” of a report’s environmental conclusions, but only upon its “sufficiency as an
21 informative document.” (*Laurel Heights I* 47 Cal.3d at 393.) The findings of an administrative
22 agency are presumed to be supported by substantial evidence. (*Taylor Bus. Service, Inc. v.*
23 *San Diego Bd. of Education* (1987) 195 Cal.App.3d 1331.) The court must resolve reasonable
24 doubts in favor of the findings and decision. (*Id.*)

25 A claim that the EIR lacks *sufficient* information regarding an issue will be treated as
26 an argument that the EIR is not supported by substantial evidence. (*Barthelemy v. Chino*
27 *Basin Munic. Water Dist.* (1995) 38 Cal.App.4th 1609, 1620.) The petitioners in *Barthelemy*
28

1 asserted that it was a failure to proceed in the manner required by law where an EIR did not
2 include key information. The court rejected that argument.

3 **a) The Definition of “Substantial Evidence”**

4 Substantial evidence is “enough relevant information and reasonable inferences” to
5 allow a “fair argument” supporting a conclusion, in light of the whole record before the lead
6 agency. (14 CCR § 15384(a); PRC §21082.2; *City of Pasadena v. State of California* (2nd
7 Dist.1993) 14 Cal.App.4th 810, 821-822.) Other decisions define “substantial evidence” as
8 that with “ponderable legal significance,” reasonable in nature, credible, and of solid value.
9 (*Stanislaus Audubon Society, Inc., v. County of Stanislaus* (1995) 33 Cal.App.4th 144.)

10 Substantial evidence includes facts, reasonable assumptions predicated upon facts,
11 and expert opinion supported by facts. (PRC §21082.2(c); see also Guidelines 15064(g)(5),
12 15384.) It does not include argument, speculation, unsubstantiated opinion or narrative,
13 clearly incorrect evidence, or social or economic impacts not related to an environmental
14 impact. (Guideline 15384.)

15 **3. Prejudicial Abuse of Discretion**

16 A court may only issue a writ in a CEQA case for an abuse of discretion, including
17 making a finding without substantial evidence, if the error was *prejudicial*. (*Chaparral*
18 *Greens v. City of Chula Vista* (1996) 50 Cal.App.4th 1134, 1143.) The court must defer to the
19 agency’s substantive conclusions and uphold the determination unless. ((Id); see PRC §
20 21168, 21168.5, *Laurel Heights I, supra*, 47 Cal.3d at 392, fn.5; Remy, et al., Guide to the
21 California Environmental Quality Act (10th Ed.1999) Chapter XI (D), p.590.)

22 **4. Tiered EIRs**

23 As discussed further below, the PEIR here is a tiered EIR prepared in accordance with
24 Guideline 15183.5, which specifically allows for preparation of an overall, first-tier EIR and
25 planning document to govern analysis of GHG emissions and control GHG emissions in order
26 to comply with the statewide mandates to reduce GHG emissions.
27

28 A tiered EIR scheme allows an agency to produce a general EIR focusing on an
overall plan or policy and later conduct more limited, narrow subsequent EIR review for

1 individual projects within the broad plan or scope of the original, general EIR. (PRC 21068.5,
2 21093(a); Guideline 15152; *Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29, 36.)

3 “Tiering” is defined in PRC 21068.5 as:

4 coverage of general matters and environmental effects in an [EIR] prepared for a
5 policy, plan, program or ordinance followed by narrower or site-specific [EIRs] which
6 incorporate by reference the discussion in any prior [EIR] and which concentrate on
7 the... effects which (a) are capable of being mitigated, or (b) were not analyzed... in
8 the prior [EIR].

9 In other words, it is ‘a process by which agencies can adopt programs, plans, policies, or
10 ordinances with EIRs focusing on “the big picture” and can use streamlined CEQA review for
11 individual projects that are consistent with such... [first tier plans]....’ (*Koster v. County of*
12 *San Joaquin* (3d Dist. 1996) 47 Cal.App. 4th 29, 36.) The later EIRs need not repeat the
13 analysis or revisit the issues from the original EIR. (Guideline 15385.)

14 Guideline 15152 is the overall provision governing first-tier documents in general and
15 in its detailed discussion demonstrates clearly what such documents must do, what they must
16 include, and how they may be used.ⁱ Environmental impact reports “shall be tiered whenever
17 feasible, as determined by the lead agency.” (PRC 21093(b).) This “is needed in order to
18 provide increased efficiency in the CEQA Process. It allows agencies to deal with broad
19 environmental issues in EIRs at planning stage and then to provide more detailed examination
20 of specific effects....These later EIRs are excused by the tiering concept from repeating the
21 analysis of the broad environmental issues examined in the [first tier] EIRs.” (Discussion
22 following Guideline 15385.)

23 PRC 21094(c) states that “[f]or purposes of compliance with this section, an initial
24 study shall be prepared to assist the lead agency in making the determinations required by this
25 section.”

26 27 **C. GREENHOUSE GAS EMISSIONS**

28 The Global Warming Solutions Act (“the Act”) ‘implements deep reductions in
greenhouse gas emissions, recognizing that “[g]lobal warming poses a serious threat to the

1 economic well-being, public health, natural resources, and the environment of California...”
2 (Health & Saf.Code, § 38501, subd. (a).) Through this enactment, the Legislature has
3 expressly acknowledged that greenhouse gases have a significant environmental effect.’
4 (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 91
5 (*CEB*).) Guideline 15183.5 governs tiering and streamlining the analysis of GHG
6 emissions.ⁱⁱ Subdivision (b) sets forth the specific things such a plan should do.

7 **1. The Role of the CAP in Subsequent GHG Analysis**

8 A key issue is the ultimate role this CAP will play in subsequent GHG analysis of
9 future projects. Here neither party clearly addresses the intended role and effect of the CAP
10 in the review of subsequent projects.

11 The CAP at 1013-1016 generally indicates that the CAP is intended to eliminate any
12 need to conduct any GHG analysis in future discretionary projects that comply with the CAP.
13 Specifically, the introduction to the checklist of standards and measures, states that:

14 Discretionary projects that utilize the checklist, as modified by the individual agency,
15 and can demonstrate consistency with all applicable mandatory local or regional
16 measures in the CAP, can conclude that their impacts related to [GHG] emissions
17 would be less than significant under CEQA because the project would be consistent
18 with a qualified GHG reduction plan under... Guidelines Section 15183.5.

19 The introduction then quotes 15183.5(b) and (b)(2) in part as follows:

20 (b) Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a
21 project's incremental contribution to a cumulative effect is not cumulatively
22 considerable if the project complies with the requirements in a previously adopted
23 plan or mitigation program under specified circumstances.

24 ...

25 (b)(2) A plan for the reduction of greenhouse gas emissions, once adopted following
26 certification of an EIR or adoption of an environmental document, may be used in the
27 cumulative impacts analysis of later projects. An environmental document that relies
28 on a greenhouse gas reduction plan for a cumulative impacts analysis must identify

1 those requirements specified in the plan that apply to the project, and, if those
2 requirements are not otherwise binding and enforceable, incorporate those
3 requirements as mitigation measures applicable to the project.

4 It reiterates that the ‘significance threshold for projects using the checklist for streamlining is
5 “consistency with an applicable plan for the reduction of [GHG] emissions meeting the
6 requirements of...15183.5” ’ All of this indicates an intent that a future project complying
7 with this CAP and its standards and measures need include no independent GHG analysis.

8 **2. Respondent’s Contention That Petitioner Imposes Non-Existent Requirements**

9 Respondent argues, that Petitioner is improperly trying to impose requirements on the
10 CAP that do not exist in Guideline 15183.5. This argument is expressly stated at the start of
11 its brief and is repeated throughout its papers. This argument is itself groundless; it is
12 contrary to the fundamental purpose of CEQA requirements.

13 First, Respondent contends that the Guideline merely gives a list of what such a plan
14 “should” do; not what it “must” do. Although the Guideline does only state what such a plan
15 “should” include, (see end note ii, Guideline 15183.5), it expressly states that it is a tiering
16 mechanism and that it must comply with the standards for first-tier programs or plan EIRs. It
17 is *titled* “Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.” (Emphasis
18 added.) It begins by explaining that agencies may develop a GHG plan or standards in a plan
19 using a tiering method, governed by the standards for tiering. It states that agencies *may*
20 handle GHG analysis:

21 at a *programmatic* [i.e., first-tier] level, such as in a general plan, a long range
22 development plan, or a separate plan to reduce greenhouse gas emissions. *Later*
23 project-specific environmental documents *may tier from* and/or incorporate by
24 reference that existing programmatic review. Project-specific environmental
25 documents *may* rely on an EIR containing a programmatic analysis of greenhouse gas
26 emissions as provided in *section 15152 (tiering), 15167 (staged EIRs) 15168*
27 *(program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific*
28 *Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).*

1 (emphasis added.)

2 As noted above, the CAP also makes it clear that, as a first-tier document, it is to be
3 used in such a manner that, if complied with, will excuse the analysis of a future project from
4 revisiting GHG emissions. Therefore, the CAP, and any such plan prepared under 15183.5,
5 must meet the requirements for all first-tier documents and thus must impose effectively
6 enforceable requirements and measures with defied performance standards.

7 Second, although Respondent is correct that the requirements on which Petitioner
8 relies are not necessarily in the Guideline itself, they are applicable to *all* CEQA review and,
9 specifically, to first-tier documents, as explained above. Petitioner's further arguments, such
10 as that the CAP must provide a clear, complete, and accurate GHG "inventory," i.e., the
11 existing GHG emissions associated with activities in the county, are consistent with a
12 standard CEQA mandate, which is that an environmental document must present clear,
13 meaningful information sufficient to allow the agency and public to make an intelligent,
14 informed decision, or, stated another way, sufficient to make clear the analytic route of the
15 agency. (*Concerned Citizens of Costa Mesa, Inc. v. 32nd District Agricultural Association*
16 (1986) 42 Cal.3d 929, 936; *Al Larson Boat Shop Inc. v. Bd. of Harbor Commissioners,*
17 *supra*, 18 Cal.App.4th at 749; *Topanga Assn. for a Scenic Community v. County of Los*
18 *Angeles* (1974) 11 Cal.3d 506, 513-514, 522. Therefore, it must be based on substantial
19 evidence. (See section C.2., above.)
20

21 **3. Existing Conditions**

22 Petitioner first argues that the PEIR fails to describe existing conditions accurately
23 because it limits the range of emissions from vehicles miles traveled (VMT) associated with
24 land-use activities in the county and to and from 18 nearby regional locations. Petitioner
25 contends that the baseline or current GHG emissions level associated with the county should
26 include all VMT for trips associated with activities in the county, not only within the county
27 and to and from the 18 nearby regional locations used in the PEIR and that Respondent thus
28 understates the current GHG emissions. Respondent focuses on two general categories of
VMT omitted from the PEIR: VMTs generated by goods exported from the county to

1 locations beyond (produce, medical equipment, beer, and wine) , and tourist travel to Sonoma
2 County.

3 **a) CEQA Baselines and Quantifying Current GHG Levels**

4 Ordinarily, an EIR must clearly and consistently describe the baseline, which is
5 *normally* the *existing* environmental setting or conditions. The existing conditions, at the time
6 the notice of preparation ("NOP") is published, "normally constitute the baseline physical
7 conditions by which the lead agency determines whether an impact is significant." (Guideline
8 15125(a).) Guideline 15126.2(a) states that the agency "should normally limit its examination
9 to changes in the existing physical conditions in the affected area as they exist at the
10 time...environmental analysis is commenced."

11 Guideline 15183.5(b)(1)(A) sets forth special requirements for GHG first-tier plans
12 such as the CAP. Such plans are required to "[q]uantify greenhouse gas emissions, both
13 existing and projected over a specified time period, resulting from activities within a defined
14 geographic area."

15 Respondent notes that the ordinary requirements governing determination of the
16 "baseline" apply where there is a project that may alter this in of itself in order to determine
17 the extent of any impact which a project will have. (See Guideline 15126.2(a).)

18 **b) VMT Data**

19 The CAP explanation of how it determined the GHG inventory is found at AR 1050,
20 et seq. It used 2010 data because that year includes largely complete or complete activity data
21 for all sectors as needed to calculate GHG levels; this is not challenged by Petitioner. (See
22 AR 1052; Memorandum of Points and Authorities in Support of Petition for Writ of Mandate,
23 9:1-3.) The response to comment at AR 1084 explains that the VMTs were determined by
24 considering the travel in the county plus travel between the county and 18 external "traffic
25 analysis zones" ("TAZ").

26 Respondent relies on Guideline 15130(b) which provides that studies of cumulative
27 impacts are guided by "standards of practicality and reasonableness." According to Guideline
28 15364, "Feasible" means capable of being accomplished in a successful manner within a

1 reasonable period of time, taking into account economic, environmental, legal, social, and
2 technological factors.’ Thus, “[a]n evaluation of the environmental effects of a proposed
3 project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of
4 what is reasonably feasible The courts have looked not for perfection but for adequacy,
5 completeness, and a good faith effort at full disclosure.” (Guideline 15151; see also *Citizens*
6 *to Preserve the Ojai v. County of Ventura, supra*, 176 Cal.App.3d at 429.) Petitioner argues
7 that an agency is “not required to engage in sheer speculation as to future environmental
8 consequences [Citations], [but an] EIR [is] required to set forth and explain the basis for any
9 conclusion that analysis of the cumulative impact of offshore emissions [is] wholly infeasible
10 and speculative.” (*Citizens to Preserve the Ojai, supra*, 176 Cal.App.3d at 430.)

11 Respondent correctly argues that ultimately GHG emissions must be considered in
12 light of their cumulative worldwide impact because of their nature. The Supreme Court in
13 *Center for Biological Diversity v. California Dept. of Fish and Wildlife* (2015) 62 Cal.4th 204,
14 at 219-220, considered a challenge to an agency’s GHG analysis. The Court explained:

15 [W]e address two related aspects of the greenhouse gas problem that inform our
16 discussion of CEQA significance.

17 First, because of the global scale of climate change, *any one project's contribution is*
18 *unlikely to be significant by itself. The challenge for CEQA purposes is to determine*
19 *whether the impact of the project's emissions of greenhouse gases is cumulatively*
20 *considerable*, in the sense that “the incremental effects of [the] individual project are
21 considerable when viewed in connection with the effects of past projects, the effects of
22 other current projects, and the effects of probable future projects.” (§ 21083, subd.
23 (b)(2); see Guidelines, § 15064, subd. (h)(1).) “With respect to climate change, an
24 individual project's emissions will most likely not have any appreciable impact on the
25 global problem by themselves, but they will contribute to the significant cumulative
26 impact caused by greenhouse gas emissions from other sources around the globe. *The*
27 *question therefore becomes whether the project's incremental addition of greenhouse*
28 *gases is ‘cumulatively considerable’ in light of the global problem, and thus*

1 significant.” (Crockett, Addressing the Significance of Greenhouse Gas Emissions
2 Under CEQA: California's Search for Regulatory Certainty in an Uncertain World
3 (July 2011) 4 Golden Gate U. Env'tl. L.J. 203, 207–208 (hereafter Addressing the
4 Significance of Greenhouse Gas Emissions).)

5 Second, the global scope of climate change and the fact that carbon dioxide and other
6 greenhouse gases, once released into the atmosphere, are not contained in the local
7 area of their emission means that *the impacts to be evaluated are also global rather*
8 *than local. For many air pollutants, the significance of their environmental impact*
9 *may depend greatly on where they are emitted; for greenhouse gases, it does not.* For
10 projects, like the present residential and commercial development, which are designed
11 to accommodate long term growth in California's population and economic activity,
12 this fact gives rise to an argument that a certain amount of greenhouse gas emissions is
13 as inevitable as population growth. Under this view, a significance criterion framed in
14 terms of efficiency is superior to a simple numerical threshold because CEQA is not
15 intended as a population control measure.

16 (emphasis added.)

17 Consistent with the Supreme Court’s discussion in that case, the EIR here expressly
18 discusses the global nature of GHG emissions, explaining that “unlike other resource areas
19 that are primarily concerned with localized project impacts... the global nature of climate
20 change requires a broader analytic approach. Although this section focuses on GHG
21 emissions generated as a result of the CAP, the analysis considered them in the context of
22 potential state, national, and global GHG impacts.” (AR 314.) It also noted global GHG
23 concentrations. (AR 81, 106, 316.)

24 The PEIR analysis considered VMT for the county and the 18 TAZs in the region, and
25 only for automobile traffic and “emissions that local governments have primary influence or
26 control over.” (AR 85.) It did not consider travel by other means such as by airplane or
27 emissions over which the local entities have no direct control. (AR 85.) The PEIR explained
28

1 at AR 82 and 85 that it was relying on the International Council for Local Environmental
2 Initiatives (ICLEI) Protocol and that:

3 the ICLEI Community Protocol does not require air travel emissions to be included in
4 the basic emissions necessary for protocol-compliance GHG inventories because it
5 recognizes that local governments have less control over such sources as air travel and
6 that information is often not available to precisely describe an airport's emissions to a
7 specific community.

8 Similarly, it noted that methodologies exist to estimate emissions further afield but associated
9 with local activities but rejected these methodologies because the information might be
10 difficult to obtain or are not "common" approaches. (AR 85-86.) For example, the response
11 to the comment at AR 85-86 stated:

12 [w]hile there are methodologies to estimate upstream emissions..., these
13 methodologies are commonly used to prepare what is known as a "consumption-
14 based" inventory, which estimate the life cycle "carbon footprint" of everything
15 households (and...other consumers) consume. There are also methodologies to
16 estimate "downstream" emissions associated with the transportation, end use, and
17 disposal of goods produced in a jurisdiction, but such methodologies require highly
18 detailed information about the entire downstream supply chain, including the ultimate
19 geographical destination of goods that can be difficult to come by, especially if such
20 data is privately held. While one could estimate emissions using a consumption-based
21 approach of a "downstream" emissions method, these are not the common approach
22 used for community emissions, or national emissions at present, and if used, would
23 make it impossible to compare regional inventories.

24 As a result, the response contends, "nearly every" national, state, and local agency preparing a
25 CAP has used the "activity-based" approach to calculate and define the GHG inventories.
26 (AR 86.) Respondent asserts that by avoiding the methodologies which include upstream or
27 downstream data, and instead using the ICLEI Protocol, the CAP inventory "can be compared
28 to those other communities, using a common standard..." (Ibid.)

1 The question before the court is whether there is information in the record showing
2 that Respondent might or might not feasibly have included the additional data as Petitioner
3 contends, or whether Respondent did not need to include it.

4 Respondent's primary argument that it did not need to include additional emissions
5 estimates is based on its assertion that CEQA only requires an agency to do what is feasible,
6 and further that it need not, and should not, engage in speculation over data that is
7 unknowable. The basic that a public agency is only required to do what is feasible, discussed
8 above, is correct, but Respondent has not persuasively shown that it defeats Petitioner's
9 arguments regarding the need for more information about MVT. The response to comments
10 at AR 84-86 expressly admits that there are methodologies to quantify the additional sources
11 of GHG emissions Petitioner identifies, but did not use them because they are not
12 "commonly" used or the information "can be difficult to come by." This argument does not
13 establish that Respondent had substantial evidence to support its approval.

14 The record, including the admissions in the PEIR shows that Respondent had a
15 feasible ability to include the additional GHG data. Respondent compares the data used in
16 this CAP to that used by other agencies. (AR 86; generally AR 84-86.) This is a logical
17 explanation for employing the ICLEI Protocol used, but it does not demonstrate that it was
18 "infeasible" to obtain the additional MVT data, especially given that Respondent
19 acknowledges that the methodologies exist.

20 Had the EIR explained that it was unable to obtain the necessary information, or that
21 there were no methodologies that it could have used to obtain/include it, Respondent's would
22 have been justified in failing to obtain this data. However, here, Petitioner complains that
23 Respondent appears merely to have avoided including greater, more complete, information
24 based on the assumption that it would be "too much work."

25 The court grants the petition on this point.

26 **D. MITIGATION MEASURES**

27 Petitioner also argues that Respondent failed to adopt "definite, clearly defined and
28 enforceable" mitigations measures. It contends that at least some of the mitigation measures

1 and standards it sets forth are unclear, vague, and not fully enforceable. Petitioner points out
2 that the EIR concludes that the CAP would be “beneficial” and would thus support applicable
3 regulatory plans for reducing GHG emissions, so, it contends, no mitigation for GHG
4 emissions is necessary. (AR 204.)

5 Respondent argues that the CAP is not intended as a mitigation measure. No
6 mitigation is needed because it is a plan to reduce GHG emissions in subsequent projects.

7 What Petitioner contends is not that the CAP and EIR need to adopt mitigation
8 measures for the CAP itself, but instead that the CAP, in setting forth purported mitigation
9 measures for future analysis and handling of GHG emissions, fails to present sufficient clearly
10 defined and enforceable mitigation measures and standards.

11 Respondent points out this is not a “project” in the sense of an activity that will do
12 anything that might create GHG emissions but instead is a plan for handling analysis and
13 mitigation of GHG emissions in future projects. Therefore, there is clearly nothing about this
14 Project to mitigate. Petitioner's contention that the PEIR should imposing sufficiently defined
15 and enforceable mitigations measures, is a different issue.

16 Guideline 15183.5(b)(1)(D) and (E) are instructive. Subdivision (D) states that the
17 plan should “[s]pecify measures or a group of measures, including performance standards,
18 that substantial evidence demonstrates, if implemented on a project-by-project basis, would
19 collectively achieve the specified emissions level. Subdivision (E) states that the plan should
20 “[e]stablish a mechanism to monitor the plan's progress toward achieving the level and to
21 require amendment if the plan is not achieving specified levels.” (Emphasis added.)
22

23 **1. Role and Purpose of Mitigation Measures in CEQA**

24 Mitigation measures are needed, even required, where a project may have a significant
25 impact and the purpose of the measures is to reduce any impact to less than significant. (PRC
26 21003.1(b); Guideline 15002(a)(3).)

27 **2. Deferral of Mitigation**

28 In general, it is improper for an agency to rely on *deferred* mitigation. (*Sundstrom v.*
County of Mendocino (1988) 202 Cal.App.3d 296, 306; *Defend the Bay v. City of Irvine*

1 (2004) 119 Cal.App.4th 1261, 1275-1276.) An agency cannot find a significant impact to be
2 mitigated to a less-than-significant level based on a deferred mitigation measure. (*Sundstrom*
3 *v. County of Mendocino, supra*, 202 Cal.App.3d at 306. It is a violation of CEQA when an
4 agency “simply requires a project applicant to obtain a biological report and then comply with
5 any recommendations that may be made in the report. [Citation.]” (*Defend the Bay v. City of*
6 *Irvine* (2004) 119 Cal.App.4th 1261, 1275; see also *Endangered Habitats League, Inc. v.*
7 *County of Orange* (2005) 131 Cal.App.4th 777, 793.)

8 “Deferral of the specifics of mitigation is permissible where the local entity commits
9 itself to mitigation and lists the alternatives to be considered, analyzed and possibly
10 incorporated in the mitigation plan.” (*Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th
11 1261, 1275-1276; see also *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d
12 1011, 1028-1030.) This applies where “mitigation is known to be feasible, but where the
13 practical considerations prohibit devising such measures early,” so that “[w]here future action
14 to carry a project forward is contingent on devising means to satisfy such criteria, the agency
15 should be able to rely on its commitment as evidence that significant impacts will in fact be
16 mitigated.” (*Sacramento Old City Assn., supra*, 229 Cal.App.3d at 1028-1029.)

17 Because of the nature of first-tier tier EIRs, in particular, deferral of the specifics of
18 mitigation measures, as long as they contain clear performance standards, is particularly
19 appropriate and logical. (See, e.g., *Rio Vista Farm Bureau Center v. County of Solano* (1st
20 Dist.1992) 5 Cal.App.4th 351 (“*Rio Vista Farm Bureau*”); *Al Larson Boat Shop Inc. v. Bd. of*
21 *Harbor Commissioners, supra*, 18 Cal.App.4th 729.) In *Rio Vista Farm Bureau*, a first-tier
22 “program EIR” serving as “primary planning document for hazardous waste management in
23 the county” was found to contain sufficient mitigation measures adopted as policies to guide
24 subsequent projects. The court rejected a challenge based on the assertion that the mitigation
25 measures were “vague, inconclusive, and even inconsistent,” finding the measures sufficient
26 “given the broad, nebulous scope of the project under evaluation.” (*Rio Vista Farm Bureau,*
27 *supra*, 5 Cal.App.4th at 376.) The court found that the specificity of mitigation measures
28

1 should be proportionate to the specificity of the underlying project, which in that case was a
2 broad planning document to guide later site-specific projects.

3 The court in *Coastal Hills Rural Preservation v. County of Sonoma* (2016) 2
4 Cal.App.5th 1234, 1258, upholding the trial court’s order denying a CEQA petition for writ of
5 mandate, explained that although “CEQA usually requires mitigation measures to be defined
6 in advance” and not deferred, “deferral [of mitigation measures] is permitted if, in addition to
7 demonstrating some need for deferral, the agency (1) commits itself to mitigation; and (2)
8 spells out, in its environmental impact report, the possible mitigation options that would meet
9 “specific performance criteria” contained in the report.”

10 In *Sundstrom, supra*, the county required future hydrological studies as conditions of a
11 use permit and required that any mitigation measures that the study suggested would become
12 mandatory. This was held to be improper because the impacts and mitigation measures were
13 not determined.

14 The court in *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359 found an Negative
15 Declaration defective because it improperly relied on deferred formulation of specific
16 mitigation measures. There, the city required the applicant to comply with any existing
17 ordinance protecting the Stephens’ kangaroo rat and allowed the city to require a biological
18 report on the rat and compliance with any recommendations in the report. The court found
19 this to be insufficient because it, like the approval in *Sundstrom*, was based on compliance
20 with a report that had not yet even been performed.

21 By contrast, the court in *Schaeffer Land Trust v. San Jose City Council* (1989) 215
22 Cal.App.3d 612, upheld an Negative Declaration for a general plan amendment for a parcel of
23 land which, regarding traffic issues, required any future development to comply with
24 applicable “level of service” standards. Unlike the other cases mentioned above, here the
25 mitigation measures were delayed because the development and impacts were not concrete,
26 but the mitigation was fixed to set standards which, by definition, ensured that there would be
27 no significant impact. Mitigation with deferred specifics was found to satisfy CEQA where
28 the lead agency had committed to mitigation meeting a specified range of criteria and project

1 approval required the developer to obtain permits and adopt seven itemized measures in
2 coordination and consultation with relevant agencies. *Defend the Bay, supra*, 1276.

3 In *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th
4 777, 794, the court found a mitigation measure that required replacement habitat preservation
5 to satisfy CEQA even though the specifics were not fully determined but where the approval
6 set forth *specific possibilities and parameters that the mitigation needed to meet*.

7 **3. The Role of the CAP in Subsequent GHG Analysis**

8 The key issue here in determining the sufficiency of mitigation measures is the role
9 this CAP is intended to play in a GHG analysis of future projects. As noted above, one aspect
10 of first-tier plans and EIRs is that they may obviate the need for later projects falling within
11 their ambit to conduct new CEQA review on certain issues where the future projects comply
12 with the first-tier plan. Any later discretionary project that complies with its criteria, such as
13 the standards and requirements it imposes, would not need to do further study of GAG
14 emissions. Accordingly, the standards and requirements the CAP imposes for reducing or
15 minimizing GHG emissions must be considered mitigation measures for purposes of CEQA
16 and must comply with the CEQA requirements. This means that they must set forth clearly
17 defined and enforceable performance standards to be met. Because of the intended
18 streamlining, Petitioner correctly contends that the performance standards and measures set
19 forth the PEIR must be clear, definite, and enforceable.
20

21 Here also, Respondent contends that Petitioner is imposing requirements and standards
22 that do not exist in Guideline 15183.5. Respondent ignores the fundamental CEQA
23 requirements which underlie Petitioner's claims. Respondent contends that Guideline 15183.5
24 does not require mitigation measures for the CAP or within the CAP imposed on future
25 projects. This position not only conflicts with 15183.5 itself, it is fundamentally contrary to
26 the principles of CEQA review.

27 It is axiomatic in CEQA that any measures or requirements imposed be sufficiently
28 defined to be enforceable and that, in the context of tiering, any subsequent project may avoid
analysis of an issue only if it complies with a first-tier document that satisfies CEQA

1 requirements. As noted above, PRC 21094(a) states that where a prior first-tier EIR has been
2 certified and applies to a subsequent project, the agency “*need not examine those effects*
3 *which ... were either (1) mitigated or avoided... as a result of the prior [EIR] or (2) examined*
4 *at a sufficient level of detail in the prior [EIR] to enable those effects to be mitigated or*
5 *avoided by site specific revisions, the imposition of conditions, or by other means....”*

6 Accordingly, to obviate the need to address an issue or impact as part of a later project’s
7 CEQA review, a first-tier plan or program document and EIR must sufficiently analyze that
8 issue or impact to determine that compliance with the document and its mitigations will
9 mitigate or avoid the impact. The mitigation requirements in a first-tier document for
10 avoiding or mitigating the impact *must* include performance standards that are mandatory and
11 include specific, and effectively enforceable performance standards. (*Coastal Hills Rural*
12 *Preservation v. County of Sonoma* (2016) 2 Cal.App.5th 1234, 1258.)

13 The prior discussion of Guideline 15183.5 addresses the impact of tiering
14 mechanisms. Again, the CAP, and any such plan prepared under 15183.5, must meet the
15 requirements for all first-tier documents and thus must impose effectively enforceable
16 requirements and measures with defied performance standards.

17 Further, Guideline 15183.5 *does require the CAP to impose mitigation measures on*
18 *future projects. As both Respondent and the CAP itself acknowledge, and as noted above,*
19 *subdivision (b) expressly states that “a lead agency may determine that a project's incremental*
20 *contribution to a cumulative effect is not cumulatively considerable if the project complies*
21 *with the requirements in a previously adopted plan or mitigation program under specified*
22 *circumstances.” This plan or mitigation program, i.e., the CAP, according to (b)(2), “may be*
23 *used in the cumulative impacts analysis of later projects” which clearly means that it need not.*
24 *However, (b)(2) continues to state that if it is so used for a later project, that project must*
25 *comply with the requirements and mitigation measures from the CAP. Once again, in the*
26 *Guideline’s words, a later project that in fact “relies on [the CAP] for a cumulative impacts*
27 *analysis must identify those requirements specified in the plan that apply to the project, and, if*
28

1 *those requirements are not otherwise binding and enforceable, incorporate those*
2 *requirements as mitigation measures....”*

3 In countering Petitioner's complaint that some of the so-called measures or standards
4 are too vague or loose or ill-defined to be properly enforceable, Respondent asserts that this
5 will be “cured” because Guideline 15183.5(b)(2) states that any requirements that are not
6 “binding and enforceable” will be incorporated as mitigation measures in the project’s CEQA
7 document. This “interpretation” does not withstand scrutiny. As explained above, a first-tier
8 document, in order to be used to avoid revisiting analysis of an issue in a later project, must
9 have sufficiently analyzed the issue and found any significant impact to be mitigated or
10 avoided by complying with the document. That means that any requirement, such as
11 mitigation, must have sufficiently defined, clear, and mandatory performance standards to be
12 effectively enforceable and to have predictable results. If the requirements or measures are so
13 ill-defined as to be unenforceable as a practical matter, and effectively meaningless, merely
14 “incorporating” them into the later project’s CEQA document will obviously not fix that
15 problem. What the state in the Guideline must mean, therefore, is not that an ineffective
16 measure may simply be incorporated into a later project’s document, as Respondent asserts,
17 but that a measure or requirement must be incorporated in the document *if it is not enforced*
18 *independently, or through some other mechanism.*

20 **4. The Measures in the CAP**

21 The CAP sets forth requirements and standards or mitigation measures at AR 1015-
22 1048.

23 Respondent primarily argues that under Guideline 15183.5(b)(2), any measure which
24 the CAP imposes and which is “not otherwise binding and enforceable” must be incorporated
25 into future projects. As addressed above, this argument is not meritorious. Guideline
26 15183.5(b)(2) expressly requires that:

27 *"An environmental document that relies on a greenhouse gas reduction plan for a*
28 *cumulative impacts analysis must identify those requirements specified in the plan that*
apply to the project, and, if those requirements are not otherwise binding and

1 *enforceable, incorporate those requirements as mitigation measures* applicable to the
2 project. *If there is substantial evidence that the effects of a particular project may be*
3 *cumulatively considerable notwithstanding the project's compliance with the specified*
4 *requirements in the plan for the reduction of greenhouse gas emissions, an EIR must*
5 *be prepared for the project.*

6 (emphasis added.)

7 Petitioner singles out three of the specific measures or requirements in the CAP for
8 discussion as demonstrating a lack of meaningful enforceability and clear standards.

9 **a) 5-R4 (AR 1026)**

10 The first is 5-R4 (AR 1026.) This “trip-reduction ordinance” requires employers with
11 50+ employees to offer one of several options to employees in order to reduce GHG
12 emissions: “pre-tax transit expenses, transit or vanpool subsidy, free or low cost shuttle, *or an*
13 *alternative benefit.*” (Emphasis added.) It is the latter to which Petitioner objects, arguing
14 that it is vague and undefined either in what it must be like or what it must achieve, so that
15 there is no way to enforce this. As a result, Petitioner contends, a project could offer as
16 “alternative benefit” which no-one can at this point predict, and argue that it need not do GHG
17 analysis because it has “complied” with this measure. Respondent contends that an
18 alternative of purchasing GHG offsets is considered and this is correct but this is not the
19 definition of “an alternative benefit,” which is left open and could be anything. Petitioner is
20 correct on this point.

21 Respondent contended that Petitioner failed to exhaust administrative remedies on this
22 specific issue.

23 According to PRC section 21177, “[a] person shall not maintain an action or
24 proceeding unless that person objected to the approval of the project orally or in writing
25 during the public comment period provided by this division or prior to the close of the public
26 hearing on the project before the filing of the notice of determination.” This does not,
27 however, bar an association or organization formed after approval from raising a challenge
28 which one of its constituent members had raised, directly or by agreeing with or supporting

1 another's comments. (PRC section 21177(c).) Moreover, someone may file a legal challenge
2 based on an issue as long as "any person" raised that issue during the review process. PRC
3 section 21177(a); see *Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 267-
4 268. It also does not apply to any grounds of which the agency did not give required notice
5 and for which there was no hearing or opportunity to be heard. PRC section 21177(e).

6 A party challenging decision under CEQA cannot, to exhaust administrative remedies,
7 rely merely on "general objections" or "unelaborated comments." *Sierra Club v. City of*
8 *Orange* (2008) 163 Cal.App.4th 523, 535; *Coalition for Student Action v. City of Fullerton*
9 (1984) 153 Cal.App.3d 1194, 1197. However, "[l]ess specificity is required to preserve an
10 issue for appeal in an administrative proceeding than in a judicial proceeding...." *Citizens*
11 *Association for Sensible Development of Bishop Area v. County of Inyo* (1985) 172
12 Cal.App.3d 151, 163.

13 Petitioner responds that only the substance of the issue must be raised at the
14 administrative level, relying on *Save Our Residential Environment v. City of West Hollywood*
15 (1992) (Cal.App.4th 1745, 1750.) And further that less specificity is required to exhaust an
16 issue in an administrative proceeding than in a judicial one, relying on *Woodward park*
17 *Homeowners Assn. v. City of Fresno* (2007) 150 Cal.app.4th 683, 712 and *Brothers Real*
18 *Estate Group v. City of Los Angeles* (2008) 153 Cal.App.4th 1385, 1395. The court finds that
19 Petitioner did articulate this as a basic contention in the underlying administrative
20 proceedings. (AR 66 and AR 67.)

21 **b) 4-L-1 (AR 1024)**

22 Petitioner's attack 4-L-1, at AR 1024, which requires consistency with applicable
23 "adopted policies" on mixed-use and transit-oriented development, such as zoning codes,
24 general plans, etc., and states that agencies must "support mixed use [sic] development in
25 city-centers and transit-oriented development locations through their General Plans, etc." is
26 not persuasive. Petitioner contends that this is too vague because "mixed-use" has been
27 interpreted to allow hotels and tourist destinations built downtown or near rail stations.
28 Petitioner focuses on one portion of this requirement that is open-ended. Nothing indicates

1 that the type of use that could be allowed in a mixed-use development, whether store,
2 museum, eatery, office, or hotel, has any bearing on GHG emissions. Petitioner cites no
3 evidence or explanation in support of this claim and does not explain how this is material.
4 What matters is that there are clear, adopted standards mandating such development and
5 Petitioner does not challenge that portion of the measure at all.

6 It is possible that the measure could be found too vague and Petitioner may be
7 challenging it on that basis as well. Petitioner refers to it when mentioning how an
8 “undefined alternative... lacks the required specificity” and Petitioner again mentions it on the
9 following page with reference to “tentative plans” for future mitigation in ill-defined
10 subsequent regulation to be adopted. This, merely requires each jurisdiction to “identify such
11 appropriate areas and include unspecified policies and incentives to encourage development
12 near high-quality transit service.” It requires the jurisdiction to define requirements and
13 identify potential incentives, giving a list of the types that these “may include,” the last being
14 “other related items.” Again, this does not give any clear performance standards regarding
15 how to achieve this or what the parameters are. As Petitioner argues, for the third measure,
16 the court in *Communities for a Better Environment v. City of Richmond*, 184 Cal.App.4th 70,
17 92, found a measure insufficiently specific where it required reduction of mobile emission
18 sources though “transportation smart” development because “reliance on tentative plans for
19 future mitigation... significantly undermines CEQA’s goals of full disclosure and informed
20 decision making.” Under this analysis, this measure is also defective.

21
22 **c) 2-L-1 (AR 1021)**

23 Lastly, Petitioner argues that 2-L-1, at AR 1021, is defective. This measure mandates
24 that the project “comply with local requirement(s) for rooftop solar PV on new residential
25 development. It states that each jurisdiction “will define which new development must
26 provide rooftop solar [PV] by defining qualifying criteria... and the amount of solar
27 required...” As Petitioner argues, this sets no standards at all, just like 4-L-1, but instead
28 merely general principles and future possibilities. This violates CEQA.

1 Petitioner further argues that the measures in general do not guarantee any likelihood
2 of implementation. This is clear from the ones discussed above. Petitioner cites 1-R2 as
3 another example. It states that two named agencies “will work with the participating
4 communities to implement energy efficient retrofits. Actions may include: Implementing a...
5 weatherization program, expanding energy efficiency outreach/education campaigns...,
6 promoting the smart grid,” etc. Again, none of this goes beyond stating wishful thinking,
7 good intentions, and an intent to “work” with others. Measures that fall into this category
8 violate CEQA as well.

9 Petitioner also generally attacks the measures as lacking meaningful enforceability.
10 Petitioner also contends that of all of them, only 1-S1 and 1-S2 are actually enforceable
11 because they govern building energy and lighting efficiency, both controlled by state
12 regulation. The court finds a few others in addition to 1-S1 and 1-S2 to be similarly
13 enforceable. These include 1-L1, based on Windsor’s building code, 1-L2, requiring LED
14 lights in new development.

15 Aside from those few, Petitioner is correct that most are not enforceable, either
16 because they are too vague and lacking in meaningful mandatory requirements such as those
17 already discussed, which only “require” some “alternative” that is not specified or governed
18 by set parameters. Others, such as 1-L3 through 2-L2, state mitigation measures but then state
19 that these are “voluntary,” or “encouraged,” or only necessary where “applicable” based on
20 circumstances or criteria that are not defined. Others again rely on other jurisdictions such as
21 the cities creating applicable requirements that in some unspecified manner promote the
22 stated, vague, open-ended policies that lack any parameters or requirements. These are too
23 numerous to list them all here but this general characteristic dominates almost all of the
24 measures from what I have read.

25 Accordingly, the court grants the petition with respect to mitigation. Because the
26 record does not provide adequate information about extraterritorial emissions the agency and
27 the public could not and the court cannot determine whether the CAP would achieve its stated
28 goal to reduce GAG impacts to pre-1990 levels by 2020.

1 **E. ALTERNATIVES**

2 Petitioner asserts that Respondent violated CEQA by adopting as the “environmentally
3 superior alternative” the Zero Net Energy Buildings Alternative because it fails to address
4 GHG emissions from transportation while Respondent declined to evaluate an alternative with
5 a moratorium on, or significant reduction of, new or expanded vineyards, wineries and tourist
6 destinations. (AR 94; 426-427.)

7 Respondent contends that the analysis is sufficient because Petitioner believes that
8 reducing or stopping growth, and in particular growth that involves travel of people and goods
9 to and from the county, is necessary, and Petitioner cannot impose such mandates on R;
10 Respondent considered a range of alternatives; and choosing the moratorium alternative
11 would require the court to “dramatically substitute” its judgment for Respondent’s.

12 CEQA requires all EIRs to consider alternatives to the project. (*Friends of the Old*
13 *Trees v. Dept. of Forestry & Fire Protection* (1st Dist.1997) 52 Cal.App.4th 1383, 1393-1395
14 (*Friends of Old Trees*.)

15 **1. Importance and Central Role of Alternatives Analysis**

16 PRC section 21002 states that “it is the policy of the state that public agencies should
17 not approve projects as proposed if there are feasible alternatives or feasible mitigation
18 measures available which would substantially lessen the significant environmental effects...”
19 An agency may not approve a project that will result in significant impacts *unless it first finds*
20 *that mitigation measures or alternatives are infeasible*. (PRC section 21081; Guidelines
21 15091, 15093.)

22 The Supreme Court decided that considering alternatives is one of the most important
23 functions of an EIR. (*Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 197.) In fact, “[t]he
24 core of the EIR is the mitigation and alternatives sections.” (*Citizens of Goleta Valley v. Bd.*
25 *of Supervisors* (1990) 52 Cal.3d 553, 564, 566 (*Goleta II*.)

26 Without evidence regarding why the alternatives are insufficient to meet the project or
27 CEQA goals, meaningful analysis is impossible. An EIR must “explain in meaningful detail
28 the reasons and facts supporting [the] conclusion.” (*Marin Municipal Water Dist. v. KG Land*

1 *Corp. California* (1991) 235 Cal.App.3d 1652, 1664.) Failure to provide sufficient analysis
2 or alternatives makes it impossible for the court to “intelligently examine the validity of the...
3 action.” (*Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d
4 506, 513-514, 522.)

5 The alternatives must be discussed in the EIR itself, provided for public review, and
6 subject to analysis, and the agency cannot cure defects by providing analysis in its official
7 response. (See *Friends of the Old Trees, supra*, 52 Cal.App.4th at 1403-1405.)

8 **2. Authority on Analyzing Alternatives and Feasibility**

9 The discussion should evaluate the relative merits of each alternative 14 CCR
10 §15126.6(a). Respondents need not analyze or adopt alternatives that are not feasible. 14
11 CCR ' 15126.6(c), (f); *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553,
12 564, 566 (*Goleta II*). However, the document *must* consider alternatives that *are* feasible.
13 *EPIC v. Johnson* (1985) 170 Cal.App.3d 604, 610; *Friends of the Old Trees, supra*, 52
14 Cal.App.4th 1404.

15 Ultimately, determining if alternatives are suitable involves a three-part test governed
16 by the “rule of reason” as set forth in Guideline 15126.6. (See *Citizens of Goleta Valley v.*
17 *Bd. of Supervisors* (1990) 52 Cal.3d 553, 564, 566 (*Goleta II*); *Save San Francisco Bay*
18 *Association v. San Francisco Bay Conservation and Development Commission* (1992) 10
19 Cal.App.4th 908, 919.) The analysis must consider alternatives that 1) may “attain most of the
20 basic objectives of the project,” 2) reduce or avoid the project’s impacts, and 3) are
21 “potentially feasible.” (Guideline 15126.6(a), (f).)

22 The analysis of alternatives is required to set forth facts and “*meaningful analysis*” of
23 these alternatives rather than “just the agency’s bare conclusions or opinions.” (*Laurel*
24 *Heights I, supra*, 47 Cal.3d 376, 404-405; *Goleta II, supra*, 52 Cal.3d 569; *Preservation*
25 *Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1353.) All analysis must
26 include “detail sufficient to enable those who did not participate... to understand and to
27 consider meaningfully” the alternatives. (*Laurel Heights I, supra*, 404-405.)
28

1 As notes above, “feasible” means able to be “accomplished in a successful manner
2 within a reasonable period... taking into account economic, environmental, social, and
3 technological factors.” (PRC section 21061.1.)

4 When the agency determines that alternatives are infeasible, it “shall describe the
5 specific reasons for rejecting identified...project alternatives.” (Guideline 15091(a), (c).) The
6 analysis of alternatives is required to set forth facts and “*meaningful analysis*” of these
7 alternatives rather than “just the agency’s bare conclusions or opinions.” (*Laurel Heights I*,
8 *supra*, 47 Cal.3d 376, 404-405; *Goleta II, supra*, 52 Cal.3d 569; *Preservation Action Council*
9 *v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1353.) All analysis must include “detail
10 sufficient to enable those who did not participate... to understand and to consider
11 meaningfully” the alternatives. (*Laurel Heights I, supra*, 404-405.)

12 The agency must make findings identifying specific considerations making an
13 alternative infeasible and the specific benefits of the Project that outweigh the relative harm.
14 (PRC § 21002.1(b), 21081, Guideline 15092(b); *Preservation Action Council, supra*, 1353.)

15 On the other hand, as usual, the requirement is one of reasonableness and a “crystal
16 ball” inquiry is not necessary. (*Residents Ad Hoc Stadium Committee v. Bd. of Trustees* (3d
17 Dist.1979) 89 Cal.App.3d 272, 286.) The key, as with most aspects of an EIR is that the
18 agency must provide enough information about the analytical path taken to allow the court to
19 “intelligently examine the validity of the administrative action.” (*Topanga Assn. for a Scenic*
20 *Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 513-514, 522.) However, no
21 “ironclad rule” other than the “rule of reason” governs the decision. (Guideline 15126.6(a).)

22 An agency cannot find an alternative infeasible simply because the developer does not
23 want to do it. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 601.)
24 In fact, the analysis must include alternatives that are reasonable “even if they substantially
25 impede the project or are more costly.” (*San Bernardino Valley Audubon Society v. County of*
26 *San Bernardino* (1984) 155 Cal.App.3d 738, 750; see also *Preservation Action Council v.*
27 *City of San Jose* (2006) 141 Cal.App.4th 1336.)
28

1 An EIR or decision thereon also cannot merely state that an alternative is infeasible
2 simply because it is too expensive or will not lead to sufficient return without providing
3 supporting analysis. (*Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th
4 1336.) “The fact that an alternative may be more expensive or less profitable is not sufficient
5 to show that the alternative is financially infeasible. What is required is evidence that the
6 *additional costs or lost profitability* are sufficiently severe as to render it impractical to
7 proceed with the project.” (*Citizens of Goleta Valley v. Board of Supervisors* (1988) 197
8 Cal.App.3d 1167, 1181; *Uphold Our Heritage, supra*, 599; (emphasis added).)

9 An alternative should be capable of “substantially lessening” adverse impacts but it
10 need only have fewer impacts and it need not be impact free. PRC 21002; Guideline
11 15126.6(a); *Citizens of Goleta Valley v. Board of Supervisors (Goleta II)* (1990) 52 Cal.3d
12 553, 566.

13 **3. Reasonable Range**

14 An EIR must describe a reasonable range of alternatives to the proposed project or its
15 location that would feasibly achieve most of the project’s objectives, while reducing or
16 avoiding any of its significant effects. (Guideline 15126.6(a), (d).)

17 The EIR “shall focus on alternatives... which are capable of avoiding or substantially
18 lessening any significant effects of the project, even if these alternatives would impede to
19 some degree the attainment of the project objective, or would be more costly.” (Guideline
20 15126.6(b).)

21 The EIR must set forth the alternatives necessary to permit a reasoned choice and in a
22 manner that will allow “meaningful evaluation.” (Guideline 15126.6(a), (d), (f); *Goleta II*;
23 see also *Laurel Heights I, supra*; see also *San Bernardino Valley Audubon Soc., Inc. v. County*
24 *of San Bernardino* (1984) 155 Cal.App.3d 738, 750-751 (the detail must allow a reasonable
25 choice “so far as environmental aspects are concerned.”).)

26 If an EIR excludes certain alternatives, it should identify the alternatives and set forth
27 the reasons. (*Goleta II, supra*, 569; Guideline 15126.6(b).) The court in determining if the
28

1 EIR included a reasonable range of alternatives may consider the entire record to determine if
2 alternatives were properly excluded from consideration. (*Goleta II, supra*, 569.)

3 Alternatives that would eliminate or reduce significant environmental impacts *must* be
4 considered even if they would cost more or “to some degree” impede attainment of the
5 project’s objectives. (Guideline 15126.6(b).)

6 **4. Detail of Relevant Decisions on the Adequacy of Alternatives**

7 In *Friends of the Old Trees, supra*, 52 Cal.App.4th 1383, an extreme case, there was
8 no discussion of alternatives in the versions submitted for public review. The agency argued
9 that the fact it considered mitigation should suffice, while the real party marked a box
10 selecting a certain method of cutting. The court also noted that the *public* brought forth “the
11 only true alternatives,” and that these were discussed only after the document was approved.
12 (*Friends of the Old Trees, supra*, 52 Cal.App.4th 1405.) The court found the discussion
13 inadequate. (*Id.*, 1403-1405.)

14 In *Citizens of Goleta Valley v. Board of Supervisors (Goleta I)*, (1988) 197
15 Cal.App.3d 1167, the EIR considered a smaller hotel to be an economically infeasible
16 alternative to the proposed hotel at issue. Because the EIR lacked *evidence* that the smaller
17 hotel was economically infeasible, the court considered it error to deny the writ of mandate.
18 The court found that although the EIR contained estimated figures of costs, the record did not
19 reveal any *evidence* which *analyzed* the alternative in terms of comparative costs, comparative
20 profits or losses, or comparative economic benefit to the project proponent, residents, or the
21 community at large. (*Id.*, 1180.)

22 The court in *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587,
23 at 599, addressed a project to demolish an historic mansion in order to construct a new,
24 smaller single-family residence. The court found that evidence that alternatives of historic
25 rehabilitation or rehabilitation with a new addition, would cost between \$4.9 million and \$10
26 million was not substantial evidence that alternatives were not economically feasible since
27 there was no evidence of the likely cost of a proposed replacement home or average cost of
28

1 building the proposed 6,000 square foot home in the city. It also found that whether the
2 developer wanted to do the alternative was irrelevant to determining if it is not feasible.

3 *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (Arambel and*
4 *Rose Development, Inc.)* (1994) 27 Cal.App.4th 713, also dealt with alternatives analysis.
5 The court found, in the context of a proposed housing development, that the discussion of
6 housing density alternatives was inadequate. The DEIR stated that a lower density would
7 “lessen the impacts,” but failed to identify which impacts it meant or to what degree. The
8 court ruled that “[s]uch a bare conclusion without an explanation of its factual and analytical
9 basis is insufficient.” *Id.*, at 736. The court went on to state:

10 That lower density might not be “economically feasible,” is not sufficient
11 justification for the failure to give basic information as to density alternatives
12 which were considered and rejected. Contrary to [respondent’s] argument,
13 [petitioners] are not required to show there are reasonable alternatives. *It is the*
14 *project proponent’s responsibility to provide an adequate discussion of*
15 *alternatives....* If the project proponent concludes there are no feasible
16 alternatives, it must explain in *meaningful detail* in the EIR the basis for that
17 conclusion. Thus, even if alternatives are rejected, an EIR *must explain why*
18 *each suggested alternative either does not satisfy the goals of the proposed*
19 *project, does not offer substantial environmental advantages or cannot be*
20 *accomplished.*

21
22 *Id.*, at 737 (emphasis added).

23 **5. Whether Feasibility Finding Is Necessary**

24 As noted above, PRC sections 21002, 21081, and Guidelines 15091, 15093 together
25 forbid approval of a project that *will result in significant impacts without first finding that*
26 *any environmentally superior alternatives are infeasible.* Petitioner argues that Respondent
27 failed to consider an alternative that is environmentally superior.

1 **6. The Alternatives Analysis for the CAP**

2 The alternatives analysis is at AR 425-438. The PEIR explains that it developed and
3 analyzed only *one* other alternative, the Carbon Offset Alternative, in addition to the chosen
4 Zero Net Energy Buildings plan and the mandatory no-project alternative. It expressly
5 rejected a growth moratorium, reduced density, greater density, increased Sonoma Clean
6 Power, expanded transit service, 1990 Levels by 2020 (AB32), and 80% Below 1990 Levels
7 by 2020.

8 The real issue here is whether the Respondent, in rejecting formulating other
9 alternatives, has considered a reasonable range, as required, and whether Respondent has
10 provided sufficient explanation of infeasibility or other reasoning to support not considering
11 other proposed alternatives.

12 Respondent's analysis is insufficient. Respondent considered almost no range at all,
13 and only one other alternative that essentially is one that does nothing other than to authorize
14 Respondent to buy GHG offsets for all GHG impacts from projects. Although Respondent
15 argues to the contrary, this alternative seems both infeasible and at the same time would not
16 actually do anything to control or limit actual GHG production. As an alternative, this
17 appears to be one of form, but not of substance.

18 By contrast, the moratorium or reduced-development alternative which Petitioner
19 proposes, and which was presented to Respondent in public comments (see, e.g., AR 93-94,
20 response to comment) along with others noted but rejected without being developed, include
21 real solutions that differ significantly from the chosen CAP. At least some, like the
22 moratorium or growth limit, also address issues of GHG production from travel. While it is
23 logical that some may be infeasible or incompatible with goals of growth, this is not alone,
24 without explanation or support, a basis for not even considering those alternatives, or
25 modified versions. For example, Respondent noted a moratorium on growth of wineries or
26 housing “until the jobs-housing balance in the County is more equitable,” but this does not
27 even address the issues of Petitioner's proposed moratorium, it is arbitrarily limited, and it
28 does not even seem to make much sense. There is no evidence or explanation for what it

1 would be or why Respondent could not consider a similar, but different one, such as Petitioner
2 proposed. That is the purpose of actually developing and considering alternatives. Given
3 that there are available alternatives that differ drastically from what Respondent has
4 considered and given that Respondent has, in effect, considered only one other option that is
5 perhaps only nominally an alternative, this analysis fails to consider a reasonable range of
6 alternatives, or even any range at all.

7 The court Grants the petition on this issue.

8 **F. RESPONSE TO PUBLIC COMMENTS**

9 Petitioner next argues that Respondent's response to public comments was insufficient
10 in violation of Guideline 15088(c).

11 The “evaluation and response to public comments is an essential part of the CEQA
12 process.” (Discussion following CEQA Guideline 15088.) The final EIR must include
13 evaluation and responses to all comments received in the public-comment period. PRC
14 section 21091(d)(2)(A). Guideline 15088 governs responses to comments and subdivision (c)
15 governs the substance of such responses. It requires responses to address issues “in detail”
16 and demonstrate “why specific comments and suggestions were not accepted.” Most
17 importantly, perhaps, the responses must explain the reasons for rejecting suggestions with a
18 “good faith, reasoned analysis” and must not rely on “[c]onclusory statements unsupported by
19 factual information.” Guideline 15088(c).

20 **1. Exhaustion of Administrative Remedies**

21 Respondent first contends that Petitioner failed to exhaust administrative remedies on
22 this issue. The court has found, above, that Petitioner exhausted its administrative remedies.
23

24 Petitioner's argument here is collateral and not persuasive. Although Petitioner points
25 out that a few responses may not sufficiently resolve issues, that is of little importance in of
26 itself. What matters are the fundamental defects that have not been cured as discussed above:
27 failure to properly determine GHG inventory, or demonstrate that Respondent could not
28 practically have done more or did not need to do more; ill-defined mitigation measures
lacking enforceable criteria or parameters; and lack of reasonable range of alternatives.

1 The court denies the Petition with respect to the comments..

2 **G. WHETHER RESPONDENTS' ERROR WAS PREJUDICIAL**

3 Respondent contends that even if Petitioner demonstrated error, it was not prejudicial.

4 As noted at the outset, in order for the court to issue a writ of mandate, it must find not only
5 error, i.e., a violation of CEQA, but that error was prejudicial. (*Chaparral Greens v. City of*
6 *Chula Vista* (1996) 50 Cal.App.4th 1134, 1143; see PRC 21168, 21168.5, *Laurel Heights I,*
7 *supra* 47 Cal.3d 392, fn.5; Remy, et al., Guide to the California Environmental Quality Act
8 (10th Ed.1999) Chapter XI(D), p.590.)

9 Respondent's failure to impose meaningful, effectively enforceable mitigation
10 measures, when presenting compliance with the CAP as a way for future projects to avoid any
11 other GHG analysis, is fundamentally and on its face, prejudicial. The failure to present a
12 reasonable range of alternatives or to properly inventory GHG emissions as required are also
13 on, their face, prejudicial because they prevent informed decision making or public review,
14 the very bases of CEQA. (*Sierra Club v. State Bd. of Forestry* (1994) 7 Cal.4th 1215, 1228-
15 1230, 1235-1237 (failure to put critical information in an environmental document was in of
16 itself a prejudicial abuse of discretion partly because it "frustrated the purpose of the public
17 comment provisions"); *Save Cuyama Valley v. County of Santa Barbara* (2013) 213
18 Cal.App.4th 1059, at 1073 ("[a]n error is prejudicial when an agency fails to comply with a
19 mandatory CEQA procedure or when a report omits information and thereby precludes
20 informed decision making); *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131
21 Cal.App.4th 1170, 1182.; *Schoen v. Dept. of Forestry & Fire Protection* (1997) 58
22 Cal.App.4th 556, 565 ("We cannot overlook a prejudicial error by surmising that the project
23 would have gone forward anyway.")) .)

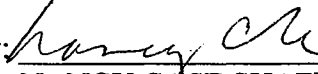
24
25 Based on the foregoing,
26
27
28

1 NOW, THEREFORE,

2 ORDER

3 1. The Petition for Mandamus is granted as stated above.

4 Dated: 7/20/17

5 By: 
6 NANCY CASE SHAFFER
7 Judge of the Superior Court

8 END NOTES

9 (a) "Tiering" refers to using the analysis of general matters contained in a broader EIR (such
10 as one prepared for a general plan or policy statement) with later EIRs and negative
11 declarations on narrower projects; incorporating by reference the general discussions from the
broader EIR; and concentrating the later EIR or negative declaration solely on the issues
specific to the later project.

12 (b) Agencies are encouraged to tier the environmental analyses which they prepare for
13 separate but related projects including general plans, zoning changes, and development
14 projects. This approach can eliminate repetitive discussions of the same issues and focus the
15 later EIR or negative declaration on the actual issues ripe for decision at each level of
16 environmental review. Tiering is appropriate when the sequence of analysis is from an EIR
17 prepared for a general plan, policy, or program to an EIR or negative declaration for another
18 plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration.
Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable
significant environmental effects of the project and does not justify deferring such analysis to
a later tier EIR or negative declaration. However, the level of detail contained in a first tier
EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed.

19 (c) Where a lead agency is using the tiering process in connection with an EIR for a large-
20 scale planning approval, such as a general plan or component thereof (e.g., an area plan or
community plan), the development of detailed, site-specific information may not be feasible
21 but can be deferred, in many instances, until such time as the lead agency prepares a future
22 environmental document in connection with a project of a more limited geographical scale, as
long as deferral does not prevent adequate identification of significant effects of the planning
approval at hand.

23 (d) Where an EIR has been prepared and certified for a program, plan, policy, or ordinance
24 consistent with the requirements of this section, any lead agency for a later project pursuant to
or consistent with the program, plan, policy, or ordinance should limit the EIR or negative
25 declaration on the later project to effects which:

- 26 (1) Were not examined as significant effects on the environment in the prior EIR; or
27 (2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in
the project, by the imposition of conditions, or other means.

28 (e) Tiering under this section shall be limited to situations where the project is consistent with
the general plan and zoning of the city or county in which the project is located, except that a
project requiring a rezone to achieve or maintain conformity with a general plan may be
subject to tiering.

1 (f) A later EIR shall be required when the initial study or other analysis finds that the later
2 project may cause significant effects on the environment that were not adequately addressed
3 in the prior EIR. A negative declaration shall be required when the provisions of Section
15070 are met.

4 (1) Where a lead agency determines that a cumulative effect has been adequately addressed in
5 the prior EIR, that effect is not treated as significant for purposes of the later EIR or negative
6 declaration, and need not be discussed in detail.

7 (2) When assessing whether there is a new significant cumulative effect, the lead agency shall
8 consider whether the incremental effects of the project would be considerable when viewed in
9 the context of past, present, and probable future projects. At this point, the question is not
10 whether there is a significant cumulative impact, but whether the effects of the project are
11 cumulatively considerable. For a discussion on how to assess whether project impacts are
12 cumulatively considerable, see Section 15064(i).

13 (3) Significant environmental effects have been "adequately addressed" if the lead agency
14 determines that:

15 (A) they have been mitigated or avoided as a result of the prior environmental impact report
16 and findings adopted in connection with that prior environmental report; or

17 (B) they have been examined at a sufficient level of detail in the prior environmental impact
18 report to enable those effects to be mitigated or avoided by site specific revisions, the
19 imposition of conditions, or by other means in connection with the approval of the later
20 project.

21 (g) When tiering is used, the later EIRs or negative declarations shall refer to the prior EIR
22 and state where a copy of the prior EIR may be examined. The later EIR or negative
23 declaration should state that the lead agency is using the tiering concept and that it is being
24 tiered with the earlier EIR.

25 (h) There are various types of EIRs that may be used in a tiering situation. These include, but
26 are not limited to, the following:

27 (1) General plan EIR (Section 15166).

28 (2) Staged EIR (Section 15167).

(3) Program EIR (Section 15168).

(4) Master EIR (Section 15175).

(5) Multiple-family residential development/residential and commercial or retail mixed-use
development (Section 15179.5).

(6) Redevelopment project (Section 15180).

(7) Projects consistent with community plan, general plan, or zoning (Section 15183).

One specific example of a first-tier EIR is a "program" EIR as set forth in Guideline
15168. This details the nature and requirements and uses of such a first-tier EIR, in a manner
similar to that set forth in 15152, and gives another good picture of how they are to be used
and what they must do to be so used in compliance with CEQA. It states, in full,

(a) General. A program EIR is an EIR which may be prepared on a series of actions
that can be characterized as one large project and are related either:

(1) Geographically,

(2) As logical parts in the chain of contemplated actions,

(3) In connection with issuance of rules, regulations, plans, or other general criteria to
govern the conduct of a continuing program, or

1
2 (4) As individual activities carried out under the same authorizing statutory or
3 regulatory authority and having generally similar environmental effects which can be
4 mitigated in similar ways.

(b) Advantages. Use of a program EIR can provide the following advantages. The
5 program EIR can:

(1) Provide an occasion for a more exhaustive consideration of effects and alternatives
6 than would be practical in an EIR on an individual action,

(2) Ensure consideration of cumulative impacts that might be slighted in a case-by-
7 case analysis,

(3) Avoid duplicative reconsideration of basic policy considerations,

(4) Allow the lead agency to consider broad policy alternatives and program wide
8 mitigation measures at an early time when the agency has greater flexibility to deal with basic
9 problems or cumulative impacts,

(5) Allow reduction in paperwork.

(c) Use With Later Activities. Subsequent activities in the program must be examined
10 in the light of the program EIR to determine whether an additional environmental document
11 must be prepared.

(1) If a later activity would have effects that were not examined in the program EIR, a
12 new initial study would need to be prepared leading to either an EIR or a negative declaration.

(2) If the agency finds that pursuant to Section 15162, no new effects could occur or
13 no new mitigation measures would be required, the agency can approve the activity as being
14 within the scope of the project covered by the program EIR, and no new environmental
15 document would be required.

(3) An agency shall incorporate feasible mitigation measures and alternatives
16 developed in the program EIR into subsequent actions in the program.

(4) Where the subsequent activities involve site specific operations, the agency should
17 use a written checklist or similar device to document the evaluation of the site and the activity
18 to determine whether the environmental effects of the operation were covered in the program
19 EIR.

(5) A program EIR will be most helpful in dealing with subsequent activities if it deals
20 with the effects of the program as specifically and comprehensively as possible. With a good
21 and detailed analysis of the program, many subsequent activities could be found to be within
22 the scope of the project described in the program EIR, and no further environmental
23 documents would be required.

(d) Use With Subsequent EIRS and Negative Declarations. A program EIR can be
24 used to simplify the task of preparing environmental documents on later parts of the program.
25 The program EIR can:

(1) Provide the basis in an initial study for determining whether the later activity may
26 have any significant effects.

(2) Be incorporated by reference to deal with regional influences, secondary effects,
27 cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

(3) Focus an EIR on a subsequent project to permit discussion solely of new effects
28 which had not been considered before.

(e) Notice With Later Activities. When a law other than CEQA requires public notice
when the agency later proposes to carry out or approve an activity within the program and to

1
2 rely on the program EIR for CEQA compliance, the notice for the activity shall include a
statement that:

- 3 (1) This activity is within the scope of the program approved earlier, and
4 (2) The program EIR adequately describes the activity for the purposes of CEQA.

5 ii (a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas
6 emissions at a programmatic level, such as in a general plan, a long range development plan,
7 or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental
8 documents may tier from and/or incorporate by reference that existing programmatic review.
9 Project-specific environmental documents may rely on an EIR containing a programmatic
analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged
EIRs) 15168 (program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for
Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

10 (b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may *choose to*
11 *analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of*
12 *greenhouse gas emissions or similar document.* A plan to reduce greenhouse gas emissions
13 may be used in a cumulative impacts analysis as set forth below. Pursuant to sections
14 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental
contribution to a cumulative effect is not cumulatively considerable if the project complies
with the requirements in a previously adopted plan or mitigation program under specified
circumstances.

15 (1) *Plan Elements. A plan for the reduction of greenhouse gas emissions should:*

16 (A) Quantify greenhouse gas emissions, both existing and projected over a specified
time period, resulting from activities within a defined geographic area;

17 (B) Establish a level, based on substantial evidence, below which the contribution to
greenhouse gas emissions from activities covered by the plan would not be cumulatively
considerable;

18 (C) Identify and analyze the greenhouse gas emissions resulting from specific actions
or categories of actions anticipated within the geographic area;

19 (D) Specify measures or a group of measures, including performance standards, that
substantial evidence demonstrates, if implemented on a project-by-project basis, would
collectively achieve the specified emissions level;

20 (E) Establish a mechanism to monitor the plan's progress toward achieving the level
and to require amendment if the plan is not achieving specified levels;

21 (F) Be adopted in a public process following environmental review.

22 (2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions,
23 once adopted following certification of an EIR or adoption of an environmental document,
24 may be used in the cumulative impacts analysis of later projects. An environmental document
25 that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify
26 those requirements specified in the plan that apply to the project, and, if those requirements
27 are not otherwise binding and enforceable, incorporate those requirements as mitigation
28 measures applicable to the project. If there is substantial evidence that the effects of a
particular project may be cumulatively considerable notwithstanding the project's compliance
with the specified requirements in the plan for the reduction of greenhouse gas emissions, an
EIR must be prepared for the project.

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(c) Special Situations. As provided in Public Resources Code sections 21155.2 and 21159.28, environmental documents for certain residential and mixed use projects, and transit priority projects, as defined in section 21155, that are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in an applicable sustainable communities strategy or alternative planning strategy need not analyze global warming impacts resulting from cars and light duty trucks.

A lead agency should consider whether such projects may result in greenhouse gas emissions resulting from other sources, however, consistent with these Guidelines.

PROOF OF SERVICE BY MAIL

I certify that I am an employee of the Superior Court of California, County of Sonoma, and that my business address is 600 Administration Drive, Room 107-J, Santa Rosa, California, 95403; that I am not a party to this case; that I am over the age of 18 years; that I am readily familiar with this office's practice for collection and processing of correspondence for mailing with the United States Postal Service; and that on the date shown below I placed a true copy of Order Granting Petition for Writ of Mandate in an envelope, sealed and addressed as shown below, for collection and mailing at Santa Rosa, California, first class, postage fully prepaid, following ordinary business practices.

Date: July 20, 2017

JOSÉ OCTAVIO GUILLÉN
Court Executive Officer

By: Missy Lemley
Missy Lemley, Deputy Clerk

-ADDRESSEES-

✓ JERRY BERNHAUT
708 Gravenstein Hwy N # 407
Sebastopol Ca 95472-2808

BRUCE D GOLDSTEIN
COUNTY COUNSEL
575 Administration Dr Rm 105a
Santa Rosa Ca 95403

Thank you for inviting comments on the scoping plan. I have the following recommendations from NOP https://planning.lacounty.gov/site/climate/wp-content/uploads/2021/12/NOP_CAP-Initial-Study_Final.pdf:

1. **it is critical to include a groundwater sustainability EIR in the climate plan!**

Why? To address the following needs:

Potentially significant impact on our aquifers and on Ballona Wetlands

The proposed reconstructed levees that the Playa Vista development intended to help that development, will in effect allow millions of gallons of critically needed potable water to flow into the ocean.

Currently the Ballona Wetlands (in lay person's terms) serves as a bladder for rainwater capture. As the wetlands get saturated, this natural bladder allows the critically needed stormwater from our once or twice a year storms to replenish the aquifers underlying Santa Monica, Culver City, Beverly Hills, Los Angeles, and unincorporated County areas.

The Ballona Wetlands are a Groundwater Dependent Ecosystem which requires evaluation. Although the County and aforementioned municipalities have formed a Groundwater Sustainable Planning Agency, there has been **NO meaningful evaluation of Ballona as a Groundwater Dependent Ecosystem.**

2. Re 4. **BIOLOGICAL RESOURCES** in respect to the Ballona Wetlands:

P 24 a) **Have a substantial adverse effect**, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)? - YES

P 25 b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS? - YES

As you address the substantial adverse effect on our biological resources, I recommend you reach out to the expert "*Margot Griswold, Ph.D., a restoration ecologist with over 27 years of experience in habitat restoration. Soils, landscape position, and hydrology, coupled with existing and historic vegetation guide her work in restoration. She participated in consensus planning for plant and wildlife habitat within the Habitat Work Group of the Owens Lake Dust Control Project, Inyo County, California. She is past president of the Society for Ecological Restoration California and the Los Angeles Audubon Society.*" Her integrity and work speaks for itself, especially to counter prevailing private interests, that unchecked will lead to an inhabitable planet for human and all breathing beings existence! *Los Angeles Audubon Society, Western Tanager, Vol. 88 No. 2, Nov-Dec 2021* <https://www.laaudubon.org/blog/2021/10/30/inconsistencies-and-missed-opportunities->

Here are her conclusions regarding the proposed plan for the Ballona wetlands:

“Furthermore, the current proposed plan results in outcomes that are inconsistent with Governor Newsom’s goals for the State.

The proposed {CDFW} plan will:

- Make the wetlands less resilient to sea-level rise, losing existing rare coastal habitats almost from the outset. It is the only project on the Pacific coast that proposes to lower a coastal wetland and open it to full tidal influence and existing sea level, to protect the wetland from future sea level rise.
- There will be a loss of existing species diversity both in terms of the soil ecosystem and the above the ground ecosystem, from the start of the project, including the loss of increasingly rare regional coastal wetland habitats.
- The removal of 3.2 million cubic yards of soil will result in the loss of carbon currently sequestered in the soil (which was not considered in the Final EIR) as well as loss through the massive operations to move that much soil which is acknowledged as an impact in the Final EIR. It is unlikely that the project, as described, can replace the carbon loss through sequestration.”

Dr. Griswold concludes: “How could such an approach have been developed by a resource protection agency {CA Dept of Fish and Wildlife}? As a social ethics analyst for the past 45 years, my conclusion is that either CDFG has not carefully watched and has not corrected the agencies and nonprofits that have managed the development of the project or there is a level of ineptitude prevailing at CDFW.

I trust the LACO CAP will use the Precautionary Principle to address these adverse effects (vs. catering to private interests that will push to prevail for their own benefit, not the public good.

As climate crises escalate, only the committed integrity of YOU who represent Los Angeles County, renowned as the creative capital of the world, can take the lead to give us hope as you model for the world what must happen NOW for meaningful climate remediation!

Our County enacted through the forthcoming Climate Action Plan can serve as the exemplar for every city, state, or nation to use. COP 26 provided reiterations of empty promises. From my analysis, only the power of an entity like Our/LA County can reverse the trajectory to our escalating extinction and resultant hopelessness. If we act with due diligence we can rekindle hope as we work to renew the face of this earth. Shall we?

Dr. Suzanne De Benedittis, PhD social ethics & environmental analyst

February 1, 2022

Please contact me if I can be of further support. Both Supervisor Holly Mitchell and her communications director, Lenee Richards know me on a first name basis as I was one of the lead activists in getting Culver City to end urban drilling. Let’s work together to begin to end the climate crisis. Yes!

From: [Dan Silver](#)
To: [DRP EPS Climate](#)
Subject: Los Angeles County 2045 Climate Action Plan Update, Notice of Preparation
Date: Monday, January 3, 2022 11:06:49 AM
Attachments: [EHL-Draft CAP Comments-4.20.20.pdf](#)

CAUTION: External Email. Proceed Responsibly.

January 3, 2022

Thuy Hua
Los Angeles County Department of Regional
Planning 320 West Temple Street, 13th Floor
Los Angeles, CA 90012

RE: Los Angeles County 2045 Climate Action Plan Update, Notice of Preparation

Dear Ms Hua:

Endangered Habitats League (EHL) appreciates the opportunity to review the NOP for the 2045 CAP. For your reference, EHL is a Southern California regional conservation group.

We have two comments on the scope of the project:

1) For the “Transportation” category, strategies should include reducing vehicle miles traveled (VMT) and GHG emissions by *limiting new development in high-VMT locations*. A variety of land use measures should be evaluated to achieve this goal.

2) For the "Agriculture, Forestry, and Other Land Use" sector, natural (habitat) lands should be added to added as target lands, as they also sequester carbon, particularly in roots and soils.

Comments on the prior iteration of the draft CAP are also enclosed for reference. If convenient, acknowledgement of receipt would also be appreciated.

Thank you for your consideration, and we look forward to working with you.

With best wishes for the New Year,
Dan

Dan Silver, Executive Director
Endangered Habitats League
8424 Santa Monica Blvd., Suite A 592
Los Angeles, CA 90069-4267

213-804-2750
dsilverla@me.com
<https://ehleague.org>



April 20, 2020

VIA ELECTRONIC MAIL

Alejandrina Baldwin
Los Angeles County Department of Regional Planning
County of Los Angeles
320 W. Temple Street
Los Angeles, CA 90012
climate@planning.lacounty.gov

Dear Ms. Baldwin:

RE: Comments on Draft Climate Action Plan, March 2020 Public Review Draft

Endangered Habitats League (EHL) appreciates the opportunity to comment. This review will focus on two sections – Transportation and Agriculture, Forestry, and Other Land Use. These correspond to EHL’s concerns over 1) the relationship of land use to vehicle miles travelled and 2) over ongoing loss of carbon-sequestering habitat lands.

Purpose and use of the CAP

We note that the projects EIR is intended to serve as a programmatic EIR for future projects.

With the adopted CAP, project-specific environmental documents that incorporate applicable CAP actions can “tier off” the environmental document adopted for the CAP to meet project-level CEQA evaluation requirements for GHG emissions. Project-specific environmental documents that incorporate applicable CAP actions, are consistent with the General Plan (development density established by existing zoning, community plan, or General Plan policies), and are consistent with CEQA, can rely on the CAP for quantitative analysis and a separate quantitative analysis will not need to be conducted. A qualitative analysis will still be required to demonstrate compliance with the CAP.

It should be clarified that the CAP and its analyses cannot be used by non-General Plan-consistent projects for purposes of tiering under CEQA. Also, the CAP EIR should develop quantifiable and enforceable mitigation measures for General Plan-consistent projects. These should incorporate the principle of “additionality,” that is, are in addition to what might have occurred absent the measure.

Transportation

The document *correctly* stresses the overarching role of GHG emissions from this sector and the need to markedly reduce VMTs. Such reduction has been clearly stated by CARB as essential to meeting the state’s targets.¹ The extent of called-for reductions in VMT appear adequate. *However, the ultimate role of the measures the draft proposes to attain such reductions is unclear, specifically, which are aspirational planning endeavors and which are mitigation measures under CEQA for GHG reduction.*

A sound approach starts with an understanding of the role the County *must* play if land use planning is to reduce carbon emissions on a *regional* basis. That proper role is to *limit* high-VMT development in the *unincorporated* area so that growth is *directed into* the incorporated municipalities where low-VMT development is far more achievable. While the draft CAP does include this vital concept, it is not fleshed out with any substance.

The County will focus on increasing density near transit and not in transit-inaccessible areas while limiting displacement of existing residents. (p. 49)

Instead, the draft CAP *over-relies* on an aggressive program of transit-oriented development, or TOD, in the unincorporated area.

Strategy 2: Promote transit oriented communities

T2: Develop community plans that will increase the percentage of residents who could live and work within the same community, and that could decrease the vehicle miles traveled.

EHL strongly supports a strategy of building low-VMT development, but it must be an action that complements—and *does not substitute for*—the unincorporated area’s *essential* goal of reducing its own new high-VMT development.

Also, what is the true potential for TOD in the *unincorporated* area? Where are the community plans which will be revised? Where is the transit network to support TOD in these locations? Very large GHG reduction benefits are assumed to derive from TOD implementation,² yet there is no *analytical chain* in the draft CAP that links *realistic* attainment of TOD in the unincorporated area to the assumptions in Table 11.

¹ “California *cannot* meet its climate goals without curbing growth in single-occupancy vehicle activity.” Air Resources Board, 2018 Progress Report, California’s Sustainable Communities and Climate Protection Act (2018) p. 28 (emphasis added).

² Table 11 (p. 113)

- VMT decrease from 17.8 miles per capita in 2015 to 10 miles per capita in 2045 because of new housing development in HQTAs and reduction in single occupancy trips (see Strategy 3).

*The vast majority of TOD potential lies within cities, and given the finite financial resources that the region has at its disposal to expand transit, inevitable prioritization will direct this investment to prime locations within cities. Also, the well-known obstacles to implementation of TOD are greater in the unincorporated area in comparison with the municipalities.*³

The draft CAP has not demonstrated that TOD adoption in the unincorporated area can achieve the mobility shifts and vehicle-miles-traveled reductions assumed. It is better considered as achievable in some part. TOD's role as an enforceable *mitigation measure* for GHG emissions under CEQA is therefore limited, and would need coupling with performance standards. This is in contrast to tangible steps like investment in transit facilities.

Rather, what the County can do *unequivocally and with absolute certainty* is to use its land use authority to *disallow* high-VMT sprawl outside of cities and thereby direct growth into cities. *How can single occupancy vehicle trip reduction goals be met and shift to transit modes occur if the County continues to sprawl with high-VMT development?* On the other hand, if the unincorporated area curtails high-VMT growth, then developers will turn to TOD in the cities—a shift which otherwise will not happen due to the higher and easier profits in sprawl. Unless the County stops approving high-VMT development, its efforts to foster TOD—whether inside or outside cities—will be undermined.

Reduction of high-VMT development can be achieved in at least three ways:

-
- As a result of new housing built within 1/2 mile of high frequency transit, it is estimated that population residing within HQTAs increases from 0.3 million in 2015 to 0.6 million by 2045.
 - Daily VMT by individuals residing in HQTAs is 25 percent lower than those in non-HQTA areas.
 - 50 percent of all trips by 2045 are taken by public transit and other modes including biking, walking, and micromobility transit. This shift in mode share reduces the dependence on light duty vehicles, thus decreasing single occupancy trips and GHG emissions.
 - Mode shift increases trips and utilization of public transit (rail and bus) and ride sharing services, increasing public transit mode share from 6 percent in 2015 to 22 percent by 2045.

³ Due to the baseline of a dispersed urban form, complete and convenient transit networks hard to attain. Getting people out of cars and into buses has not succeeded to date, as evidenced by declining transit ridership. There are also numerous poorly controllable contingencies in building and operating TOD, from local opposition to rezoning at higher density (e.g., in single-family neighborhoods close to transit corridors) to unappealing conditions in transit vehicles. Further, paradoxically, if developers are incentivized with market-rate housing—even multifamily—near transit stops, gentrification will push out the core of transit ridership, the transit-dependent.

1. Curtailing or stopping altogether *amendments* to the General Plan that produce high VMT per capita, e.g., by a GPA initiation “filter.”
2. Adopting a mandatory transfer of development rights (TDR) program that transfers existing General Plan density in high-VMT locations to low-VMT locations either in the unincorporated area or within cities.
3. Adopting a substantial VMT fee for General Plan-consistent projects, which, if properly set, will incentivize lower-VMT development and discourage the type of development which undermines the CAP.

The CPA and its EIR should include these and other mechanisms as mitigation measures for projects whose GHG emissions—including vehicle-miles-traveled—cannot be mitigated on-site. These measure would provide more substance to Strategy 3:

Strategy 3: Reduce single occupancy vehicle trips (p. 51)

Agriculture, Forestry and Other Land Use (AFOLU)

The strategies for Agriculture, Forestry and Other Land Use are positive in that the benefits of habitat land conservation are acknowledged.

Forests, chaparral shrublands, and wetlands serve as carbon sinks that can sequester carbon dioxide that result from human activity. When these natural and working lands are converted to residential and other urbanized uses, that stored carbon dioxide is released into the atmosphere. Conserving and restoring these lands keeps carbon in the ground and provides a multitude of benefits from maintaining biodiversity in Significant Ecological Areas (SEA) to preserving the character of the unincorporated County’s rural areas. (p. 87)

There is also suggested action:

Support the preservation of agricultural and working lands, including rangelands, and restore forest lands, by limiting the conversion of these lands to residential or other uses through tools such as the creation of agricultural easements, particularly within high climate-hazard areas and SEAs.

Yet the program for AFOLU remains incomplete in several ways. First, the carbon benefits of natural lands preservation are not limited to *sequestration* as the document implies, but extend to the “avoided conversion” of natural land to GHG-intensive uses. This benefit was been quantified and certified by CARB in its Sustainable Agricultural Lands Conservation (SALC) Program.⁴ Based on underlying zoning, CARB

⁴ See <http://www.sgc.ca.gov/programs/salc/resources/>

http://www.sgc.ca.gov/programs/salc/docs/20190514-SALC_FactSheet.pdf

https://www.conservation.ca.gov/dlrp/grant-programs/SALCP/Documents/2018-19%20Application%20Materials/FINAL%2018-19_SALCP%20Guidelines.pdf

has off-the-shelf metrics and methods for calculating the GHG benefit of avoided conversion.

The CAP EIR should incorporate the SALC avoided-conversion benefit into a mitigation measure for GHG emissions for new development. In other words, projects can mitigate those unavoidable GHG impacts which cannot be mitigated on-site, including VMTs, by purchasing a property interest in habitat (or farmland) that prevents conversion to developed uses. Such a measure could be implemented via the VMT fee discussed above.

The AFOLU section should also be improved in the follow ways:

1. There should be more specificity given to our prevalent vegetation types, such as coastal sage scrub, desert scrub, and oak and Joshua woodlands. It should also be noted that these lands sequester carbon in extensive root systems which are immune to wildfires which release carbon stored above ground.
2. Acreage targets should be set, such as for Significant Ecological Area (SEA) protection.
3. Mechanisms such as TDR should be established, as well as new funding sources.
4. The CAP EIR should establish a specific mitigation pathways—such as VMT mitigation banks and the VMT fee described above—whereby new development can mitigate for VMTs and other GHG impacts by preserving land.

Carbon offsets

The use of carbon offsets is proposed as a mitigation option when not enough can be done on-site:

If residual emissions cannot be eliminated through new technologies, or be reduced over time in response to changes in community-wide activities, the County will consider the purchase of certified carbon credits (or offsets) to achieve carbon neutrality by 2045. Purchased offsets will be registered in a carbon offsets registry approved by the State of California and/or the U.S. Government for that purpose. Offsets will be prioritized according to proximity to Los Angeles County with a preference for local offsets when available, followed by offsets within California.

However, offsets are *highly* problematic. Studies have shown them to be unreliable at best and fraudulent at worst, often without demonstrated additionality and enforceability.⁵

⁵ See https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf
<https://insideclimatenews.org/news/19042017/carbon-emissions-credits-paris-climate-agreement>
<https://www.technologyreview.com/s/614216/whoops-californias-carbon-offsets-program-could-extend-the-life-of-coal-mines/>

Therefore, if used at all, they should be local, verifiable, and enforceable. Limiting them to California is a step in the right direction. Also, “mitigation” is a preferable term to “offsets.”

Importantly, the requirement that offsets be from a California-approved registry is *in itself* meaningless and *not* analogous to how the State Cap-and-Trade program uses offsets to verifiably attain reductions.

Purchased offsets will be registered in a carbon offsets registry approved by the State of California and/or the U.S. Government for that purpose. (p. 37)

CARB does not accept credits supplied by a certified registry *unless* it has independently verified their protocols for efficacy, additionality, enforceability, etc. *Simply being listed on an approved registry guarantees none of the above.*⁶

Miscellaneous comments

Given the currently low rates of transition to ZEVs, are the CAP’s projected future rates of use realistic?

Zero-emission vehicle (ZEV) adoption rate: 40 percent of all sales by 2030 and 100 percent of all sales by 2050.

The Antelope Valley section includes the following proposed action (p. 128) but its intent is unclear.

Actions targeting zero carbon energy in wildfire-prone areas

However, wildfires release enormous amounts of stored carbon into the atmosphere. *The CAP should therefore include measures to reduce expansion of the urban-wildland interface, which is the dominant source of fire ignitions.* Development at the WUI is also typically high-VMT in nature, so this strategy has synergistic co-benefits.

<https://www.technologyreview.com/s/613326/californias-cap-and-trade-program-may-vastly-overestimate-emissions-cuts/>

⁶ As an example, the CAPCOA registry does not warrant that listed credits satisfy state standards. On the contrary, CAPCOA has explicitly disclaimed “any representations, warranties or guarantees of any kind as to the use or applicability of any GHG credit listed on the CAPCOA GHG Rx for ... compliance with [CEQA], or for any other use.” Rather, “if a GHG credit listed on the CAPCOA GHG Rx is proposed to be used as part of a CEQA mitigation measure, the respective CEQA lead agency ... is responsible for determining if the use of such GHG credit is appropriate (as mitigation).... The CAPCOA GHG Rx only lists available GHG credits so that interested parties may make private inquiries into obtaining those GHG credits. CAPCOA does not offer any other services beyond this listing service.”

In conclusion, the draft CAP sets good goals but should be improved to achieve implementation and to function as a programmatic EIR for future projects mitigation under CEQA. EHL would look forward to collaborating as the CAP evolves.

Yours truly,

A handwritten signature in blue ink, appearing to read "Dan Silver", with a stylized flourish at the end.

Dan Silver
Executive Director

From: patriciamcpherson1@verizon.net
To: [DRP_EPS Climate](#)
Cc: makeccsafe@gmail.com
Subject: 1- Grassroots Coalition submission of Comments LACO CLIMATE ACTION PLAN
Date: Friday, January 28, 2022 9:12:23 AM
Attachments: [Screen Shot 2022-01-28 at 8.54.11 AM.png](#)
[Screen Shot 2021-06-25 at 1.10.49 PM.png](#)
[Screen Shot 2022-01-28 at 8.54.11 AM.png](#)

CAUTION: External Email. Proceed Responsibly.



Patricia McPherson President
Jeanette@SaveBallona.org (310) 721-3512

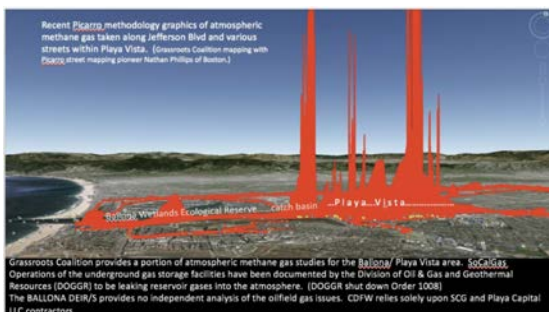
Grassroots Coalition, in review of the planning strategies does not see anything pertinent to the cessation of ongoing outgassing via gas mitigation devices that expel the oilfield gas contents into the atmosphere. Large quantities of oilfield gases are being channeled through collection devices and vented into the atmosphere rather than utilizing available SCRUBBER TECHNIQUES to scrub the outgassing of potent climate change gases which would remove the gases from venting into the atmosphere and adding to global warming.

The Picarro image below is one example of outgassing occurring via Playa Vista venting of oilfield gases via piping that simply allows gathering and transfer of oilfield gases to the surface and atmosphere. Scrubbers can and should be utilized to remove these harmful greenhouse gases from entering the atmosphere and contributing to global warming as well as stopping the conversion of these funneled gases from mixing with sunlight to become other harmful gases.

Poorly abandoned, leaky oil/gas wells need to also be properly reabandoned to prevent their outgassing of oilfield gases into the atmosphere. University City Syndicate is one such leaky well shown as outgassing voluminous amount of greenhouse gases into the atmosphere in the Picarro gas imaging attached herein.

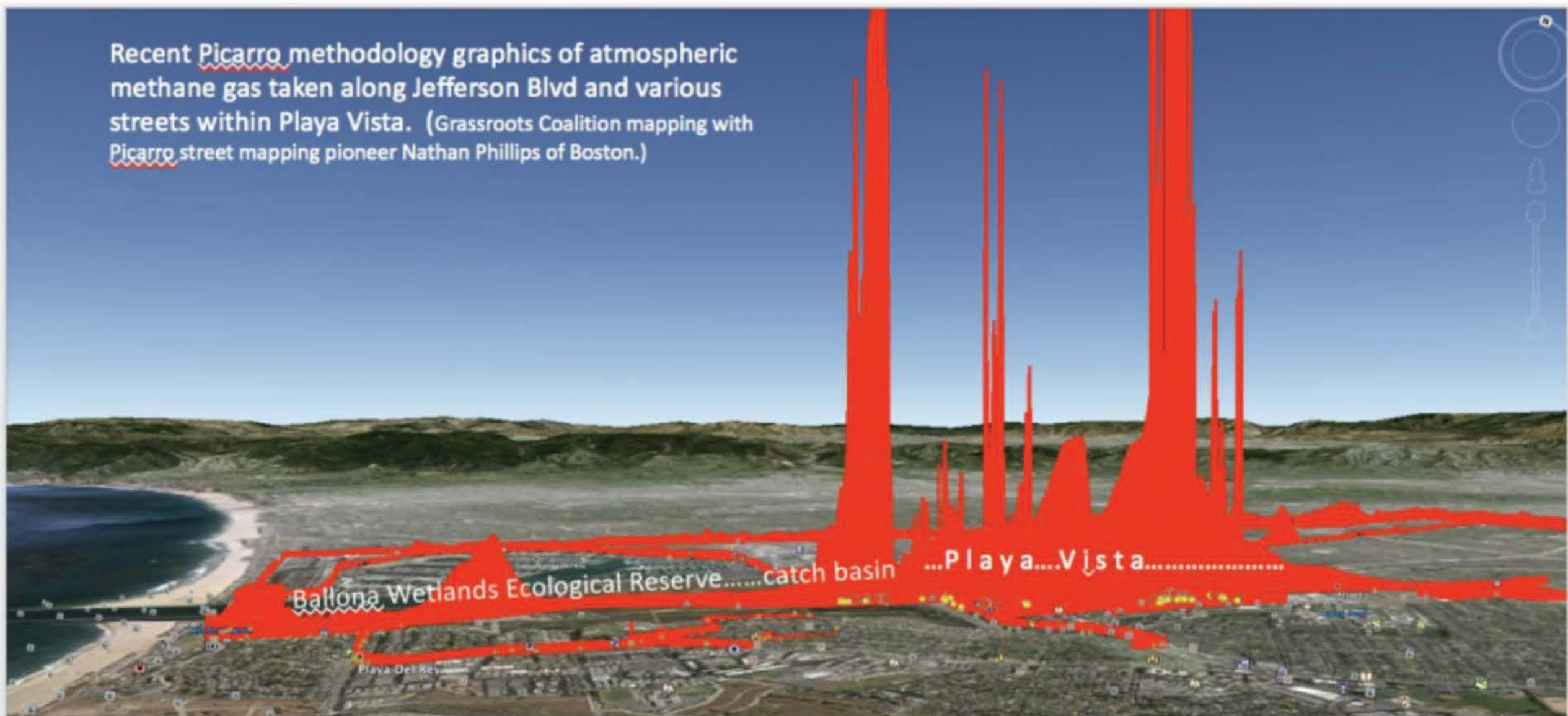
Please include acknowledgement of and attention to these issues as contributing to greenhouse gas emissions and global warming that can and should be ended.

Thank you,



Patricia McPherson, Grassroots Coalition

Recent Picarro methodology graphics of atmospheric methane gas taken along Jefferson Blvd and various streets within Playa Vista. (Grassroots Coalition mapping with Picarro street mapping pioneer Nathan Phillips of Boston.)



Grassroots Coalition provides a portion of atmospheric methane gas studies for the Ballona/ Playa Vista area. SoCalGas Operations of the underground gas storage facilities have been documented by the Division of Oil & Gas and Geothermal Resources (DOGGR) to be leaking reservoir gases into the atmosphere. (DOGGR shut down Order 1008)
The BALLONA DEIR/S provides no independent analysis of the oilfield gas issues. CDFW relies solely upon SCG and Playa Capital LLC contractors.

From: [Robert Haw](#)
To: [DRP_EPS Climate](#)
Subject: EIR Public Review - 2045 CAP
Date: Sunday, January 30, 2022 3:04:18 PM

CAUTION: External Email. Proceed Responsibly.

Dear Ma'am/Sir:

Comment on LA County 2045 Draft Climate Action Plan

Building Energy & Water

Strategy 5

Measure E3: “Standardize All-Electric New Development”

and

Strategy 7

Measure E7: “Improve Energy Efficiency of Existing Buildings”

I applaud your multiple strategies for reducing GHG emissions, *e.g.* transitioning both new and existing buildings to all-electric modes. However the CAP needs to be mindful of operation costs of all-electric buildings. Natural gas molecules are cheaper than electrons, and that disparity will likely remain for the foreseeable future. Thus it is crucial to reduce electricity demand as much as possible in order to forestall user-complaints about high power bills.

Building shells (envelopes) need to be improved significantly in parallel with building electrification. Reducing heat transmission through building walls, roofs, and windows is necessary so as to maintain stable interior temperatures while minimizing demand for heating and/or cooling. That means super-insulating walls and upgrading glazing with higher performing windows. Setting robust goals like this will tamp-down power bills of residents and occupants. Otherwise bills will soar as outdoor temperatures rise. This is the way to enhance energy efficiency in buildings and reduce GHG emissions — and do it in a passive way.

Several organizations exist for promoting the design of high performance buildings (both new construction and refurbishments). Two of the best known with high standards are:

1. Passive House Institute (begun in Germany, but now very popular world-wide):

<https://passivehouse.com/index.html>

Also Passive House California: passivehousecal.org

1. LEEDv4.1 Platinum (their highest level) usgbc.org/leed

(LEED also offers certification for neighborhood developments.)

A procedure to actually accomplish these kinds of building upgrades at scale is outlined in the following Department of Energy report:

<https://www.nrel.gov/docs/fy20osti/76142.pdf>

In summary, to achieve high energy efficiencies in the built environment, add rigorous building envelope guidelines to the 2045 Climate Action Plan. Environmental effects can be mitigated by minimizing upfront material carbon emissions of the construction materials *e.g.* insulate with cellulose, not spray foam.

Sincerely,
Robert Haw

From: [Rosalind Helfand](#)
To: [DRP EPS Climate](#)
Subject: LA County CAP EIR Notice Comments
Date: Tuesday, February 1, 2022 4:58:02 PM

CAUTION: External Email. Proceed Responsibly.

Greetings,

Please accept the following comments regarding the LA County CAP EIR Notice of Preparation and Initial Study:

- * The Initial Study discussion of greenhouse gas emissions is somewhat confusing as it indicates a comprehensive review of emissions but then heavily focuses on carbon. To be relevant and adaptable, the county will need to very clearly show how it is addressing multiple types of greenhouse gases, including methane, nitrous oxide, etc.
- * Despite discussion of expanding tree canopy and green spaces, the discussion of increasing development density/infill needs to more specifically include review of how to also meet goals to increase health and decrease pollution including increasing urban forests, localized community farming, more parks, rooftop solar, etc. It should also be emphasized that infill should not lead to increasing heat island effects or reduce green space.
- * Forests are mentioned regarding protection and restoration, but protection and restoration of other ecosystem types need to be discussed in greater detail, especially chaparral, woodlands, riparian habitat, canyon corridors, wetlands, desert, and grasslands.
- * Potential impacts on biodiversity, ecosystems and species is of deep concern. Ecosystems in LA County are already strained to a near breaking point. The utmost care should be taken to ensure that there is zero impact on vulnerable species, key ecosystems like oak woodlands, and habitat of concern for migratory species.
- * Further review should be taken to, as per the point above, ensure that infrastructure designed to combat climate change does not harm species and ecosystems, and that nature-based solutions are of primary importance, including solutions that align with the state's Pathways to 30x30.

Thank you,

Rosalind Helfand
PAJE Consulting

310-869-5749
Rosalind@PAJEConsulting.com

Address:
1956 N Beachwood Dr, Apt 8
Los Angeles, CA 90068

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Rosalind Helfand
Environmental & Social Policy Advisor
[PAJE Consulting](#)

Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
Via email: climate@planning.lacounty.gov

Dear Ms. Hua,

Comments on NOP and Initial Study for Draft 2045 Climate Action Plan

I strongly support the County's efforts to develop and adopt an enforceable Climate Action Plan that meets or exceeds the State's target of carbon neutrality by 2045. However, I am dismayed that the NOP and Initial Study attempt to narrow the scope of the EIR analyses without defining the measures, actions, performance standards and timelines that are inherent in the CAP. The measures listed in the Initial Study do not include mention of any local electricity generation including solar roofs, community solar or microgrids. There are no measures that indicate that public charging stations for electric vehicles will be included in unincorporated areas of the County. Further, the Initial Study states that new development will be required to meet a net zero water standard, but this isn't stated in the measures or identified as an existing policy. As a result, I request that the revised draft CAP be published prior to or simultaneously with the Draft EIR and that the EIR analyze a fully disclosed description of the CAP.

The County appears to be proposing to meet the State target of carbon neutrality by 2045. Alternatives in the EIR should include more aggressive timelines for carbon neutrality so that the public and decisionmakers can evaluate the feasibility of moving more quickly. Alternatives should also address the feasibility of zero emissions for many sectors, rather than carbon neutrality which implies that purchasing carbon credits will be used to achieve the target.

The Initial Study indicates that impacts to gas and electric utilities will not be addressed in the EIR. I question the analysis that led to this conclusion, and request that these impacts be addressed in the EIR. If the County is going to propose to electrify buildings and transportation instead of relying on natural gas and gasoline, it is likely that there will be an effect on electricity infrastructure. The EIR should evaluate the degree to which local solar electric generation and energy efficiency measures can offset increased demands for electricity. The net effects on local and regional electricity distribution and transmission need to be identified. Cumulative effects on electrical infrastructure throughout Los Angeles County should also be evaluated. It is important to determine when and where upgrades to electrical infrastructure will be needed as mitigation for electrification.

The EIR should also address the impacts of electrification on natural gas and gasoline station infrastructure. Changes to land use, phaseout of underground fuel storage tanks, need for cleanup of fuel leaks by responsible parties should be identified along with effects on air and groundwater quality. Phaseout of oil and gas operations in the County also needs to have

timeline and strategy to avoid adverse effects and limit public assumption of oil well capping and remediation of industrial pollution.

Thank you for the opportunity to provide input to this important scoping process for review of environmental effects of the 2045 CAP.

Sincerely,

Kathleen Kunysz
32-Year Resident of Altadena



Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
Via email: climate@planning.lacounty.gov

Dear Ms. Hua,

Comments on NOP and Initial Study for Draft 2045 Climate Action Plan

The League of Women Voters of Los Angeles County supports updating the 2020 Climate Action Plan (CAP).

The proposed 2045 CAP uses new Greenhouse Gas (GHG) emissions inventory data, new emissions forecasts and revises measures to reduce GHG emissions. All of these elements are important and needed. In general, LWV US and California support conservation of energy, water and biodiversity; GHG and Vehicle Miles Traveled (VMT) reduction; climate change adaptation; and meeting the basic needs of all people, particularly the vulnerable.

In addition to the areas specified for focus in the Programmatic Environmental Impact Report (PEIR), we are requesting that the PEIR evaluate the impact of the 2045 emission reduction strategies on the following areas, with continued attention to environmental justice and equity:

- Housing
 - Support policies to provide a decent home and a suitable living environment for every American family.
 - Support equal opportunity in housing.
- Utilities
 - Ensure the reliability of energy resources and protections of the environment and public health and safety.
- Climate Change
 - Promote a clean, low-carbon energy economy that is sustainable, including all forms of renewable energy and transportation infrastructure.
 - Promote energy conservation and efficiency in transportation, buildings, and infrastructure, including energy efficiency standards and land use policies that reduce vehicle miles traveled.

We read the Notice of Preparation (NOP) and Initial Study and do not see the detail needed for the evaluation and elimination of EIR study areas. We request that the EIR fully describe the proposed greenhouse gas reduction measures including specific actions, performance standards and timelines.

In particular, we request that the EIR evaluate the effect of electrification of energy used in buildings and vehicles upon utility infrastructure in the unincorporated areas and cumulatively throughout Los Angeles County. The EIR should identify the effect of local solar energy generation and microgrids and energy efficiency measures to offset increases in electrical energy demands and effects on regional electrical energy transmission infrastructure. The EIR should also evaluate the effect of reduced demand for natural gas and gasoline stations and increased demand for electric vehicle charging and their effects on land use, transportation patterns and air quality. The EIR should also have a plan to seal oil and gas wells, and to decommission refineries and gas pipelines.

We understand that the Department of Regional Planning is currently revising the Draft 2045 CAP and including more detailed descriptions of mitigation projects. However, those detailed projects should be fully reviewed for possible impacts and be subject to public comment within the EIR process.

Sincerely,

A handwritten signature in black ink, appearing to read "Fatima Malik", is centered below the word "Sincerely,". The signature is written in a cursive, flowing style.

Fatima Malik
President
League of Women Voters of Los Angeles County

NATIVE AMERICAN HERITAGE COMMISSION

December 30, 2021

Thuy Hua
 Los Angeles Department of Regional Planning
 320 W. Temple Street 13th Floor
 Los Angeles, CA 90012



Re: 2021120568, Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP) Project, Los Angeles County

Dear Ms. Hua:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015. If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). Both SB 18 and AB 52 have tribal consultation requirements. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.



CHAIRPERSON
 Laura Miranda
 Luiseño

VICE CHAIRPERSON
 Reginald Pagaling
 Chumash

PARLIAMENTARIAN
 Russell Attebery
 Karuk

COMMISSIONER
 William Mungary
 Paiute/White Mountain
 Apache

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 Yokayo Pomo, Yuki,
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NAHC.ca.gov

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a.** A brief description of the project.
 - b.** The lead agency contact information.
 - c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a.** Alternatives to the project.
 - b.** Recommended mitigation measures.
 - c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:
 - a.** Type of environmental review necessary.
 - b.** Significance of the tribal cultural resources.
 - c.** Significance of the project's impacts on tribal cultural resources.
 - d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
 - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

- 1. Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe. (Gov. Code §65352.3 (a)(2)).
- 2. No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
- 3. Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
- 4. Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

- 1.** Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a.** If part or all of the APE has been previously surveyed for cultural resources.
 - b.** If any known cultural resources have already been recorded on or adjacent to the APE.
 - c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d.** If a survey is required to determine whether previously unrecorded cultural resources are present.
- 2.** If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

- b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.
- 3.** Contact the NAHC for:
- a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
- 4.** Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
- a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:
Andrew.Green@nahc.ca.gov.

Sincerely,



Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

From: [Ryan Nordness](#)
To: [DRP EPS Climate](#)
Subject: DEIR Los Angeles County 2045 Climate Action Plan (Draft 2045 CAP)
Date: Tuesday, February 1, 2022 2:28:36 PM

CAUTION: External Email. Proceed Responsibly.

Hello Thuy Hua,

Thank you for inviting San Manuel into the discussion over unincorporated Los Angeles county's management of greenhouse gas emissions. We have no overt concerns concerning the management of the emissions created by community activities, unless however, this plan would include the development of carbon reduction projects within tribal territory. These projects could include community parks, forests/preserves, carbon capture plants, etc.. Additionally, the tribe is interested in any educational, land acknowledgement, or interpretive opportunities that would result in this DEIR. Once again, San manuel thanks you for this opportunity to comment on the 2045 Climate Action Plan.

Respectfully,
Ryan Nordness

Ryan Nordness

Cultural Resource Analyst

Ryan.Nordness@sanmanuel-nsn.gov

O:(909) 864-8933 Ext 50-2022

M:(909) 838-4053

26569 Community Center Dr Highland, California 92346





February 1, 2022

Ms. Thuy Hua, Supervising Regional Planner
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, California 90012
E-mail: climate@planning.lacounty.gov

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Los Angeles County 2045 Climate Action Plan [SCAG NO. IGR10549]

Dear Ms. Hua,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Los Angeles County 2045 Climate Action Plan (“proposed project”) to the Southern California Association of Governments (SCAG) for review and comment. SCAG is responsible for providing informational resources to regionally significant plans, projects, and programs per the California Environmental Quality Act (CEQA) to facilitate the consistency of these projects with SCAG’s adopted regional plans, to be determined by the lead agencies.¹

Pursuant to Senate Bill (SB) 375, SCAG is the designated Regional Transportation Planning Agency under state law and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). SCAG’s feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) goals and align with RTP/SCS policies. Finally, SCAG is also the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Los Angeles County 2045 Climate Action Plan in Los Angeles County. The proposed project consists of a General Plan Amendment to replace the Los Angeles County Community Climate Action Plan (CAP). Revisions include an updated GHG emissions inventory; new emissions forecasts; new GHG emissions targets; a revised suite of GHG reduction strategies, measures, and actions; a technical modeling; consideration of environmental justice and equity concern; and a new development review consistency checklist to allow projects to streamline CEQA compliance for by using the CAP.

When available, please email environmental documentation to IGR@scag.ca.gov providing, at a minimum, the full public comment period for review.

If you have any questions regarding the attached comments, please contact the Intergovernmental Review (IGR) Program, attn.: Anita Au, Senior Regional Planner, at (213) 236-1874 or IGR@scag.ca.gov. Thank you.

Sincerely,

Frank Wen, Ph.D.
Manager, Planning Strategy Department

¹ Lead agencies such as local jurisdictions have the sole discretion in determining a local project’s consistency with the 2020 RTP/SCS (Connect SoCal) for the purpose of determining consistency for CEQA.

SOUTHERN CALIFORNIA
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**COMMENTS ON THE NOTICE OF PREPARATION OF A
DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE
LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN [SCAG NO. IGR10549]**

CONSISTENCY WITH CONNECT SOCIAL

SCAG provides informational resources to facilitate the consistency of the proposed project with the adopted 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal). For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project’s consistency with Connect SoCal.

CONNECT SOCIAL GOALS

The SCAG Regional Council fully adopted [Connect SoCal](#) in September 2020. Connect SoCal, also known as the 2020 – 2045 RTP/SCS, builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in Connect SoCal may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project. Among the relevant goals of Connect SoCal are the following:

| SCAG CONNECT SOCIAL GOALS | |
|---------------------------|--|
| Goal #1: | <i>Encourage regional economic prosperity and global competitiveness</i> |
| Goal #2: | <i>Improve mobility, accessibility, reliability and travel safety for people and goods</i> |
| Goal #3: | <i>Enhance the preservation, security, and resilience of the regional transportation system</i> |
| Goal #4: | <i>Increase person and goods movement and travel choices within the transportation system</i> |
| Goal #5: | <i>Reduce greenhouse gas emissions and improve air quality</i> |
| Goal #6: | <i>Support healthy and equitable communities</i> |
| Goal #7: | <i>Adapt to a changing climate and support an integrated regional development pattern and transportation network</i> |
| Goal #8: | <i>Leverage new transportation technologies and data-driven solutions that result in more efficient travel</i> |
| Goal #9: | <i>Encourage development of diverse housing types in areas that are supported by multiple transportation options</i> |
| Goal #10: | <i>Promote conservation of natural and agricultural lands and restoration of habitats</i> |

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

| SCAG CONNECT SOCIAL GOALS | |
|---|---|
| Goal | Analysis |
| Goal #1: <i>Encourage regional economic prosperity and global competitiveness</i> | <i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i> |
| Goal #2: <i>Improve mobility, accessibility, reliability and travel safety for people and goods</i> | <i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i> |
| etc. | etc. |

Connect SoCal Strategies

To achieve the goals of Connect SoCal, a wide range of land use and transportation strategies are included in the accompanying twenty (20) technical reports. Of particular note are multiple strategies included in Chapter 3 of Connect SoCal intended to support implementation of the regional Sustainable Communities Strategy (SCS) framed within the context of focusing growth near destinations and mobility options; promoting diverse housing choices; leveraging technology innovations; supporting implementation of sustainability policies; and promoting a Green Region. To view Connect SoCal and the accompanying technical reports, please visit the [Connect SoCal webpage](#). Connect SoCal builds upon the progress from previous RTP/SCS cycles and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that helps the SCAG region strive towards a more sustainable region, while meeting statutory requirements pertinent to RTP/SCSs. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

SCAG staff would like to call your attention to resources available from SCAG’s [Regional Climate Adaptation Framework](#) including the [Southern California Climate Adaptation Planning Guide](#), [Communication and Outreach Toolkit](#), [Library of Model Policies](#), and [SB 379 Compliance Curriculum for Local Jurisdictions](#).

DEMOGRAPHICS AND GROWTH FORECASTS

A key, formative step in projecting future population, households, and employment through 2045 for Connect SoCal was the generation of a forecast of regional and county level growth in collaboration with expert demographers and economists on Southern California. From there, jurisdictional level forecasts were ground-truthed by subregions and local agencies, which helped SCAG identify opportunities and barriers to future development. This forecast helps the region understand, in a very general sense, where we are expected to grow, and allows SCAG to focus attention on areas that are experiencing change and may have increased transportation needs. After a year-long engagement effort with all 197 jurisdictions one-on-one, 82 percent of SCAG’s 197 jurisdictions provided feedback on the forecast of future growth for Connect SoCal. SCAG also sought feedback on potential sustainable growth strategies from a broad range of stakeholder groups – including local jurisdictions, county transportation commissions, other partner agencies, industry groups, community-based organizations, and the general public. Connect SoCal utilizes a bottom-up approach in that total projected growth for each jurisdiction reflects feedback received from jurisdiction staff, including city managers, community development/planning directors, and local staff. Growth at the neighborhood level (i.e., transportation analysis zone (TAZ) reflects entitled projects and adheres to current general and specific plan maximum densities as conveyed by jurisdictions (except in cases where entitled projects and development agreements exceed these capacities as calculated by SCAG). Neighborhood level growth projections also feature strategies that help to reduce greenhouse gas emissions (GHG) from automobiles and light trucks to achieve Southern California’s GHG reduction target, approved by the California Air Resources Board (CARB) in accordance

with state planning law. Connect SoCal’s Forecasted Development Pattern is utilized for long range modeling purposes and does not supersede actions taken by elected bodies on future development, including entitlements and development agreements. SCAG does not have the authority to implement the plan -- neither through decisions about what type of development is built where, nor what transportation projects are ultimately built, as Connect SoCal is adopted at the jurisdictional level. Achieving a sustained regional outcome depends upon informed and intentional local action. To access jurisdictional level growth estimates and forecasts for years 2016 and 2045, please refer to the [Connect SoCal Demographics and Growth Forecast Technical Report](#). The growth forecasts for the region and applicable jurisdictions are below.

| | Adopted SCAG Region Wide Forecasts | | | | Adopted County of Los Angeles Forecasts | | | |
|------------|------------------------------------|------------|------------|------------|---|------------|------------|------------|
| | Year 2020 | Year 2030 | Year 2035 | Year 2045 | Year 2020 | Year 2030 | Year 2035 | Year 2045 |
| Population | 19,517,731 | 20,821,171 | 21,443,006 | 22,503,899 | 10,407,326 | 10,899,849 | 11,173,987 | 11,673,937 |
| Households | 6,333,458 | 6,902,821 | 7,170,110 | 7,633,451 | 3,471,759 | 3,749,346 | 3,884,871 | 4,119,336 |
| Employment | 8,695,427 | 9,303,627 | 9,566,384 | 10,048,822 | 4,838,458 | 5,059,615 | 5,171,618 | 5,382,235 |

MITIGATION MEASURES

SCAG staff recommends that you review the [Final Program Environmental Impact Report](#) (Final PEIR) for Connect SoCal for guidance, as appropriate. SCAG’s Regional Council certified the PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on May 7, 2020 and also adopted a PEIR Addendum and amended the MMRP on September 3, 2020 (please see the [PEIR webpage](#) and scroll to the bottom of the page for the PEIR Addendum). The PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

From: [Sheila Swift](#)
To: [DRP EPS Climate](#)
Subject: comment and question CAP/Air quality
Date: Thursday, January 13, 2022 10:09:08 AM

CAUTION: External Email. Proceed Responsibly.

To Alejandrina Baldwin

Dear Alexandrina,

I watched the recording of your last webinar and I am planning on attending the meeting this afternoon. I am a member of a neighborhood group that has been working for several years on local air quality issues in Altadena and Pasadena. One of our main points of focus is on gas-powered lawn/yard maintenance equipment, specifically the use of gas-powered mowers and blowers. We are aware that several cities in the Los Angeles area have successfully banned the use of such gas-powered lawn equipment while providing financial support to yard maintenance companies who have to transition to electric and solar equipment.

We would very much like to see this instituted across all of Los Angeles County particularly as reports indicate that carbon emissions from this type of equipment are set to exceed emissions from cars this year. People have been talking about emissions from this type of equipment for well over two decades now and yet the equipment is still in wide use almost everywhere, which is extremely frustrating.

It seems to us that this type of equipment, in the face of our looming and urgent climate crisis, and the numerous alternative, non-polluting alternatives available for yard maintenance measures, should be phased within the year, rather than within the decade. There is plentiful data and public interest that support making this change.

We would like to hear from your vantage point today why this is taking so long and what, specifically, are the current plans to address the urgent issue of gas-powered yard maintenance equipment.

Thank you for the work you do for us and future generations!

Sheila Swift
729 N Michigan Ave.
Pasadena, CA 91104

Kathleen Trinity
4343 Fairlane St.
Acton, CA, 93510
ktrinity46@gmail.com
1-30-2022

Thuy Hua
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
Email : thua@planning.lacounty.gov

Re Comment on Los Angeles County Climate Action Plan (CAP) December 2021 Draft 2045

By Kathleen Trinity

Acton, C A.

While it is the responsibility of Los Angeles County is addressing Climate Change in our area, several parts of the Climate Action Plan, Draft 2045, December 2021, are not well thought out when addressing the unincorporated areas of the north east County. I specifically object to Element 14 as applied to Acton, CA. CAP Element 14 Population and Housing, section a, is judged as “less than significant impact,” p. 59 of the NOP. Since Metrolink has a train station at the foot of the Angeles National Forest, CAP will attract high density housing within the vicinity of the Metrolink Station. This is a very poor idea for the following reasons:

1. Dense housing in that area would compromise the safety and integrity of the wildlife and its resources in the adjacent hills, mountains, and riparian areas. Density of housing also reduces contiguous areas of open space necessary for wildlife corridors. Traffic, noise, the increased risk of fire, trash and toxins come with dense population. The proximity of dense housing development will disturb and stress burrowing animals, deer, birds, mountain lions, bobcats, and small mammals in the area. More vermin are likely to congregate in and around dense housing units with the inevitable use of toxic materials even if they are banned. More raptors are likely to hunt vermin in and around such an area, thus threatening smaller birds and their nests as well as migrating birds.
2. The more stressed water supply in Acton and the AV has now become severe. Some wells have gone dry and drought is predicted to continue well into the future. Dense housing in Acton will further stress the water supply. The water supply in Action is a moving source in much of the area, not an aquifer. Therefore, transfer of water to or from Acton will not ameliorate the problem.
3. Wildfires have not only destroyed densely spaced housing developments, but densely populated housing developments in or at the interface of wilderness. The Paradise Fire in Northern California created such intensity of heat and rapid movement that many residents became trapped within its rapidly changing perimeter. The study, “The Spatial and Temporal Pattern of Wildfires in California 2000 to 2019,” Journal Nature, November 2021 ([nature.com/articles/841598-021-88131-4](https://www.nature.com/articles/841598-021-88131-4)), finds

that “the greater the density of housing and population (in these areas), the greater the density of fires.” The study also notes that California’s fire season has increase by more than two months and that the increase in smaller fires caused by human activity has fed into the increase in wildfires. We place an ever increasing burden upon our fire services by building dense housing in and near wilderness, whether or not it is part of the General Plan. We must place common sense about fire prevention over development if we are serious about preserving human life as well as wilderness and wildlife.

Appendix B

Air Quality



South Coast Air Quality Management District

Air Quality Significance Thresholds
From: South Coast AQMD Air Quality Significance
Thresholds (April 2019).



South Coast AQMD Air Quality Significance Thresholds

| Mass Daily Thresholds ^a | | |
|---|---|-------------------------------|
| Pollutant | Construction ^b | Operation ^c |
| NO_x | 100 lbs/day | 55 lbs/day |
| VOC | 75 lbs/day | 55 lbs/day |
| PM₁₀ | 150 lbs/day | 150 lbs/day |
| PM_{2.5} | 55 lbs/day | 55 lbs/day |
| SO_x | 150 lbs/day | 150 lbs/day |
| CO | 550 lbs/day | 550 lbs/day |
| Lead | 3 lbs/day | 3 lbs/day |
| Toxic Air Contaminants (TACs), Odor, and GHG Thresholds | | |
| TACs (including carcinogens and non-carcinogens) | Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment) | |
| Odor | Project creates an odor nuisance pursuant to South Coast AQMD Rule 402 | |
| GHG | 10,000 MT/yr CO ₂ eq for industrial facilities | |
| Ambient Air Quality Standards for Criteria Pollutants ^d | | |
| NO₂ 1-hour average annual arithmetic mean | South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal) | |
| PM₁₀ 24-hour average annual average | 10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation) 1.0 µg/m ³ | |
| PM_{2.5} 24-hour average | 10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation) | |
| SO₂ 1-hour average 24-hour average | 0.25 ppm (state) & 0.075 ppm (federal – 99 th percentile) 0.04 ppm (state) | |
| Sulfate 24-hour average | 25 µg/m ³ (state) | |
| CO 1-hour average 8-hour average | South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal) | |
| Lead 30-day Average Rolling 3-month average | 1.5 µg/m ³ (state) 0.15 µg/m ³ (federal) | |

^a Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)
^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
^d Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.
^e Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million µg/m³ = microgram per cubic meter ≥ = greater than or equal to
 MT/yr CO₂eq = metric tons per year of CO₂ equivalents > = greater than

South Coast Air Quality Management District

Mass Rate Localized Significance Thresholds
Look-Up Tables
From: Final Localized Significance Threshold
Methodology, Appendix C (June 2003, Revised 2008).

**Table C-1. 2006 – 2008 Thresholds for Construction and Operation with
Gradual Conversion of NO_x to NO₂**

| SRA No. | Source Receptor Area | Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary | | | | | | | | | |
|---------|----------------------------------|--|-----|-----|-----|-----|--------|-----|-----|-----|-----|
| | | 1 Acre | | | | | 2 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 74 | 74 | 82 | 106 | 168 | 108 | 106 | 110 | 126 | 179 |
| 2 | Northwest Coastal LA County | 103 | 104 | 121 | 156 | 245 | 147 | 143 | 156 | 186 | 262 |
| 3 | Southwest Coastal LA County | 91 | 93 | 107 | 139 | 218 | 131 | 128 | 139 | 165 | 233 |
| 4 | South Coastal LA County | 57 | 58 | 68 | 90 | 142 | 82 | 80 | 87 | 106 | 151 |
| 5 | Southeast LA County | 80 | 81 | 94 | 123 | 192 | 114 | 111 | 121 | 145 | 205 |
| 6 | West San Fernando Valley | 103 | 104 | 121 | 157 | 245 | 147 | 143 | 156 | 187 | 263 |
| 7 | East San Fernando Valley | 80 | 81 | 94 | 122 | 191 | 114 | 111 | 121 | 144 | 204 |
| 8 | West San Gabriel Valley | 69 | 69 | 81 | 104 | 164 | 98 | 95 | 104 | 124 | 175 |
| 9 | East San Gabriel Valley | 89 | 112 | 159 | 251 | 489 | 128 | 151 | 200 | 284 | 513 |
| 10 | Pomona/Walnut Valley | 103 | 129 | 185 | 292 | 570 | 149 | 175 | 230 | 330 | 598 |
| 11 | South San Gabriel Valley | 83 | 84 | 96 | 123 | 193 | 121 | 118 | 126 | 147 | 206 |
| 12 | South Central LA County | 46 | 46 | 54 | 70 | 109 | 65 | 64 | 69 | 82 | 117 |
| 13 | Santa Clarita Valley | 114 | 115 | 133 | 173 | 273 | 163 | 159 | 172 | 204 | 291 |
| 15 | San Gabriel Mountains | 114 | 115 | 133 | 173 | 273 | 163 | 159 | 172 | 204 | 291 |
| 16 | North Orange County | 103 | 104 | 121 | 159 | 252 | 147 | 143 | 156 | 186 | 269 |
| 17 | Central Orange County | 81 | 83 | 98 | 123 | 192 | 115 | 114 | 125 | 148 | 205 |
| 18 | North Coastal Orange County | 92 | 93 | 108 | 140 | 219 | 131 | 128 | 139 | 165 | 235 |
| 19 | Saddleback Valley | 91 | 93 | 108 | 140 | 218 | 131 | 127 | 139 | 165 | 233 |
| 20 | Central Orange County Coastal | 92 | 93 | 108 | 140 | 219 | 131 | 128 | 139 | 165 | 235 |
| 21 | Capistrano Valley | 91 | 93 | 108 | 140 | 218 | 131 | 127 | 139 | 165 | 233 |
| 22 | Norco/Corona | 118 | 148 | 211 | 334 | 652 | 170 | 200 | 263 | 378 | 684 |
| 23 | Metropolitan Riverside County | 118 | 148 | 212 | 335 | 652 | 170 | 200 | 264 | 379 | 684 |
| 24 | Perris Valley | 118 | 148 | 212 | 335 | 652 | 170 | 200 | 264 | 379 | 684 |
| 25 | Lake Elsinore | 162 | 203 | 292 | 460 | 896 | 234 | 275 | 363 | 521 | 941 |
| 26 | Temecula Valley | 162 | 203 | 292 | 460 | 896 | 234 | 275 | 363 | 521 | 941 |
| 27 | Anza Area | 162 | 203 | 292 | 460 | 896 | 234 | 275 | 363 | 521 | 941 |
| 28 | Hemet/San Jacinto Valley | 162 | 203 | 292 | 460 | 896 | 234 | 275 | 363 | 521 | 941 |
| 29 | Banning Airport | 103 | 131 | 189 | 299 | 585 | 149 | 176 | 234 | 340 | 614 |
| 30 | Coachella Valley | 132 | 166 | 238 | 376 | 733 | 191 | 225 | 296 | 425 | 769 |
| 31 | East Riverside County | 132 | 166 | 238 | 376 | 733 | 191 | 225 | 296 | 425 | 769 |
| 32 | Northwest San Bernardino Valley | 118 | 148 | 211 | 334 | 652 | 170 | 200 | 263 | 378 | 684 |
| 33 | Southwest San Bernardino Valley | 118 | 148 | 211 | 334 | 652 | 170 | 200 | 263 | 378 | 684 |
| 34 | Central San Bernardino Valley | 118 | 148 | 211 | 334 | 652 | 170 | 200 | 263 | 378 | 684 |
| 35 | East San Bernardino Valley | 118 | 148 | 211 | 334 | 651 | 170 | 200 | 263 | 377 | 683 |
| 36 | West San Bernardino Mountains | 118 | 148 | 211 | 334 | 652 | 170 | 200 | 263 | 378 | 684 |
| 37 | Central San Bernardino Mountains | 118 | 148 | 211 | 334 | 652 | 170 | 200 | 263 | 378 | 684 |
| 38 | East San Bernardino Mountains | 118 | 148 | 211 | 334 | 651 | 170 | 200 | 263 | 377 | 683 |

**Table C-1. 2006 – 2008 Thresholds for Construction and Operation with
Gradual Conversion of NO_x to NO₂ (Continued)**

| SRA No. | Source Receptor Area | Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary | | | | |
|---------|----------------------------------|--|-----|-----|-----|-------|
| | | 5 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 161 | 157 | 165 | 173 | 212 |
| 2 | Northwest Coastal LA County | 221 | 212 | 226 | 250 | 312 |
| 3 | Southwest Coastal LA County | 197 | 189 | 202 | 222 | 277 |
| 4 | South Coastal LA County | 123 | 118 | 126 | 141 | 179 |
| 5 | Southeast LA County | 172 | 165 | 176 | 194 | 244 |
| 6 | West San Fernando Valley | 221 | 212 | 226 | 250 | 313 |
| 7 | East San Fernando Valley | 172 | 165 | 176 | 194 | 242 |
| 8 | West San Gabriel Valley | 148 | 141 | 151 | 166 | 208 |
| 9 | East San Gabriel Valley | 203 | 227 | 286 | 368 | 584 |
| 10 | Pomona/Walnut Valley | 236 | 265 | 330 | 426 | 681 |
| 11 | South San Gabriel Valley | 183 | 176 | 184 | 202 | 245 |
| 12 | South Central LA County | 98 | 94 | 101 | 111 | 139 |
| 13 | Santa Clarita Valley | 246 | 236 | 251 | 275 | 345 |
| 15 | San Gabriel Mountains | 246 | 236 | 251 | 275 | 345 |
| 16 | North Orange County | 221 | 212 | 226 | 249 | 317 |
| 17 | Central Orange County | 183 | 167 | 180 | 202 | 245 |
| 18 | North Coastal Orange County | 197 | 190 | 202 | 223 | 278 |
| 19 | Saddleback Valley | 197 | 189 | 201 | 222 | 278 |
| 20 | Central Orange County Coastal | 197 | 190 | 202 | 223 | 278 |
| 21 | Capistrano Valley | 197 | 189 | 201 | 222 | 278 |
| 22 | Norco/Corona | 270 | 302 | 378 | 486 | 778 |
| 23 | Metropolitan Riverside County | 270 | 302 | 378 | 488 | 780 |
| 24 | Perris Valley | 270 | 302 | 378 | 488 | 780 |
| 25 | Lake Elsinore | 371 | 416 | 520 | 672 | 1,072 |
| 26 | Temecula Valley | 371 | 416 | 520 | 672 | 1,072 |
| 27 | Anza Area | 371 | 416 | 520 | 672 | 1,072 |
| 28 | Hemet/San Jacinto Valley | 371 | 416 | 520 | 672 | 1,072 |
| 29 | Banning Airport | 236 | 265 | 333 | 434 | 698 |
| 30 | Coachella Valley | 304 | 340 | 425 | 547 | 875 |
| 31 | East Riverside County | 304 | 340 | 425 | 547 | 875 |
| 32 | Northwest San Bernardino Valley | 270 | 303 | 378 | 486 | 778 |
| 33 | Southwest San Bernardino Valley | 270 | 303 | 378 | 486 | 778 |
| 34 | Central San Bernardino Valley | 270 | 302 | 378 | 486 | 778 |
| 35 | East San Bernardino Valley | 270 | 302 | 378 | 486 | 778 |
| 36 | West San Bernardino Mountains | 270 | 303 | 378 | 486 | 778 |
| 37 | Central San Bernardino Mountains | 270 | 302 | 378 | 486 | 778 |
| 38 | East San Bernardino Mountains | 270 | 302 | 378 | 486 | 778 |

Table C-2. 2006 – 2008 CO Emission Thresholds for Construction and Operation

| SRA No. | Source Receptor Area | Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary | | | | | | | | | |
|---------|----------------------------------|--|-------|-------|-------|--------|--------|-------|-------|-------|--------|
| | | 1 Acre | | | | | 2 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 680 | 882 | 1,259 | 2,406 | 7,911 | 1,048 | 1,368 | 1,799 | 3,016 | 8,637 |
| 2 | Northwest Coastal LA County | 562 | 833 | 1,233 | 2,367 | 7,724 | 827 | 1,213 | 1,695 | 2,961 | 8,446 |
| 3 | Southwest Coastal LA County | 664 | 785 | 1,156 | 2,228 | 7,269 | 967 | 1,158 | 1,597 | 2,783 | 7,950 |
| 4 | South Coastal LA County | 585 | 789 | 1,180 | 2,296 | 7,558 | 842 | 1,158 | 1,611 | 2,869 | 8,253 |
| 5 | Southeast LA County | 571 | 735 | 1,088 | 2,104 | 6,854 | 861 | 1,082 | 1,496 | 2,625 | 7,500 |
| 6 | West San Fernando Valley | 426 | 652 | 1,089 | 2,096 | 6,815 | 644 | 903 | 1,497 | 2,629 | 7,460 |
| 7 | East San Fernando Valley | 498 | 732 | 1,158 | 2,227 | 7,267 | 786 | 1,068 | 1,594 | 2,786 | 7,947 |
| 8 | West San Gabriel Valley | 535 | 783 | 1,158 | 2,229 | 7,270 | 812 | 1,125 | 1,594 | 2,785 | 7,957 |
| 9 | East San Gabriel Valley | 623 | 945 | 1,914 | 4,803 | 20,721 | 953 | 1,344 | 2,445 | 5,658 | 22,093 |
| 10 | Pomona/Walnut Valley | 612 | 911 | 1,741 | 4,345 | 18,991 | 885 | 1,358 | 2,298 | 5,097 | 20,256 |
| 11 | South San Gabriel Valley | 673 | 760 | 1,113 | 2,110 | 6,884 | 1,031 | 1,143 | 1,554 | 2,660 | 7,530 |
| 12 | South Central LA County | 231 | 342 | 632 | 1,545 | 5,452 | 346 | 515 | 841 | 1,817 | 5,962 |
| 13 | Santa Clarita Valley | 590 | 879 | 1,294 | 2,500 | 8,174 | 877 | 1,256 | 1,787 | 3,108 | 8,933 |
| 15 | San Gabriel Mountains | 590 | 879 | 1,294 | 2,500 | 8,174 | 877 | 1,256 | 1,787 | 3,108 | 8,933 |
| 16 | North Orange County | 522 | 685 | 1,014 | 1,975 | 6,531 | 762 | 1,010 | 1,395 | 2,444 | 7,121 |
| 17 | Central Orange County | 485 | 753 | 1,128 | 2,109 | 6,841 | 715 | 1,041 | 1,547 | 2,685 | 7,493 |
| 18 | North Coastal Orange County | 647 | 738 | 1,090 | 2,096 | 6,841 | 962 | 1,089 | 1,506 | 2,615 | 7,493 |
| 19 | Saddleback Valley | 696 | 833 | 1,234 | 2,376 | 7,724 | 993 | 1,227 | 1,696 | 2,965 | 8,454 |
| 20 | Central Orange County Coastal | 647 | 738 | 1,090 | 2,096 | 6,841 | 962 | 1,089 | 1,506 | 2,615 | 7,493 |
| 21 | Capistrano Valley | 696 | 833 | 1,234 | 2,376 | 7,724 | 993 | 1,227 | 1,696 | 2,965 | 8,454 |
| 22 | Norco/Corona | 674 | 999 | 1,853 | 4,352 | 17,637 | 1,007 | 1,474 | 2,461 | 5,183 | 18,934 |
| 23 | Metropolitan Riverside County | 602 | 887 | 1,746 | 4,359 | 17,640 | 883 | 1,262 | 2,232 | 5,136 | 18,947 |
| 24 | Perris Valley | 602 | 887 | 1,746 | 4,359 | 17,640 | 883 | 1,262 | 2,232 | 5,136 | 18,947 |
| 25 | Lake Elsinore | 750 | 1,105 | 2,176 | 5,501 | 23,866 | 1,100 | 1,572 | 2,781 | 6,399 | 25,412 |
| 26 | Temecula Valley | 750 | 1,105 | 2,176 | 5,501 | 23,866 | 1,100 | 1,572 | 2,781 | 6,399 | 25,412 |
| 27 | Anza Area | 750 | 1,105 | 2,176 | 5,501 | 23,866 | 1,100 | 1,572 | 2,781 | 6,399 | 25,412 |
| 28 | Hemet/San Jacinto Valley | 750 | 1,105 | 2,176 | 5,501 | 23,866 | 1,100 | 1,572 | 2,781 | 6,399 | 25,412 |
| 29 | Banning Airport | 1,000 | 1,420 | 2,623 | 6,154 | 25,057 | 1,541 | 2,049 | 3,458 | 7,395 | 26,890 |
| 30 | Coachella Valley | 878 | 1,387 | 2,565 | 6,021 | 24,417 | 1,299 | 1,931 | 3,409 | 7,174 | 26,212 |
| 31 | East Riverside County | 878 | 1,387 | 2,565 | 6,021 | 24,417 | 1,299 | 1,931 | 3,409 | 7,174 | 26,212 |
| 32 | Northwest San Bernardino Valley | 863 | 1,328 | 2,423 | 5,691 | 23,065 | 1,232 | 1,877 | 3,218 | 6,778 | 24,768 |
| 33 | Southwest San Bernardino Valley | 863 | 1,328 | 2,423 | 5,691 | 23,065 | 1,232 | 1,877 | 3,218 | 6,778 | 24,768 |
| 34 | Central San Bernardino Valley | 667 | 1,059 | 2,141 | 5,356 | 21,708 | 972 | 1,463 | 2,738 | 6,346 | 23,304 |
| 35 | East San Bernardino Valley | 775 | 1,205 | 2,279 | 5,351 | 21,703 | 1,174 | 1,712 | 3,029 | 6,375 | 23,294 |
| 36 | West San Bernardino Mountains | 863 | 1,328 | 2,423 | 5,691 | 23,065 | 1,232 | 1,877 | 3,218 | 6,778 | 24,768 |
| 37 | Central San Bernardino Mountains | 667 | 1,059 | 2,141 | 5,356 | 21,708 | 972 | 1,463 | 2,738 | 6,346 | 23,304 |
| 38 | East San Bernardino Mountains | 775 | 1,205 | 2,279 | 5,351 | 21,703 | 1,174 | 1,712 | 3,029 | 6,375 | 23,294 |

Table C-2. 2006 – 2008 CO Emission Thresholds for Construction and Operation (Continued)

| SRA No. | Source Receptor Area | Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary | | | | |
|---------|----------------------------------|--|-------|-------|--------|--------|
| | | 5 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 1,861 | 2,331 | 3,030 | 4,547 | 10,666 |
| 2 | Northwest Coastal LA County | 1,531 | 1,985 | 2,762 | 4,383 | 10,467 |
| 3 | Southwest Coastal LA County | 1,796 | 1,984 | 2,608 | 4,119 | 9,852 |
| 4 | South Coastal LA County | 1,530 | 1,982 | 2,613 | 4,184 | 10,198 |
| 5 | Southeast LA County | 1,480 | 1,855 | 2,437 | 3,867 | 9,312 |
| 6 | West San Fernando Valley | 1,158 | 1,537 | 2,438 | 3,871 | 9,271 |
| 7 | East San Fernando Valley | 1,434 | 1,872 | 2,599 | 4,119 | 9,848 |
| 8 | West San Gabriel Valley | 1,540 | 1,921 | 2,599 | 4,119 | 9,857 |
| 9 | East San Gabriel Valley | 1,733 | 2,299 | 3,680 | 7,600 | 25,558 |
| 10 | Pomona/Walnut Valley | 1,566 | 2,158 | 3,691 | 7,011 | 23,450 |
| 11 | South San Gabriel Valley | 1,814 | 1,984 | 2,549 | 4,024 | 9,342 |
| 12 | South Central LA County | 630 | 879 | 1,368 | 2,514 | 7,389 |
| 13 | Santa Clarita Valley | 1,644 | 2,095 | 2,922 | 4,608 | 11,049 |
| 15 | San Gabriel Mountains | 1,644 | 2,095 | 2,922 | 4,608 | 11,049 |
| 16 | North Orange County | 1,311 | 1,731 | 2,274 | 3,605 | 8,754 |
| 17 | Central Orange County | 1,253 | 1,734 | 2,498 | 4,018 | 9,336 |
| 18 | North Coastal Orange County | 1,711 | 1,864 | 2,455 | 3,888 | 9,272 |
| 19 | Saddleback Valley | 1,804 | 2,102 | 2,763 | 4,387 | 10,507 |
| 20 | Central Orange County Coastal | 1,711 | 1,864 | 2,455 | 3,888 | 9,272 |
| 21 | Capistrano Valley | 1,804 | 2,102 | 2,763 | 4,387 | 10,507 |
| 22 | Norco/Corona | 1,700 | 2,470 | 3,964 | 7,350 | 22,490 |
| 23 | Metropolitan Riverside County | 1,577 | 2,178 | 3,437 | 6,860 | 22,530 |
| 24 | Perris Valley | 1,577 | 2,178 | 3,437 | 6,860 | 22,530 |
| 25 | Lake Elsinore | 1,965 | 2,714 | 4,282 | 8,547 | 29,256 |
| 26 | Temecula Valley | 1,965 | 2,714 | 4,282 | 8,547 | 29,256 |
| 27 | Anza Area | 1,965 | 2,714 | 4,282 | 8,547 | 29,256 |
| 28 | Hemet/San Jacinto Valley | 1,965 | 2,714 | 4,282 | 8,547 | 29,256 |
| 29 | Banning Airport | 2,817 | 3,575 | 5,534 | 10,383 | 31,903 |
| 30 | Coachella Valley | 2,292 | 3,237 | 5,331 | 10,178 | 31,115 |
| 31 | East Riverside County | 2,292 | 3,237 | 5,331 | 10,178 | 31,115 |
| 32 | Northwest San Bernardino Valley | 2,193 | 2,978 | 5,188 | 9,611 | 29,410 |
| 33 | Southwest San Bernardino Valley | 2,193 | 2,978 | 5,188 | 9,611 | 29,410 |
| 34 | Central San Bernardino Valley | 1,746 | 2,396 | 4,142 | 8,532 | 27,680 |
| 35 | East San Bernardino Valley | 2,075 | 2,890 | 4,765 | 9,044 | 27,650 |
| 36 | West San Bernardino Mountains | 2,193 | 2,978 | 5,188 | 9,611 | 29,410 |
| 37 | Central San Bernardino Mountains | 1,746 | 2,396 | 4,142 | 8,532 | 27,680 |
| 38 | East San Bernardino Mountains | 2,075 | 2,890 | 4,765 | 9,044 | 27,650 |

Table C-3. PM10 Emission Thresholds for Operation

| SRA No. | Source Receptor Area | Significance Threshold of 2.5 mg/m ³ Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | | | | | | |
|---------|----------------------------------|---|----|-----|-----|-----|--------|----|-----|-----|-----|
| | | 1 Acre | | | | | 2 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 2 | 4 | 8 | 17 | 43 | 2 | 6 | 11 | 20 | 46 |
| 2 | Northwest Coastal LA County | 1 | 3 | 7 | 14 | 36 | 2 | 5 | 9 | 16 | 37 |
| 3 | Southwest Coastal LA County | 1 | 4 | 7 | 14 | 34 | 2 | 6 | 9 | 16 | 36 |
| 4 | South Coastal LA County | 1 | 3 | 7 | 15 | 38 | 2 | 5 | 9 | 17 | 40 |
| 5 | Southeast LA County | 1 | 3 | 8 | 16 | 42 | 2 | 5 | 10 | 18 | 44 |
| 6 | West San Fernando Valley | 1 | 3 | 7 | 15 | 38 | 2 | 5 | 8 | 16 | 39 |
| 7 | East San Fernando Valley | 1 | 3 | 7 | 13 | 33 | 2 | 5 | 9 | 15 | 35 |
| 8 | West San Gabriel Valley | 1 | 3 | 7 | 14 | 37 | 2 | 5 | 9 | 16 | 39 |
| 9 | East San Gabriel Valley | 2 | 4 | 9 | 19 | 48 | 2 | 6 | 11 | 20 | 50 |
| 10 | Pomona/Walnut Valley | 1 | 3 | 7 | 14 | 36 | 2 | 5 | 8 | 16 | 38 |
| 11 | South San Gabriel Valley | 1 | 4 | 7 | 15 | 37 | 2 | 6 | 9 | 17 | 39 |
| 12 | South Central LA County | 1 | 3 | 7 | 13 | 34 | 2 | 5 | 9 | 15 | 36 |
| 13 | Santa Clarita Valley | 1 | 3 | 6 | 13 | 32 | 2 | 5 | 8 | 15 | 34 |
| 15 | San Gabriel Mountains | 1 | 3 | 6 | 13 | 32 | 2 | 5 | 8 | 15 | 34 |
| 16 | North Orange County | 1 | 3 | 6 | 13 | 33 | 2 | 4 | 8 | 15 | 35 |
| 17 | Central Orange County | 1 | 3 | 7 | 15 | 38 | 2 | 5 | 9 | 17 | 40 |
| 18 | North Coastal Orange County | 1 | 4 | 7 | 13 | 33 | 2 | 6 | 9 | 15 | 35 |
| 19 | Saddleback Valley | 1 | 3 | 6 | 12 | 29 | 2 | 5 | 8 | 14 | 31 |
| 20 | Central Orange County Coastal | 1 | 4 | 7 | 13 | 33 | 2 | 6 | 9 | 15 | 35 |
| 21 | Capistrano Valley | 1 | 3 | 6 | 12 | 29 | 2 | 5 | 8 | 14 | 31 |
| 22 | Norco/Corona | 1 | 3 | 8 | 18 | 48 | 2 | 5 | 10 | 20 | 50 |
| 23 | Metropolitan Riverside County | 1 | 3 | 8 | 17 | 43 | 2 | 5 | 10 | 18 | 45 |
| 24 | Perris Valley | 1 | 3 | 8 | 17 | 43 | 2 | 5 | 10 | 18 | 45 |
| 25 | Lake Elsinore | 1 | 3 | 8 | 17 | 43 | 2 | 5 | 10 | 18 | 45 |
| 26 | Temecula Valley | 1 | 3 | 8 | 17 | 43 | 2 | 5 | 10 | 18 | 45 |
| 27 | Anza Area | 1 | 3 | 8 | 17 | 43 | 2 | 5 | 10 | 18 | 45 |
| 28 | Hemet/San Jacinto Valley | 1 | 3 | 8 | 17 | 43 | 2 | 5 | 10 | 18 | 45 |
| 29 | Banning Airport | 2 | 5 | 14 | 31 | 84 | 3 | 8 | 18 | 38 | 98 |
| 30 | Coachella Valley | 1 | 3 | 9 | 20 | 52 | 2 | 6 | 16 | 36 | 97 |
| 31 | East Riverside County | 1 | 3 | 9 | 20 | 52 | 2 | 6 | 16 | 36 | 97 |
| 32 | Northwest San Bernardino Valley | 2 | 4 | 11 | 25 | 68 | 2 | 5 | 9 | 16 | 39 |
| 33 | Southwest San Bernardino Valley | 2 | 4 | 11 | 25 | 68 | 2 | 5 | 9 | 16 | 39 |
| 34 | Central San Bernardino Valley | 1 | 3 | 8 | 18 | 47 | 2 | 6 | 10 | 20 | 50 |
| 35 | East San Bernardino Valley | 1 | 3 | 9 | 20 | 53 | 2 | 5 | 11 | 22 | 56 |
| 36 | West San Bernardino Mountains | 2 | 4 | 11 | 25 | 68 | 2 | 5 | 9 | 16 | 39 |
| 37 | Central San Bernardino Mountains | 1 | 3 | 8 | 18 | 47 | 2 | 6 | 10 | 20 | 50 |
| 38 | East San Bernardino Mountains | 1 | 3 | 9 | 20 | 53 | 2 | 5 | 11 | 22 | 56 |

Table C-3. PM10 Emission Thresholds for Operation (Continued)

| SRA No. | Source Receptor Area | Significance Threshold of 2.5 mg/m ³ Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | |
|---------|----------------------------------|---|----|-----|-----|-----|
| | | 5 acres | | | | |
| | | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 4 | 12 | 17 | 26 | 53 |
| 2 | Northwest Coastal LA County | 3 | 10 | 13 | 21 | 42 |
| 3 | Southwest Coastal LA County | 4 | 12 | 15 | 21 | 41 |
| 4 | South Coastal LA County | 4 | 10 | 14 | 22 | 46 |
| 5 | Southeast LA County | 4 | 10 | 15 | 23 | 49 |
| 6 | West San Fernando Valley | 3 | 9 | 13 | 21 | 44 |
| 7 | East San Fernando Valley | 4 | 11 | 14 | 21 | 41 |
| 8 | West San Gabriel Valley | 3 | 9 | 13 | 21 | 44 |
| 9 | East San Gabriel Valley | 4 | 11 | 16 | 26 | 55 |
| 10 | Pomona/Walnut Valley | 3 | 9 | 13 | 20 | 42 |
| 11 | South San Gabriel Valley | 4 | 11 | 15 | 22 | 45 |
| 12 | South Central LA County | 4 | 10 | 14 | 20 | 40 |
| 13 | Santa Clarita Valley | 3 | 10 | 13 | 19 | 39 |
| 15 | San Gabriel Mountains | 3 | 10 | 13 | 19 | 39 |
| 16 | North Orange County | 3 | 9 | 12 | 19 | 40 |
| 17 | Central Orange County | 3 | 10 | 14 | 22 | 45 |
| 18 | North Coastal Orange County | 4 | 11 | 14 | 21 | 41 |
| 19 | Saddleback Valley | 3 | 9 | 12 | 18 | 36 |
| 20 | Central Orange County Coastal | 4 | 11 | 14 | 21 | 41 |
| 21 | Capistrano Valley | 3 | 9 | 12 | 18 | 36 |
| 22 | Norco/Corona | 3 | 9 | 14 | 25 | 55 |
| 23 | Metropolitan Riverside County | 4 | 10 | 14 | 23 | 50 |
| 24 | Perris Valley | 4 | 10 | 14 | 23 | 50 |
| 25 | Lake Elsinore | 4 | 10 | 14 | 23 | 50 |
| 26 | Temecula Valley | 4 | 10 | 14 | 23 | 50 |
| 27 | Anza Area | 4 | 10 | 14 | 23 | 50 |
| 28 | Hemet/San Jacinto Valley | 4 | 10 | 14 | 23 | 50 |
| 29 | Banning Airport | 6 | 16 | 25 | 44 | 98 |
| 30 | Coachella Valley | 4 | 11 | 16 | 27 | 60 |
| 31 | East Riverside County | 4 | 11 | 16 | 27 | 60 |
| 32 | Northwest San Bernardino Valley | 4 | 12 | 20 | 34 | 78 |
| 33 | Southwest San Bernardino Valley | 4 | 12 | 20 | 34 | 78 |
| 34 | Central San Bernardino Valley | 4 | 11 | 16 | 26 | 55 |
| 35 | East San Bernardino Valley | 4 | 11 | 16 | 28 | 62 |
| 36 | West San Bernardino Mountains | 4 | 12 | 20 | 34 | 78 |
| 37 | Central San Bernardino Mountains | 4 | 11 | 16 | 26 | 55 |
| 38 | East San Bernardino Mountains | 4 | 11 | 16 | 28 | 62 |

Table C-4. PM10 Emission Thresholds for Construction

| SRA No. | Source Receptor Area | Significance Threshold of 10.4 mg/m ³ Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | | | | | | |
|---------|----------------------------------|--|----|-----|-----|-----|--------|----|-----|-----|-----|
| | | 1 Acre | | | | | 2 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 5 | 15 | 33 | 70 | 179 | 8 | 25 | 43 | 80 | 190 |
| 2 | Northwest Coastal LA County | 4 | 12 | 27 | 57 | 146 | 6 | 19 | 34 | 64 | 154 |
| 3 | Southwest Coastal LA County | 5 | 14 | 28 | 56 | 140 | 8 | 23 | 37 | 65 | 148 |
| 4 | South Coastal LA County | 4 | 13 | 29 | 61 | 158 | 7 | 21 | 37 | 70 | 167 |
| 5 | Southeast LA County | 4 | 13 | 30 | 66 | 173 | 7 | 21 | 39 | 74 | 182 |
| 6 | West San Fernando Valley | 4 | 11 | 27 | 59 | 155 | 6 | 17 | 33 | 66 | 162 |
| 7 | East San Fernando Valley | 4 | 13 | 26 | 54 | 136 | 7 | 21 | 34 | 62 | 144 |
| 8 | West San Gabriel Valley | 4 | 11 | 27 | 58 | 152 | 6 | 19 | 34 | 66 | 160 |
| 9 | East San Gabriel Valley | 5 | 14 | 34 | 75 | 199 | 7 | 22 | 42 | 84 | 207 |
| 10 | Pomona/Walnut Valley | 4 | 11 | 26 | 57 | 148 | 6 | 18 | 33 | 64 | 156 |
| 11 | South San Gabriel Valley | 5 | 13 | 29 | 60 | 153 | 7 | 22 | 37 | 68 | 162 |
| 12 | South Central LA County | 4 | 12 | 26 | 54 | 139 | 7 | 20 | 34 | 62 | 146 |
| 13 | Santa Clarita Valley | 4 | 12 | 25 | 51 | 131 | 6 | 19 | 32 | 59 | 139 |
| 15 | San Gabriel Mountains | 4 | 12 | 25 | 51 | 131 | 6 | 19 | 32 | 59 | 139 |
| 16 | North Orange County | 4 | 10 | 24 | 53 | 137 | 6 | 17 | 31 | 60 | 145 |
| 17 | Central Orange County | 4 | 12 | 28 | 60 | 158 | 6 | 19 | 35 | 68 | 166 |
| 18 | North Coastal Orange County | 4 | 13 | 27 | 54 | 135 | 7 | 21 | 35 | 62 | 144 |
| 19 | Saddleback Valley | 4 | 11 | 24 | 48 | 121 | 6 | 18 | 30 | 55 | 129 |
| 20 | Central Orange County Coastal | 4 | 13 | 27 | 54 | 135 | 7 | 21 | 35 | 62 | 144 |
| 21 | Capistrano Valley | 4 | 11 | 24 | 48 | 121 | 6 | 18 | 30 | 55 | 129 |
| 22 | Norco/Corona | 4 | 11 | 32 | 73 | 198 | 6 | 18 | 39 | 81 | 206 |
| 23 | Metropolitan Riverside County | 4 | 12 | 30 | 67 | 178 | 7 | 20 | 38 | 75 | 186 |
| 24 | Perris Valley | 4 | 12 | 30 | 67 | 178 | 7 | 20 | 38 | 75 | 186 |
| 25 | Lake Elsinore | 4 | 12 | 30 | 67 | 178 | 7 | 20 | 38 | 75 | 186 |
| 26 | Temecula Valley | 4 | 12 | 30 | 67 | 178 | 7 | 20 | 38 | 75 | 186 |
| 27 | Anza Area | 4 | 12 | 30 | 67 | 178 | 7 | 20 | 38 | 75 | 186 |
| 28 | Hemet/San Jacinto Valley | 4 | 12 | 30 | 67 | 178 | 7 | 20 | 38 | 75 | 186 |
| 29 | Banning Airport | 6 | 19 | 55 | 129 | 348 | 10 | 32 | 73 | 157 | 407 |
| 30 | Coachella Valley | 4 | 13 | 35 | 80 | 214 | 7 | 22 | 44 | 89 | 223 |
| 31 | East Riverside County | 4 | 13 | 35 | 80 | 214 | 7 | 22 | 44 | 89 | 223 |
| 32 | Northwest San Bernardino Valley | 5 | 14 | 44 | 103 | 280 | 6 | 19 | 34 | 66 | 160 |
| 33 | Southwest San Bernardino Valley | 5 | 14 | 44 | 103 | 280 | 6 | 19 | 34 | 66 | 160 |
| 34 | Central San Bernardino Valley | 4 | 13 | 33 | 74 | 196 | 7 | 22 | 42 | 83 | 205 |
| 35 | East San Bernardino Valley | 4 | 12 | 36 | 82 | 220 | 7 | 21 | 44 | 90 | 230 |
| 36 | West San Bernardino Mountains | 5 | 14 | 44 | 103 | 280 | 6 | 19 | 34 | 66 | 160 |
| 37 | Central San Bernardino Mountains | 4 | 13 | 33 | 74 | 196 | 7 | 22 | 42 | 83 | 205 |
| 38 | East San Bernardino Mountains | 4 | 12 | 36 | 82 | 220 | 7 | 21 | 44 | 90 | 230 |

Table C-4. PM10 Emission Thresholds for Construction (Continued)

| SRA No. | Source Receptor Area | Significance Threshold of 10.4 mg/m ³ Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | |
|---------|----------------------------------|--|----|-----|-----|-----|
| | | 5 acres | | | | |
| | | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 16 | 50 | 69 | 107 | 219 |
| 2 | Northwest Coastal LA County | 13 | 40 | 55 | 84 | 174 |
| 3 | Southwest Coastal LA County | 15 | 46 | 60 | 88 | 171 |
| 4 | South Coastal LA County | 14 | 42 | 58 | 92 | 191 |
| 5 | Southeast LA County | 14 | 42 | 60 | 95 | 203 |
| 6 | West San Fernando Valley | 11 | 35 | 51 | 84 | 181 |
| 7 | East San Fernando Valley | 14 | 42 | 56 | 84 | 167 |
| 8 | West San Gabriel Valley | 12 | 37 | 53 | 85 | 180 |
| 9 | East San Gabriel Valley | 14 | 43 | 63 | 105 | 229 |
| 10 | Pomona/Walnut Valley | 12 | 36 | 51 | 82 | 175 |
| 11 | South San Gabriel Valley | 14 | 43 | 59 | 91 | 186 |
| 12 | South Central LA County | 13 | 41 | 55 | 83 | 166 |
| 13 | Santa Clarita Valley | 12 | 38 | 52 | 79 | 161 |
| 15 | San Gabriel Mountains | 12 | 38 | 52 | 79 | 161 |
| 16 | North Orange County | 11 | 34 | 49 | 78 | 165 |
| 17 | Central Orange County | 13 | 39 | 55 | 88 | 188 |
| 18 | North Coastal Orange County | 14 | 44 | 57 | 85 | 167 |
| 19 | Saddleback Valley | 12 | 37 | 49 | 74 | 148 |
| 20 | Central Orange County Coastal | 14 | 44 | 57 | 85 | 167 |
| 21 | Capistrano Valley | 12 | 37 | 49 | 74 | 148 |
| 22 | Norco/Corona | 12 | 37 | 58 | 101 | 228 |
| 23 | Metropolitan Riverside County | 13 | 40 | 59 | 96 | 207 |
| 24 | Perris Valley | 13 | 40 | 59 | 96 | 207 |
| 25 | Lake Elsinore | 13 | 40 | 59 | 96 | 207 |
| 26 | Temecula Valley | 13 | 40 | 59 | 96 | 207 |
| 27 | Anza Area | 13 | 40 | 59 | 96 | 207 |
| 28 | Hemet/San Jacinto Valley | 13 | 40 | 59 | 96 | 207 |
| 29 | Banning Airport | 21 | 67 | 104 | 180 | 405 |
| 30 | Coachella Valley | 14 | 44 | 67 | 112 | 248 |
| 31 | East Riverside County | 14 | 44 | 67 | 112 | 248 |
| 32 | Northwest San Bernardino Valley | 16 | 50 | 80 | 140 | 322 |
| 33 | Southwest San Bernardino Valley | 16 | 50 | 80 | 140 | 322 |
| 34 | Central San Bernardino Valley | 14 | 44 | 65 | 106 | 229 |
| 35 | East San Bernardino Valley | 14 | 42 | 66 | 113 | 255 |
| 36 | West San Bernardino Mountains | 16 | 50 | 80 | 140 | 322 |
| 37 | Central San Bernardino Mountains | 14 | 44 | 65 | 106 | 229 |
| 38 | East San Bernardino Mountains | 14 | 42 | 66 | 113 | 255 |

Table C-5. PM2.5 Emission Thresholds for Operation

| SRA No. | Source Receptor Area | Significance Threshold of 2.5 ug/m ³ Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | | | | | | |
|---------|----------------------------------|---|----|-----|-----|-----|--------|----|-----|-----|-----|
| | | 1 Acre | | | | | 2 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 1 | 2 | 3 | 6 | 25 | 2 | 2 | 3 | 7 | 27 |
| 2 | Northwest Coastal LA County | 1 | 1 | 2 | 5 | 19 | 1 | 2 | 3 | 6 | 20 |
| 3 | Southwest Coastal LA County | 1 | 2 | 3 | 5 | 18 | 1 | 2 | 3 | 6 | 20 |
| 4 | South Coastal LA County | 1 | 2 | 3 | 7 | 23 | 1 | 2 | 4 | 8 | 25 |
| 5 | Southeast LA County | 1 | 1 | 2 | 5 | 21 | 1 | 2 | 3 | 6 | 22 |
| 6 | West San Fernando Valley | 1 | 1 | 2 | 5 | 19 | 1 | 2 | 2 | 5 | 21 |
| 7 | East San Fernando Valley | 1 | 1 | 2 | 5 | 17 | 1 | 2 | 3 | 5 | 18 |
| 8 | West San Gabriel Valley | 1 | 1 | 2 | 5 | 19 | 1 | 2 | 3 | 5 | 20 |
| 9 | East San Gabriel Valley | 1 | 2 | 3 | 6 | 23 | 2 | 2 | 3 | 7 | 25 |
| 10 | Pomona/Walnut Valley | 1 | 1 | 2 | 5 | 18 | 1 | 2 | 3 | 5 | 20 |
| 11 | South San Gabriel Valley | 1 | 2 | 3 | 5 | 20 | 2 | 2 | 3 | 6 | 22 |
| 12 | South Central LA County | 1 | 1 | 2 | 4 | 17 | 1 | 2 | 3 | 5 | 18 |
| 13 | Santa Clarita Valley | 1 | 1 | 2 | 5 | 18 | 1 | 2 | 2 | 5 | 20 |
| 15 | San Gabriel Mountains | 1 | 1 | 2 | 5 | 18 | 1 | 2 | 2 | 5 | 20 |
| 16 | North Orange County | 1 | 1 | 3 | 5 | 18 | 1 | 2 | 3 | 6 | 19 |
| 17 | Central Orange County | 1 | 1 | 2 | 6 | 21 | 1 | 2 | 3 | 6 | 22 |
| 18 | North Coastal Orange County | 1 | 2 | 3 | 6 | 19 | 2 | 2 | 3 | 7 | 20 |
| 19 | Saddleback Valley | 1 | 1 | 2 | 5 | 17 | 1 | 2 | 3 | 6 | 18 |
| 20 | Central Orange County Coastal | 1 | 2 | 3 | 6 | 19 | 2 | 2 | 3 | 7 | 20 |
| 21 | Capistrano Valley | 1 | 1 | 2 | 5 | 17 | 1 | 2 | 3 | 6 | 18 |
| 22 | Norco/Corona | 1 | 2 | 3 | 6 | 23 | 2 | 2 | 3 | 6 | 24 |
| 23 | Metropolitan Riverside County | 1 | 1 | 2 | 5 | 21 | 1 | 2 | 3 | 6 | 22 |
| 24 | Perris Valley | 1 | 1 | 2 | 5 | 21 | 1 | 2 | 3 | 6 | 22 |
| 25 | Lake Elsinore | 1 | 1 | 2 | 5 | 21 | 1 | 2 | 3 | 6 | 22 |
| 26 | Temecula Valley | 1 | 1 | 2 | 5 | 21 | 1 | 2 | 3 | 6 | 22 |
| 27 | Anza Area | 1 | 1 | 2 | 5 | 21 | 1 | 2 | 3 | 6 | 22 |
| 28 | Hemet/San Jacinto Valley | 1 | 1 | 2 | 5 | 21 | 1 | 2 | 3 | 6 | 22 |
| 29 | Banning Airport | 1 | 2 | 4 | 9 | 38 | 2 | 3 | 5 | 10 | 40 |
| 30 | Coachella Valley | 1 | 2 | 3 | 6 | 26 | 2 | 2 | 3 | 7 | 27 |
| 31 | East Riverside County | 1 | 2 | 3 | 6 | 26 | 2 | 2 | 3 | 7 | 27 |
| 32 | Northwest San Bernardino Valley | 1 | 2 | 3 | 8 | 34 | 2 | 2 | 4 | 9 | 36 |
| 33 | Southwest San Bernardino Valley | 1 | 2 | 3 | 8 | 34 | 2 | 2 | 4 | 9 | 36 |
| 34 | Central San Bernardino Valley | 1 | 2 | 3 | 6 | 24 | 1 | 2 | 3 | 7 | 25 |
| 35 | East San Bernardino Valley | 1 | 2 | 3 | 7 | 27 | 2 | 2 | 4 | 8 | 29 |
| 36 | West San Bernardino Mountains | 1 | 2 | 3 | 8 | 34 | 2 | 2 | 4 | 9 | 36 |
| 37 | Central San Bernardino Mountains | 1 | 2 | 3 | 6 | 24 | 1 | 2 | 3 | 7 | 25 |
| 38 | East San Bernardino Mountains | 1 | 2 | 3 | 7 | 27 | 2 | 2 | 4 | 8 | 29 |

Table C-5. PM2.5 Emission Thresholds for Operation (Continued)

| SRA No. | Source Receptor Area | Significance Threshold of 2.5 ug/m3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | |
|---------|----------------------------------|---|----|-----|-----|-----|
| | | 5 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 2 | 3 | 5 | 9 | 31 |
| 2 | Northwest Coastal LA County | 2 | 2 | 4 | 7 | 23 |
| 3 | Southwest Coastal LA County | 2 | 3 | 5 | 9 | 24 |
| 4 | South Coastal LA County | 2 | 3 | 5 | 10 | 29 |
| 5 | Southeast LA County | 2 | 3 | 4 | 8 | 25 |
| 6 | West San Fernando Valley | 2 | 2 | 3 | 7 | 23 |
| 7 | East San Fernando Valley | 2 | 3 | 4 | 7 | 21 |
| 8 | West San Gabriel Valley | 2 | 3 | 4 | 7 | 23 |
| 9 | East San Gabriel Valley | 2 | 3 | 5 | 9 | 28 |
| 10 | Pomona/Walnut Valley | 2 | 3 | 4 | 7 | 23 |
| 11 | South San Gabriel Valley | 2 | 3 | 5 | 9 | 25 |
| 12 | South Central LA County | 2 | 3 | 4 | 7 | 21 |
| 13 | Santa Clarita Valley | 2 | 2 | 3 | 7 | 23 |
| 15 | San Gabriel Mountains | 2 | 2 | 3 | 7 | 23 |
| 16 | North Orange County | 2 | 3 | 4 | 8 | 23 |
| 17 | Central Orange County | 2 | 3 | 4 | 8 | 27 |
| 18 | North Coastal Orange County | 2 | 3 | 5 | 9 | 25 |
| 19 | Saddleback Valley | 2 | 3 | 4 | 8 | 22 |
| 20 | Central Orange County Coastal | 2 | 3 | 5 | 9 | 25 |
| 21 | Capistrano Valley | 2 | 3 | 4 | 8 | 22 |
| 22 | Norco/Corona | 2 | 3 | 5 | 9 | 28 |
| 23 | Metropolitan Riverside County | 2 | 3 | 4 | 8 | 26 |
| 24 | Perris Valley | 2 | 3 | 4 | 8 | 26 |
| 25 | Lake Elsinore | 2 | 3 | 4 | 8 | 26 |
| 26 | Temecula Valley | 2 | 3 | 4 | 8 | 26 |
| 27 | Anza Area | 2 | 3 | 4 | 8 | 26 |
| 28 | Hemet/San Jacinto Valley | 2 | 3 | 4 | 8 | 26 |
| 29 | Banning Airport | 3 | 4 | 6 | 14 | 46 |
| 30 | Coachella Valley | 2 | 3 | 5 | 9 | 31 |
| 31 | East Riverside County | 2 | 3 | 5 | 9 | 31 |
| 32 | Northwest San Bernardino Valley | 2 | 3 | 5 | 11 | 41 |
| 33 | Southwest San Bernardino Valley | 2 | 3 | 5 | 11 | 41 |
| 34 | Central San Bernardino Valley | 2 | 3 | 5 | 9 | 29 |
| 35 | East San Bernardino Valley | 3 | 3 | 5 | 10 | 34 |
| 36 | West San Bernardino Mountains | 2 | 3 | 5 | 11 | 41 |
| 37 | Central San Bernardino Mountains | 2 | 3 | 5 | 9 | 29 |
| 38 | East San Bernardino Mountains | 3 | 3 | 5 | 10 | 34 |

Table C-6. PM2.5 Emission Thresholds for Construction

| SRA No. | Source Receptor Area | Significance Threshold of 10.4 ug/m ³ Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | | | | | | |
|---------|----------------------------------|--|----|-----|-----|-----|--------|----|-----|-----|-----|
| | | 1 Acre | | | | | 2 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 3 | 5 | 10 | 24 | 102 | 5 | 7 | 12 | 28 | 110 |
| 2 | Northwest Coastal LA County | 3 | 4 | 8 | 18 | 77 | 4 | 5 | 10 | 21 | 82 |
| 3 | Southwest Coastal LA County | 3 | 5 | 9 | 21 | 75 | 5 | 7 | 12 | 25 | 81 |
| 4 | South Coastal LA County | 3 | 5 | 10 | 26 | 93 | 5 | 7 | 13 | 30 | 101 |
| 5 | Southeast LA County | 3 | 4 | 8 | 19 | 86 | 4 | 6 | 10 | 22 | 92 |
| 6 | West San Fernando Valley | 3 | 4 | 7 | 18 | 79 | 4 | 5 | 9 | 21 | 84 |
| 7 | East San Fernando Valley | 3 | 4 | 8 | 18 | 68 | 4 | 6 | 10 | 21 | 73 |
| 8 | West San Gabriel Valley | 3 | 4 | 7 | 18 | 77 | 4 | 5 | 9 | 21 | 82 |
| 9 | East San Gabriel Valley | 3 | 5 | 9 | 22 | 94 | 5 | 7 | 12 | 26 | 100 |
| 10 | Pomona/Walnut Valley | 3 | 4 | 7 | 18 | 75 | 4 | 6 | 10 | 21 | 80 |
| 11 | South San Gabriel Valley | 4 | 5 | 9 | 20 | 83 | 5 | 8 | 12 | 24 | 89 |
| 12 | South Central LA County | 3 | 4 | 7 | 17 | 70 | 4 | 6 | 9 | 19 | 74 |
| 13 | Santa Clarita Valley | 3 | 4 | 7 | 18 | 74 | 4 | 5 | 9 | 20 | 80 |
| 15 | San Gabriel Mountains | 3 | 4 | 7 | 18 | 74 | 4 | 5 | 9 | 20 | 80 |
| 16 | North Orange County | 3 | 4 | 9 | 20 | 74 | 4 | 6 | 11 | 24 | 79 |
| 17 | Central Orange County | 3 | 4 | 9 | 22 | 85 | 4 | 6 | 11 | 25 | 92 |
| 18 | North Coastal Orange County | 3 | 5 | 9 | 22 | 76 | 5 | 7 | 12 | 26 | 83 |
| 19 | Saddleback Valley | 3 | 4 | 8 | 19 | 68 | 4 | 6 | 10 | 22 | 74 |
| 20 | Central Orange County Coastal | 3 | 5 | 9 | 22 | 76 | 5 | 7 | 12 | 26 | 83 |
| 21 | Capistrano Valley | 3 | 4 | 8 | 19 | 68 | 4 | 6 | 10 | 22 | 74 |
| 22 | Norco/Corona | 3 | 5 | 9 | 22 | 92 | 5 | 7 | 12 | 25 | 98 |
| 23 | Metropolitan Riverside County | 3 | 4 | 8 | 20 | 86 | 4 | 6 | 10 | 23 | 91 |
| 24 | Perris Valley | 3 | 4 | 8 | 20 | 86 | 4 | 6 | 10 | 23 | 91 |
| 25 | Lake Elsinore | 3 | 4 | 8 | 20 | 86 | 4 | 6 | 10 | 23 | 91 |
| 26 | Temecula Valley | 3 | 4 | 8 | 20 | 86 | 4 | 6 | 10 | 23 | 91 |
| 27 | Anza Area | 3 | 4 | 8 | 20 | 86 | 4 | 6 | 10 | 23 | 91 |
| 28 | Hemet/San Jacinto Valley | 3 | 4 | 8 | 20 | 86 | 4 | 6 | 10 | 23 | 91 |
| 29 | Banning Airport | 4 | 7 | 14 | 36 | 156 | 6 | 9 | 17 | 41 | 166 |
| 30 | Coachella Valley | 3 | 5 | 10 | 24 | 105 | 5 | 7 | 12 | 28 | 112 |
| 31 | East Riverside County | 3 | 5 | 10 | 24 | 105 | 5 | 7 | 12 | 28 | 112 |
| 32 | Northwest San Bernardino Valley | 4 | 6 | 12 | 32 | 141 | 5 | 8 | 14 | 36 | 150 |
| 33 | Southwest San Bernardino Valley | 4 | 6 | 12 | 32 | 141 | 5 | 8 | 14 | 36 | 150 |
| 34 | Central San Bernardino Valley | 3 | 5 | 9 | 23 | 98 | 4 | 6 | 12 | 26 | 104 |
| 35 | East San Bernardino Valley | 4 | 5 | 10 | 26 | 112 | 5 | 7 | 13 | 30 | 120 |
| 36 | West San Bernardino Mountains | 4 | 6 | 12 | 32 | 141 | 5 | 8 | 14 | 36 | 150 |
| 37 | Central San Bernardino Mountains | 3 | 5 | 9 | 23 | 98 | 4 | 6 | 12 | 26 | 104 |
| 38 | East San Bernardino Mountains | 4 | 5 | 10 | 26 | 112 | 5 | 7 | 13 | 30 | 120 |

Table C-6. PM2.5 Emission Thresholds for Construction (Continued)

| SRA No. | Source Receptor Area | Significance Threshold of 10.4 ug/m ³ Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site | | | | |
|---------|----------------------------------|--|----|-----|-----|-----|
| | | 5 Acre | | | | |
| | | 25 | 50 | 100 | 200 | 500 |
| 1 | Central LA | 8 | 11 | 18 | 36 | 126 |
| 2 | Northwest Coastal LA County | 6 | 8 | 14 | 29 | 95 |
| 3 | Southwest Coastal LA County | 8 | 11 | 19 | 35 | 96 |
| 4 | South Coastal LA County | 8 | 10 | 18 | 39 | 120 |
| 5 | Southeast LA County | 7 | 10 | 15 | 30 | 103 |
| 6 | West San Fernando Valley | 6 | 8 | 13 | 26 | 96 |
| 7 | East San Fernando Valley | 8 | 10 | 15 | 28 | 86 |
| 8 | West San Gabriel Valley | 7 | 9 | 14 | 27 | 93 |
| 9 | East San Gabriel Valley | 8 | 11 | 17 | 35 | 116 |
| 10 | Pomona/Walnut Valley | 7 | 9 | 15 | 28 | 93 |
| 11 | South San Gabriel Valley | 9 | 12 | 19 | 34 | 104 |
| 12 | South Central LA County | 7 | 10 | 15 | 27 | 86 |
| 13 | Santa Clarita Valley | 6 | 8 | 13 | 26 | 95 |
| 15 | San Gabriel Mountains | 6 | 8 | 13 | 26 | 95 |
| 16 | North Orange County | 6 | 9 | 15 | 34 | 95 |
| 17 | Central Orange County | 7 | 9 | 15 | 32 | 109 |
| 18 | North Coastal Orange County | 9 | 11 | 18 | 35 | 101 |
| 19 | Saddleback Valley | 8 | 11 | 16 | 30 | 90 |
| 20 | Central Orange County Coastal | 9 | 11 | 18 | 35 | 101 |
| 21 | Capistrano Valley | 8 | 11 | 16 | 30 | 90 |
| 22 | Norco/Corona | 8 | 11 | 18 | 34 | 113 |
| 23 | Metropolitan Riverside County | 8 | 10 | 16 | 31 | 105 |
| 24 | Perris Valley | 8 | 10 | 16 | 31 | 105 |
| 25 | Lake Elsinore | 8 | 10 | 16 | 31 | 105 |
| 26 | Temecula Valley | 8 | 10 | 16 | 31 | 105 |
| 27 | Anza Area | 8 | 10 | 16 | 31 | 105 |
| 28 | Hemet/San Jacinto Valley | 8 | 10 | 16 | 31 | 105 |
| 29 | Banning Airport | 11 | 14 | 25 | 55 | 189 |
| 30 | Coachella Valley | 8 | 11 | 19 | 37 | 128 |
| 31 | East Riverside County | 8 | 11 | 19 | 37 | 128 |
| 32 | Northwest San Bernardino Valley | 9 | 12 | 21 | 45 | 170 |
| 33 | Southwest San Bernardino Valley | 9 | 12 | 21 | 45 | 170 |
| 34 | Central San Bernardino Valley | 8 | 10 | 17 | 35 | 120 |
| 35 | East San Bernardino Valley | 9 | 12 | 20 | 40 | 140 |
| 36 | West San Bernardino Mountains | 9 | 12 | 21 | 45 | 170 |
| 37 | Central San Bernardino Mountains | 8 | 10 | 17 | 35 | 120 |
| 38 | East San Bernardino Mountains | 9 | 12 | 20 | 40 | 140 |

Antelope Valley Air Quality Management District

Significance Thresholds

From: Antelope Valley AQMD California Environmental
Quality Act (CEQA) and Federal Conformity Guidelines,
pages 6 and 7, and Table 6 (August 2016).

Significance Thresholds

Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1) is sufficient:

1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 6;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s) ¹;

¹ A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.*

**Refer to the Sensitive Receptor Land Use discussion above*

A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that a multi-phased project (such as a project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value.

Table 6 – Significant Emissions Thresholds

| Criteria Pollutant | Annual Threshold (tons) | Daily Threshold (pounds) |
|---|------------------------------------|-------------------------------------|
| Greenhouse Gases (CO ₂ e) | 100,000 | 548,000 |
| Carbon Monoxide (CO) | 100 | 548 |
| Oxides of Nitrogen (NO _x) | 25 | 137 |
| Volatile Organic Compounds (VOC) | 25 | 137 |
| Oxides of Sulfur (SO _x) | 25 | 137 |
| Particulate Matter (PM ₁₀) | 15 | 82 |
| Particulate Matter (PM _{2.5}) | 12 | 65 |
| Hydrogen Sulfide (H ₂ S) | 10 | 54 |
| Lead (Pb) | 0.6 | 3 |

Appendix C

Biological Resources



Special-Status Species Known to Occur in Los Angeles County

| Common Name | Scientific Name | Federal Status¹ | State Status² | CRPR³ | NatureServe⁴ |
|---|--|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| Plants | | | | | |
| red sand-verbena | <i>Abronia maritima</i> | None | None | | 4.2 S3? |
| heart-leaved thorn-mint | <i>Acanthomintha obovata ssp. cordata</i> | None | None | | 4.2 S3 |
| Abrams' oxlytheca | <i>Acanthoscyphus parishii var. abramsii</i> | None | None | 1B.2 | S1S2 |
| Parish's oxlytheca | <i>Acanthoscyphus parishii var. parishii</i> | None | None | | 4.2 S3S4 |
| San Clemente Island bird's-foot trefoil | <i>Acmispon argophyllus var. adsurgens</i> | None | SE | 1B.1 | S2 |
| island broom | <i>Acmispon dendroideus var. dendroideus</i> | None | None | | 4.2 S3 |
| San Clemente Island lotus | <i>Acmispon dendroideus var. traskiae</i> | FT | SE | 1B.3 | S3 |
| Mt. Pinos onion | <i>Allium howellii var. clokeyi</i> | None | None | 1B.3 | S2 |
| Watson's amaranth | <i>Amaranthus watsonii</i> | None | None | | 4.3 S3 |
| California androsace | <i>Androsace elongata ssp. acuta</i> | None | None | | 4.2 S3S4 |
| slender silver moss | <i>Anomobryum julaceum</i> | None | None | | 4.2 S2 |
| aphanisma | <i>Aphanisma blitoides</i> | None | None | 1B.2 | S2 |
| Santa Catalina Island manzanita | <i>Arctostaphylos catalinae</i> | None | None | 1B.2 | S2? |
| Santa Cruz Island manzanita | <i>Arctostaphylos crustacea ssp. subcordata</i> | None | None | | 4.2 S3 |
| San Gabriel manzanita | <i>Arctostaphylos glandulosa ssp. gabrielensis</i> | None | None | 1B.2 | S3 |
| interior manzanita | <i>Arctostaphylos parryana ssp. tumescens</i> | None | None | | 4.3 S3S4 |
| marsh sandwort | <i>Arenaria paludicola</i> | FE | SE | 1B.1 | S1 |
| island sagebrush | <i>Artemisia nesiotica</i> | None | None | | 4.3 S3 |
| western spleenwort | <i>Asplenium vesperinum</i> | None | None | | 4.2 S4 |
| crested milk-vetch | <i>Astragalus bicristatus</i> | None | None | | 4.3 S3 |
| Braunton's milk-vetch | <i>Astragalus brauntonii</i> | FE | None | 1B.1 | S2 |
| Horn's milk-vetch | <i>Astragalus hornii var. hornii</i> | None | None | 1B.1 | S1 |
| San Antonio milk-vetch | <i>Astragalus lentiginosus var. antonius</i> | None | None | 1B.3 | S2 |
| Big Bear Valley woollypod | <i>Astragalus leucolobus</i> | None | None | 1B.2 | S2 |
| San Miguel Island milk-vetch | <i>Astragalus miguelensis</i> | None | None | | 4.3 S4 |
| San Clemente Island milk-vetch | <i>Astragalus nevinii</i> | None | None | 1B.2 | S3 |
| Lancaster milk-vetch | <i>Astragalus preussii var. laxiflorus</i> | None | None | 1B.1 | S1 |
| Ventura Marsh milk-vetch | <i>Astragalus pycnostachyus var. lanosissimus</i> | FE | SE | 1B.1 | S1 |
| coastal dunes milk-vetch | <i>Astragalus tener var. titi</i> | FE | SE | 1B.1 | S1 |
| Coulter's saltbush | <i>Atriplex coulteri</i> | None | None | 1B.2 | S1S2 |
| south coast saltscale | <i>Atriplex pacifica</i> | None | None | 1B.2 | S2 |
| Parish's brittlescale | <i>Atriplex parishii</i> | None | None | 1B.1 | S1 |
| Davidson's saltscale | <i>Atriplex serenana var. davidsonii</i> | None | None | 1B.2 | S1 |
| Malibu baccharis | <i>Baccharis malibuensis</i> | None | None | 1B.1 | S1 |
| Plummer's baccharis | <i>Baccharis plummerae ssp. plummerae</i> | None | None | | 4.3 S3 |
| Nevin's barberry | <i>Berberis nevinii</i> | FE | SE | 1B.1 | S1 |
| golden-spined cereus | <i>Bergerocactus emoryi</i> | None | None | 2B.2 | S2 |
| scalloped moonwort | <i>Botrychium crenulatum</i> | None | None | 2B.2 | S3 |
| thread-leaved brodiaea | <i>Brodiaea filifolia</i> | FT | SE | 1B.1 | S2 |
| San Clemente Island brodiaea | <i>Brodiaea kinkiensis</i> | None | None | 1B.2 | S2 |
| Brewer's calandrinia | <i>Calandrinia breweri</i> | None | None | | 4.2 S4 |
| Catalina mariposa lily | <i>Calochortus catalinae</i> | None | None | | 4.2 S3S4 |
| club-haired mariposa lily | <i>Calochortus clavatus var. clavatus</i> | None | None | | 4.3 S3 |
| slender mariposa-lily | <i>Calochortus clavatus var. gracilis</i> | None | None | 1B.2 | S2S3 |
| late-flowered mariposa-lily | <i>Calochortus fimbriatus</i> | None | None | 1B.3 | S3 |
| Palmer's mariposa-lily | <i>Calochortus palmeri var. palmeri</i> | None | None | 1B.2 | S2 |
| Plummer's mariposa-lily | <i>Calochortus plummerae</i> | None | None | | 4.2 S4 |
| alkali mariposa-lily | <i>Calochortus striatus</i> | None | None | 1B.2 | S2S3 |
| intermediate mariposa-lily | <i>Calochortus weedii var. intermedius</i> | None | None | 1B.2 | S3 |
| lucky morning-glory | <i>Calystegia felix</i> | None | None | 1B.1 | S1 |
| island morning-glory | <i>Calystegia macrostegia ssp. amplissima</i> | None | None | | 4.3 S4 |

Special-Status Species Known to Occur in Los Angeles County

| Common Name | Scientific Name | Federal Status¹ | State Status² | CRPR³ | NatureServe⁴ |
|--------------------------------------|---|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| Peirson's morning-glory | <i>Calystegia peirsonii</i> | None | None | 4.2 | S4 |
| San Clemente Island evening-primrose | <i>Camissoniopsis guadalupensis ssp. clementina</i> | None | None | 1B.2 | S2 |
| Lewis' evening-primrose | <i>Camissoniopsis lewisii</i> | None | None | 3 | S4 |
| white pygmy-poppy | <i>Canbya candida</i> | None | None | 4.2 | S3S4 |
| western sedge | <i>Carex occidentalis</i> | None | None | 2B.3 | S3 |
| Mt. Gleason paintbrush | <i>Castilleja gleasoni</i> | None | Rare | 1B.2 | S2 |
| San Clemente Island paintbrush | <i>Castilleja grisea</i> | FT | SE | 1B.3 | S3 |
| Mojave paintbrush | <i>Castilleja plagiotoma</i> | None | None | 4.3 | S4 |
| island ceanothus | <i>Ceanothus megacarpus var. insularis</i> | None | None | 4.3 | S4 |
| southern tarplant | <i>Centromadia parryi ssp. australis</i> | None | None | 1B.1 | S2 |
| smooth tarplant | <i>Centromadia pungens ssp. laevis</i> | None | None | 1B.1 | S2 |
| island mountain-mahogany | <i>Cercocarpus betuloides var. blancheae</i> | None | None | 4.3 | S4 |
| Catalina Island mountain-mahogany | <i>Cercocarpus traskiae</i> | FE | SE | 1B.1 | S1 |
| Orcutt's pincushion | <i>Chaenactis glabriuscula var. orcuttiana</i> | None | None | 1B.1 | S1 |
| coastal goosefoot | <i>Chenopodium littoreum</i> | None | None | 1B.2 | S1 |
| salt marsh bird's-beak | <i>Chloropyron maritimum ssp. maritimum</i> | FE | SE | 1B.2 | S1 |
| Peninsular spineflower | <i>Chorizanthe leptotheca</i> | None | None | 4.2 | S3 |
| San Fernando Valley spineflower | <i>Chorizanthe parryi var. fernandina</i> | None | SE | 1B.1 | S1 |
| Parry's spineflower | <i>Chorizanthe parryi var. parryi</i> | None | None | 1B.1 | S2 |
| Mojave spineflower | <i>Chorizanthe spinosa</i> | None | None | 4.2 | S4 |
| compact cobwebby thistle | <i>Cirsium occidentale var. compactum</i> | None | None | 1B.2 | S2 |
| seaside cistanthe | <i>Cistanthe maritima</i> | None | None | 4.2 | S3 |
| California saw-grass | <i>Cladium californicum</i> | None | None | 2B.2 | S2 |
| Kern Canyon clarkia | <i>Clarkia xantiana ssp. parviflora</i> | None | None | 1B.1 | S3? |
| Peirson's spring beauty | <i>Claytonia peirsonii ssp. peirsonii</i> | None | None | 1B.2 | S2 |
| monkey-flower savory | <i>Clinopodium mimuloides</i> | None | None | 1B.2 | S3 |
| Nevin's woolly sunflower | <i>Constancea nevinii</i> | None | None | 1B.3 | S3 |
| small-flowered morning-glory | <i>Convolvulus simulans</i> | None | None | 1B.3 | S4 |
| island rush-rose | <i>Crocanthemum greenii</i> | FT | None | 1B.2 | S3 |
| Catalina crossosoma | <i>Crossosoma californicum</i> | None | None | 1B.2 | S3 |
| Clokey's cryptantha | <i>Cryptantha clokeyi</i> | None | None | 1B.2 | S3 |
| Trask's cryptantha | <i>Cryptantha traskiae</i> | None | None | 1B.1 | S2 |
| Wiggins' cryptantha | <i>Cryptantha wigginsii</i> | None | None | 1B.2 | S1 |
| Peruvian dodder | <i>Cuscuta obtusiflora var. glandulosa</i> | None | None | 2B.2 | SH |
| desert cymopterus | <i>Cymopterus deserticola</i> | None | None | 1B.2 | S2 |
| island tarplant | <i>Deinandra clementina</i> | None | None | 2B.2 | S4 |
| Santa Susana tarplant | <i>Deinandra minthornii</i> | None | Rare | 1B.2 | S2 |
| paniculate tarplant | <i>Deinandra paniculata</i> | None | None | 4.3 | S4 |
| Colorado Desert larkspur | <i>Delphinium parishii ssp. subglobosum</i> | None | None | 4.3 | S4 |
| Mt. Pinos larkspur | <i>Delphinium parryi ssp. purpureum</i> | None | None | 1B.3 | S4 |
| San Clemente Island larkspur | <i>Delphinium variegatum ssp. kinkiense</i> | FE | SE | 1B.1 | S2 |
| Thorne's royal larkspur | <i>Delphinium variegatum ssp. thornei</i> | None | None | 1B.1 | S1 |
| south island bush-poppy | <i>Dendromecon harfordii var. rhamnoides</i> | None | None | 3.1 | S1 |
| western dichondra | <i>Dichondra occidentalis</i> | None | None | 4.3 | S3S4 |
| Johnston's monkeyflower | <i>Diplacus johnstonii</i> | None | None | 4.3 | S4 |
| island bush monkeyflower | <i>Diplacus parviflorus</i> | None | None | 4.3 | S4 |
| Santa Catalina Island monkeyflower | <i>Diplacus traskiae</i> | None | None | 1A | SX |
| California dissanthelium | <i>Dissanthelium californicum</i> | None | None | 1B.2 | S1 |
| beach spectaclepod | <i>Dithyrea maritima</i> | None | ST | 1B.1 | S1 |
| slender-horned spineflower | <i>Dodecahema leptoceras</i> | FE | SE | 1B.1 | S1 |
| Ewan's woodbeauty | <i>Drymocallis cuneifolia var. ewanii</i> | None | None | 1B.3 | S2 |
| Blochman's dudleya | <i>Dudleya blochmaniae ssp. blochmaniae</i> | None | None | 1B.1 | S2 |

Special-Status Species Known to Occur in Los Angeles County

| Common Name | Scientific Name | Federal Status¹ | State Status² | CRPR³ | NatureServe⁴ |
|----------------------------------|---|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| Agoura Hills dudleya | <i>Dudleya cymosa ssp. agourensis</i> | FT | None | 1B.2 | S1 |
| San Gabriel River dudleya | <i>Dudleya cymosa ssp. crebrifolia</i> | None | None | 1B.2 | S2 |
| marcescent dudleya | <i>Dudleya cymosa ssp. marcescens</i> | FT | Rare | 1B.2 | S2 |
| Santa Monica dudleya | <i>Dudleya cymosa ssp. ovatifolia</i> | FT | None | 1B.1 | S1 |
| San Gabriel Mountains dudleya | <i>Dudleya densiflora</i> | None | None | 1B.1 | S2 |
| many-stemmed dudleya | <i>Dudleya multicaulis</i> | None | None | 1B.2 | S2 |
| Catalina Island dudleya | <i>Dudleya virens ssp. hassei</i> | None | None | 1B.2 | S2 |
| island green dudleya | <i>Dudleya virens ssp. insularis</i> | None | None | 1B.2 | S3 |
| bright green dudleya | <i>Dudleya virens ssp. virens</i> | None | None | 1B.2 | S2 |
| Rosamond eriastrum | <i>Eriastrum rosamondense</i> | None | None | 1B.1 | S1? |
| San Jacinto Mountains daisy | <i>Erigeron breweri var. jacinteus</i> | None | None | 2B.2 | S3 |
| conejo buckwheat | <i>Eriogonum crocatum</i> | None | Rare | 1B.1 | S1 |
| San Clemente Island buckwheat | <i>Eriogonum giganteum var. formosum</i> | None | None | 1B.2 | S3? |
| Santa Catalina Island buckwheat | <i>Eriogonum giganteum var. giganteum</i> | None | None | 1B.3 | S3 |
| island buckwheat | <i>Eriogonum grande var. grande</i> | None | None | | 4.3 S4 |
| southern alpine buckwheat | <i>Eriogonum kennedyi var. alpigenum</i> | None | None | 1B.3 | S3 |
| Johnston's buckwheat | <i>Eriogonum microthecum var. johnstonii</i> | None | None | 1B.3 | S2 |
| alpine sulfur-flowered buckwheat | <i>Eriogonum umbellatum var. minus</i> | None | None | 1B.3 | S4 |
| Barstow woolly sunflower | <i>Eriophyllum mohavense</i> | None | None | 1B.2 | S2 |
| San Diego button-celery | <i>Eryngium aristulatum var. parishii</i> | FE | SE | 1B.1 | S1 |
| island wallflower | <i>Erysimum insulare</i> | None | None | 1B.1 | S3 |
| suffrutescent wallflower | <i>Erysimum suffrutescens</i> | None | None | 1B.2 | S3 |
| Palomar monkeyflower | <i>Erythranthe diffusa</i> | None | None | | 4.2 S3 |
| island poppy | <i>Eschscholzia ramosa</i> | None | None | | 4.3 S4 |
| cliff spurge | <i>Euphorbia misera</i> | None | None | 1A | S2 |
| hot springs fimbristylis | <i>Fimbristylis thermalis</i> | None | None | 1B.2 | S1S2 |
| pine green-gentian | <i>Frasera neglecta</i> | None | None | 1B.2 | S4 |
| pine fritillary | <i>Fritillaria pinetorum</i> | None | None | | 4.3 S4 |
| San Antonio Canyon bedstraw | <i>Galium angustifolium ssp. gabriellense</i> | None | None | 1B.3 | S3 |
| slender bedstraw | <i>Galium angustifolium ssp. gracillimum</i> | None | None | 1B.3 | S4 |
| San Clemente Island bedstraw | <i>Galium catalinense ssp. acrispum</i> | None | SE | | 4.2 S3 |
| Santa Catalina Island bedstraw | <i>Galium catalinense ssp. catalinense</i> | None | None | 1B.2 | S2 |
| Santa Barbara bedstraw | <i>Galium cliftonsmithii</i> | None | None | 1B.1 | S4 |
| San Gabriel bedstraw | <i>Galium grande</i> | None | None | 1B.1 | S1 |
| Jepson's bedstraw | <i>Galium jepsonii</i> | None | None | | 4.2 S3 |
| Johnston's bedstraw | <i>Galium johnstonii</i> | None | None | 1B.2 | S4 |
| Nuttall's island bedstraw | <i>Galium nuttallii ssp. insulare</i> | None | None | 1B.1 | S4 |
| showy island snapdragon | <i>Gambelia speciosa</i> | None | None | 1B.3 | S3 |
| inland gilia | <i>Gilia interior</i> | None | None | | 4.2 S4 |
| Cuyama gilia | <i>Gilia latiflora ssp. cuyamensis</i> | None | None | 1B.2 | S4 |
| Nevin's gilia | <i>Gilia nevinii</i> | None | None | | 4.3 S4 |
| golden goodmania | <i>Goodmania luteola</i> | None | None | 1B.1 | S3 |
| Baja rock lichen | <i>Graphis saxorum</i> | None | None | 1A | S1 |
| Palmer's grapplinghook | <i>Harpagonella palmeri</i> | None | None | 1B.2 | S3 |
| San Clemente Island hazardia | <i>Hazardia cana</i> | None | None | 1B.2 | S3 |
| Newhall sunflower | <i>Helianthus inexpectatus</i> | None | None | 1B.3 | S1 |
| Los Angeles sunflower | <i>Helianthus nuttallii ssp. parishii</i> | None | None | | 4.2 SX |
| Abrams' alumroot | <i>Heuchera abramsii</i> | None | None | | 4.3 S3 |
| urn-flowered alumroot | <i>Heuchera caespitosa</i> | None | None | | 4.3 S3 |
| vernal barley | <i>Hordeum intercedens</i> | None | None | | 4.3 S3S4 |
| mesa horkelia | <i>Horkelia cuneata var. puberula</i> | None | None | | 4.2 S1 |
| San Gabriel Mountains sunflower | <i>Hulsea vestita ssp. gabrielensis</i> | None | None | 2B.2 | S3 |

Special-Status Species Known to Occur in Los Angeles County

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|------------------------------------|--|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| Parry's sunflower | <i>Hulsea vestita ssp. parryi</i> | None | None | 4.2 | S4 |
| California satintail | <i>Imperata brevifolia</i> | None | None | 4.2 | S3 |
| decumbent goldenbush | <i>Isocoma menziesii var. decumbens</i> | None | None | 4.2 | S2 |
| island jepsonia | <i>Jepsonia malvifolia</i> | None | None | 1B.2 | S4 |
| Southern California black walnut | <i>Juglans californica</i> | None | None | 4.3 | S4 |
| southwestern spiny rush | <i>Juncus acutus ssp. leopoldii</i> | None | None | 4.2 | S4 |
| Duran's rush | <i>Juncus duranii</i> | None | None | 1A | S3 |
| Coulter's goldfields | <i>Lasthenia glabrata ssp. coulteri</i> | None | None | 1B.2 | S2 |
| pride-of-California | <i>Lathyrus splendens</i> | None | None | 4.2 | S4 |
| island mallow | <i>Lavatera assurgentiflora ssp. assurgentiflora</i> | None | None | 1B.1 | S1 |
| southern island mallow | <i>Lavatera assurgentiflora ssp. glabra</i> | None | None | 1B.2 | S1 |
| fragrant pitcher sage | <i>Lepechinia fragrans</i> | None | None | 4.3 | S3 |
| Ross' pitcher sage | <i>Lepechinia rossii</i> | None | None | 1B.1 | S1 |
| Robinson's pepper-grass | <i>Lepidium virginicum var. robinsonii</i> | None | None | 1B.1 | S3 |
| pygmy leptosiphon | <i>Leptosiphon pygmaeus ssp. pygmaeus</i> | None | None | 1B.2 | S1 |
| spring lessingia | <i>Lessingia tenuis</i> | None | None | 4.3 | S4 |
| short-sepaled lewisia | <i>Lewisia brachycalyx</i> | None | None | 4.2 | S2 |
| Humboldt lily | <i>Lilium humboldtii ssp. humboldtii</i> | None | None | 4.2 | S3 |
| ocellated Humboldt lily | <i>Lilium humboldtii ssp. ocellatum</i> | None | None | 4.2 | S4? |
| lemon lily | <i>Lilium parryi</i> | None | None | 1B.2 | S3 |
| San Gabriel linanthus | <i>Linanthus concinnus</i> | None | None | 1B.3 | S2 |
| San Clemente Island woodland star | <i>Lithophragma maximum</i> | FE | SE | 1B.2 | S1 |
| sagebrush loeflingia | <i>Loeflingia squarrosa var. artemisiarum</i> | None | None | 1B.2 | S2 |
| San Nicolas Island lomatium | <i>Lomatium insulare</i> | None | None | 1B.2 | S2S3 |
| Santa Barbara honeysuckle | <i>Lonicera subspicata var. subspicata</i> | None | None | 4.2 | S2? |
| interior bush lupine | <i>Lupinus albifrons var. johnstonii</i> | None | None | 1B.2 | S4 |
| silky lupine | <i>Lupinus elatus</i> | None | None | 1B.3 | S4 |
| Guadalupe Island lupine | <i>Lupinus guadalupensis</i> | None | None | 3 | S3 |
| Payne's bush lupine | <i>Lupinus paynei</i> | None | None | 4.2 | S1 |
| Peirson's lupine | <i>Lupinus peirsonii</i> | None | None | 4.2 | S3 |
| Santa Catalina Island desert-thorn | <i>Lycium brevipes var. hassei</i> | None | None | 1B.1 | S1 |
| California box-thorn | <i>Lycium californicum</i> | None | None | 4.2 | S4 |
| Torrey's box-thorn | <i>Lycium torreyi</i> | None | None | 4.2 | S3 |
| Santa Cruz Island ironwood | <i>Lyonothamnus floribundus ssp. aspleniifolius</i> | None | None | 1B.2 | S3 |
| Santa Catalina Island ironwood | <i>Lyonothamnus floribundus ssp. floribundus</i> | None | None | 4.3 | S2 |
| San Clemente Island bush-mallow | <i>Malacothamnus clementinus</i> | FE | SE | 1B.3 | S2S3 |
| Davidson's bush-mallow | <i>Malacothamnus davidsonii</i> | None | None | 4.2 | S2 |
| Santa Catalina Island bush-mallow | <i>Malacothamnus fasciculatus var. catalinensis</i> | None | None | 4.2 | S2 |
| leafy malacothrix | <i>Malacothrix foliosa ssp. foliosa</i> | None | None | 3.2 | S3 |
| small-flowered microseris | <i>Microseris douglasii ssp. platycarpa</i> | None | None | 4.3 | S4 |
| sylvan microseris | <i>Microseris sylvatica</i> | None | None | 4.3 | S4 |
| gray monardella | <i>Monardella australis ssp. cinerea</i> | None | None | 4.2 | S3 |
| white-veined monardella | <i>Monardella hypoleuca ssp. hypoleuca</i> | None | None | 1B.1 | S3 |
| Tehachapi monardella | <i>Monardella linoides ssp. oblonga</i> | None | None | 4.2 | S2 |
| Hall's monardella | <i>Monardella macrantha ssp. hallii</i> | None | None | 1B.2 | S3 |
| rock monardella | <i>Monardella saxicola</i> | None | None | 4.2 | S3 |
| green monardella | <i>Monardella viridis</i> | None | None | 2B.2 | S3 |
| California spineflower | <i>Mucronea californica</i> | None | None | 4.3 | S3 |
| appressed muhly | <i>Muhlenbergia appressa</i> | None | None | 2B.2 | S3 |
| California muhly | <i>Muhlenbergia californica</i> | None | None | 1B.2 | S4 |
| crowned muilla | <i>Muilla coronata</i> | None | None | 1B.2 | S3 |
| Blair's munzothamnus | <i>Munzothamnus blairii</i> | None | None | 1B.2 | S3 |

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|------------------------------------|---|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| mud nama | <i>Nama stenocarpa</i> | None | None | 1B.3 | S1S2 |
| Gambel's water cress | <i>Nasturtium gambelii</i> | FE | ST | 1B.1 | S1 |
| spreading navarretia | <i>Navarretia fossalis</i> | FT | None | | 4.2 S2 |
| Ojai navarretia | <i>Navarretia ojaiensis</i> | None | None | 1B.2 | S2 |
| Baja navarretia | <i>Navarretia peninsularis</i> | None | None | | 4.3 S2 |
| prostrate vernal pool navarretia | <i>Navarretia prostrata</i> | None | None | 2B.2 | S2 |
| Piute Mountains navarretia | <i>Navarretia setiloba</i> | None | None | 2B.2 | S2 |
| coast woolly-heads | <i>Nemacaulis denudata</i> var. <i>denudata</i> | None | None | 1B.1 | S2 |
| Robbins' nemacladus | <i>Nemacladus secundiflorus</i> var. <i>robbinsii</i> | None | None | | 4.2 S2 |
| chaparral nolina | <i>Nolina cismontana</i> | None | None | 1B.2 | S3 |
| California adder's-tongue | <i>Ophioglossum californicum</i> | None | None | | 4.2 S4 |
| short-joint beavertail | <i>Opuntia basilaris</i> var. <i>brachyclada</i> | None | None | | 4.2 S3 |
| California Orcutt grass | <i>Orcuttia californica</i> | FE | SE | | 4.3 S1 |
| woolly mountain-parsley | <i>Oreonana vestita</i> | None | None | | 4.3 S3 |
| short-lobed broomrape | <i>Orobanche parishii</i> ssp. <i>brachyloba</i> | None | None | | 4.2 S3 |
| Rock Creek broomrape | <i>Orobanche valida</i> ssp. <i>valida</i> | None | None | 1B.1 | S2 |
| rock-loving oxytrope | <i>Oxytropis oreophila</i> var. <i>oreophila</i> | None | None | 2B.3 | S2 |
| Tehachapi ragwort | <i>Packera ionophylla</i> | None | None | 1B.1 | S4 |
| San Bernardino grass-of-Parnassus | <i>Parnassia cirrata</i> var. <i>cirrata</i> | None | None | | 4.2 S2 |
| Lyon's pentachaeta | <i>Pentachaeta lyonii</i> | FE | SE | 1B.2 | S1 |
| adobe yampah | <i>Perideridia pringlei</i> | None | None | 1B.2 | S4 |
| many-flowered phacelia | <i>Phacelia floribunda</i> | None | None | | 4.3 S2 |
| Hubby's phacelia | <i>Phacelia hubbyi</i> | None | None | | 4.3 S4 |
| Lyon's phacelia | <i>Phacelia lyonii</i> | None | None | | 4.3 S2 |
| Mojave phacelia | <i>Phacelia mohavensis</i> | None | None | 1B.1 | S4 |
| south coast branching phacelia | <i>Phacelia ramosissima</i> var. <i>australitoralis</i> | None | None | 1B.2 | S3 |
| Brand's star phacelia | <i>Phacelia stellaris</i> | None | None | | 4.2 S1 |
| chaparral rein orchid | <i>Piperia cooperi</i> | None | None | | 4.2 S3S4 |
| Parish's popcornflower | <i>Plagiobothrys parishii</i> | None | None | | 4.3 S1 |
| Fish's milkwort | <i>Polygala cornuta</i> var. <i>fishiae</i> | None | None | 1B.2 | S4 |
| Ballona cinquefoil | <i>Potentilla multijuga</i> | None | None | 1B.2 | SX |
| white rabbit-tobacco | <i>Pseudognaphalium leucocephalum</i> | None | None | 2B.3 | S2 |
| California alkali grass | <i>Puccinellia simplex</i> | None | None | 1B.3 | S2 |
| Nuttall's scrub oak | <i>Quercus dumosa</i> | None | None | | 4.2 S3 |
| San Gabriel oak | <i>Quercus durata</i> var. <i>gabrielensis</i> | None | None | 1B.1 | S3 |
| Engelmann oak | <i>Quercus engelmannii</i> | None | None | 1B.2 | S3 |
| island scrub oak | <i>Quercus pacifica</i> | None | None | | 4.2 S4 |
| island oak | <i>Quercus tomentella</i> | None | None | 1B.2 | S3S4 |
| island redberry | <i>Rhamnus pirtfolia</i> | None | None | 1B.2 | S4 |
| Parish's gooseberry | <i>Ribes divaricatum</i> var. <i>parishii</i> | None | None | 2B.2 | SX |
| Santa Catalina Island currant | <i>Ribes viburnifolium</i> | None | None | 2B.1 | S2? |
| Coulter's matilija poppy | <i>Romneya coulteri</i> | None | None | 1B.2 | S4 |
| Parish's rupertia | <i>Rupertia rigida</i> | None | None | 1B.1 | S4 |
| Santa Catalina figwort | <i>Scrophularia villosa</i> | None | None | | 4.3 S3 |
| southern mountains skullcap | <i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> | None | None | | 4.2 S3 |
| bluish spike-moss | <i>Selaginella asprella</i> | None | None | 2B.2 | S4 |
| chaparral ragwort | <i>Senecio aphanactis</i> | None | None | | 4.2 S2 |
| San Gabriel ragwort | <i>Senecio astephanus</i> | None | None | | 4.2 S3 |
| Santa Cruz Island winged-rockcress | <i>Sibara filifolia</i> | FE | None | | 3.2 S2 |
| salt spring checkerbloom | <i>Sidalcea neomexicana</i> | None | None | 1B.1 | S2 |
| chickweed oxytheca | <i>Sidotheca caryophylloides</i> | None | None | 1B.2 | S4 |
| Wallace's nightshade | <i>Solanum wallacei</i> | None | None | | 4.2 S2 |

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|---|---|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| western bristly scaleseed | <i>Spermolepis lateriflora</i> | None | None | 1B.1 | SH |
| southern jewelflower | <i>Streptanthus campestris</i> | None | None | 1B.2 | S3 |
| Mason's neststraw | <i>Stylocline masonii</i> | None | None | 1B.2 | S1 |
| estuary seablite | <i>Suaeda esteroa</i> | None | None | 1B.2 | S2 |
| woolly seablite | <i>Suaeda taxifolia</i> | None | None | 2B.2 | S4 |
| San Bernardino aster | <i>Symphotrichum defoliatum</i> | None | None | 1B.2 | S2 |
| Greata's aster | <i>Symphotrichum greatae</i> | None | None | 1B.3 | S2 |
| Lemmon's syntrichopappus | <i>Syntrichopappus lemmonii</i> | None | None | 1B.2 | S4 |
| woven-spored lichen | <i>Texosporium sancti-jacobi</i> | None | None | 1B.1 | S2 |
| Sonoran maiden fern | <i>Thelypteris puberula var. sonorensis</i> | None | None | | 3 S2 |
| rigid fringepod | <i>Thysanocarpus rigidus</i> | None | None | | 3 S2 |
| California screw moss | <i>Tortula californica</i> | None | None | 1B.1 | S2? |
| southern island clover | <i>Trifolium palmeri</i> | None | None | | 4.2 S4 |
| San Clemente Island triteleia | <i>Triteleia clementina</i> | None | None | 1B.2 | S2 |
| grey-leaved violet | <i>Viola pinetorum ssp. grisea</i> | None | None | 2A | S3 |
| Joshua tree | <i>Yucca brevifolia</i> | None | SC | 1B.1 | SNR |
| Invertebrates | | | | | |
| Belkin's dune tabanid fly | <i>Brennania belkini</i> | None | None | - | S1S2 |
| California diplectronan caddisfly | <i>Diplectrona californica</i> | None | None | - | S1S2 |
| Catalina mountainsnail | <i>Radiocentrum avalonense</i> | None | None | - | S1 |
| Crotch bumble bee | <i>Bombus crotchii</i> | None | None | - | S1S2 |
| Desert cuckoo wasp | <i>Ceratochrysis longimala</i> | None | None | - | S1 |
| Dohrn's elegant eucnemid beetle | <i>Palaeoxenus dohrni</i> | None | None | - | S3? |
| Dorothy's El Segundo Dune weevil | <i>Trigonoscuta dorothea dorothea</i> | None | None | - | S1 |
| El Segundo blue butterfly | <i>Euphilotes battoides allyni</i> | FE | None | - | S1 |
| El Segundo flower-loving fly | <i>Rhaphiomidas terminatus terminatus</i> | None | None | - | S1 |
| Gertsch's socialchemmis spider | <i>Socalchemmis gertschi</i> | None | None | - | S1 |
| globose dune beetle | <i>Coelus globosus</i> | None | None | - | S1S2 |
| Grapevine shoulderband | <i>Helminthoglypta uvasana</i> | None | None | - | S1 |
| Henne's eucosman moth | <i>Eucosma hennei</i> | None | None | - | S1 |
| horseshoe snail | <i>Xerarionta intercisa</i> | None | None | - | S1 |
| Lange's El Segundo Dune weevil | <i>Onychobaris langei</i> | None | None | - | S1 |
| mimic tryonia (=California brackishwater sn Tryonia imitator) | | None | None | - | S2 |
| monarch - California overwintering populati | <i>Danaus plexippus pop. 1</i> | FC | None | - | S2S3 |
| Morrison bumble bee | <i>Bombus morrisoni</i> | None | None | - | S1S2 |
| Pacoima shoulderband | <i>Helminthoglypta traskii pacoimensis</i> | None | None | - | S1 |
| Palos Verdes blue butterfly | <i>Glaucopsyche lygdamus palosverdesensis</i> | FE | None | - | S1 |
| quino checkerspot butterfly | <i>Euphydryas editha quino</i> | FE | None | - | S1S2 |
| Riverside fairy shrimp | <i>Streptocephalus woottoni</i> | FE | None | - | S1S2 |
| San Clemente Island blunt-top snail | <i>Sterkia clementina</i> | None | None | - | S1S2 |
| San Clemente Island coenonycha beetle | <i>Coenonycha clementina</i> | None | None | - | S1S2 |
| San Clemente islandsnail | <i>Micrarionta gabbi</i> | None | None | - | S1 |
| San Emigdio blue butterfly | <i>Plebulina emigdionis</i> | None | None | - | S1S2 |
| San Gabriel chestnut | <i>Glyptostoma gabrielense</i> | None | None | - | S2 |
| San Gabriel Mountains blue butterfly | <i>Icaricia saepiolus aureolus</i> | None | None | - | S1 |
| San Gabriel Mountains elfin butterfly | <i>Callophrys mossii hidakupa</i> | None | None | - | S1S2 |
| sandy beach tiger beetle | <i>Cicindela hirticollis gravida</i> | None | None | - | S2 |
| Santa Catalina lancetooth | <i>Haplotrema catalinense</i> | None | None | - | S1 |
| Santa Monica grasshopper | <i>Trimerotropis occidentiloides</i> | None | None | - | S1S2 |
| Santa Monica shieldback katydid | <i>Aglaothorax longipennis</i> | None | None | - | S1S2 |
| senile tiger beetle | <i>Cicindela senilis frosti</i> | None | None | - | S1 |
| Shepard's snail | <i>Pristiloma shepardae</i> | None | None | - | S1 |

Special-Status Species Known to Occur in Los Angeles County

| Common Name | Scientific Name | Federal Status¹ | State Status² | CRPR³ | NatureServe⁴ |
|--------------------------------------|--|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| Soledad shoulderband | <i>Helminthoglypta fontiphila</i> | None | None | - | S1 |
| Vasquez shoulderband | <i>Helminthoglypta vasquezi</i> | None | None | - | S1 |
| vernal pool fairy shrimp | <i>Branchinecta lynchi</i> | FT | None | - | S3 |
| wandering (=saltmarsh) skipper | <i>Panoquina errans</i> | None | None | - | S2 |
| Wawona riffle beetle | <i>Atractelmis wawona</i> | None | None | - | S1S2 |
| western beach tiger beetle | <i>Cicindela latesignata</i> | None | None | - | S1 |
| western ridged mussel | <i>Gonidea angulata</i> | None | None | - | S1S2 |
| western tidal-flat tiger beetle | <i>Habroscelimorpha gabbii</i> | None | None | - | S1 |
| wreathed cactusnail | <i>Xerarionta redimita</i> | None | None | - | S1 |
| Fish | | | | | |
| arroyo chub | <i>Gila orcuttii</i> | None | SSC | - | S1 |
| Mohave tui chub | <i>Siphateles bicolor mohavensis</i> | FE | FP | - | S3 |
| Santa Ana speckled dace | <i>Rhinichthys osculus</i> ssp. 8 | None | SSC | - | S1 |
| Santa Ana sucker | <i>Catostomus santaanae</i> | FT | None | - | S2 |
| steelhead - southern California DPS | <i>Oncorhynchus mykiss irideus</i> pop. 10 | FE | None | - | S1 |
| tidewater goby | <i>Eucyclogobius newberryi</i> | FE | None | - | S1 |
| unarmored threespine stickleback | <i>Gasterosteus aculeatus williamsoni</i> | FE | SE, FP | - | S1 |
| Amphibians | | | | | |
| arroyo toad | <i>Anaxyrus californicus</i> | FE | SSC | - | S2S3 |
| California red-legged frog | <i>Rana draytonii</i> | FT | SSC | - | S2S3 |
| Coast Range newt | <i>Taricha torosa</i> | None | SSC | - | S4 |
| foothill yellow-legged frog | <i>Rana boylei</i> | None | SE, SSC | - | S3 |
| large-blotched salamander | <i>Ensatina eschscholtzii klauberi</i> | None | WL | - | S3 |
| San Gabriel slender salamander | <i>Batrachoseps gabrieli</i> | None | None | - | S2S3 |
| southern mountain yellow-legged frog | <i>Rana muscosa</i> | FE | SE | - | S1 |
| western spadefoot | <i>Spea hammondi</i> | None | SSC | - | S3 |
| yellow-blotched salamander | <i>Ensatina eschscholtzii croceater</i> | None | WL | - | S3 |
| Reptiles | | | | | |
| California glossy snake | <i>Arizona elegans occidentalis</i> | None | SSC | - | S2 |
| California legless lizard | <i>Anniella</i> spp. | None | SSC | - | S3S4 |
| coast horned lizard | <i>Phrynosoma blainvillii</i> | None | SSC | - | S3S4 |
| coastal whiptail | <i>Aspidoscelis tigris stejnegeri</i> | None | SSC | - | S3 |
| desert tortoise | <i>Gopherus agassizii</i> | FT | ST | - | S2S3 |
| green turtle | <i>Chelonia mydas</i> | FT | None | - | S4 |
| island night lizard | <i>Xantusia riversiana</i> | None | None | - | S3 |
| Northern California legless lizard | <i>Anniella pulchra</i> | None | SSC | - | S3 |
| red-diamond rattlesnake | <i>Crotalus ruber</i> | None | SSC | - | S3 |
| San Bernardino ringneck snake | <i>Diadophis punctatus modestus</i> | None | None | - | S2? |
| Southern California legless lizard | <i>Anniella stebbinsi</i> | None | SSC | - | S3 |
| two-striped gartersnake | <i>Thamnophis hammondi</i> | None | SSC | - | S3S4 |
| western pond turtle | <i>Emys marmorata</i> | None | SSC | - | S3 |
| Birds | | | | | |
| American peregrine falcon | <i>Falco peregrinus anatum</i> | None | FP | - | S3S4 |
| ashy storm-petrel | <i>Hydrobates homochroa</i> | None | SSC | - | S2 |
| bald eagle | <i>Haliaeetus leucocephalus</i> | None | SE, FP | - | S3 |
| bank swallow | <i>Riparia riparia</i> | None | ST | - | S2 |
| Belding's savannah sparrow | <i>Passerculus sandwichensis beldingi</i> | None | SE | - | S3 |
| Bell's sage sparrow | <i>Artemisospiza belli belli</i> | None | WL | - | S3 |
| black swift | <i>Cypseloides niger</i> | None | SSC | - | S2 |
| burrowing owl | <i>Athene cunicularia</i> | None | SSC | - | S3 |
| California black rail | <i>Laterallus jamaicensis coturniculus</i> | None | ST, FP | - | S1 |
| California brown pelican | <i>Pelecanus occidentalis californicus</i> | None | FP | - | S3 |

Special-Status Species Known to Occur in Los Angeles County

| Common Name | Scientific Name | Federal Status¹ | State Status² | CRPR³ | NatureServe⁴ |
|--|---|-----------------------------------|---------------------------------|-------------------------|--------------------------------|
| California condor | <i>Gymnogyps californianus</i> | FE | SE, FP | - | S1 |
| California horned lark | <i>Eremophila alpestris actia</i> | None | WL | - | S4 |
| California least tern | <i>Sternula antillarum browni</i> | FE | SE, FP | - | S2 |
| Channel Island song sparrow | <i>Melospiza melodia graminea</i> | None | SSC | - | S1 |
| coastal cactus wren | <i>Campylorhynchus brunneicapillus sandiegensis</i> | None | SSC | - | S3 |
| coastal California gnatcatcher | <i>Poliopitila californica californica</i> | FT | SSC | - | S2 |
| Cooper's hawk | <i>Accipiter cooperii</i> | None | WL | - | S4 |
| ferruginous hawk | <i>Buteo regalis</i> | WL | None | - | S3S4 |
| golden eagle | <i>Aquila chrysaetos</i> | None | FP | - | S3 |
| grasshopper sparrow | <i>Ammodramus savannarum</i> | None | SSC | - | S3 |
| Le Conte's thrasher | <i>Toxostoma lecontei</i> | None | SSC | - | S3 |
| least Bell's vireo | <i>Vireo bellii pusillus</i> | FE | SE | - | S2 |
| loggerhead shrike | <i>Lanius ludovicianus</i> | None | SSC | - | S4 |
| merlin | <i>Falco columbarius</i> | None | WL | - | S3S4 |
| mountain plover | <i>Charadrius montanus</i> | None | SSC | - | S2S3 |
| northern harrier | <i>Circus hudsonius</i> | None | SSC | - | S3 |
| prairie falcon | <i>Falco mexicanus</i> | None | WL | - | S4 |
| San Clemente loggerhead shrike | <i>Lanius ludovicianus mearnsi</i> | FE | SSC | - | S1 |
| San Clemente sage sparrow | <i>Artemisospiza belli clementeae</i> | FT | SSC | - | S2 |
| Scripps's murrelet | <i>Synthliboramphus scrippsi</i> | None | ST | - | S2 |
| short-eared owl | <i>Asio flammeus</i> | None | SSC | - | S3 |
| southern California rufous-crowned sparrow | <i>Aimophila ruficeps canescens</i> | None | WL | - | S3 |
| southwestern willow flycatcher | <i>Empidonax traillii extimus</i> | FE | SE | - | S1 |
| Swainson's hawk | <i>Buteo swainsoni</i> | None | ST | - | S3 |
| tricolored blackbird | <i>Agelaius tricolor</i> | None | ST, SSC | - | S1S2 |
| western snowy plover | <i>Charadrius nivosus nivosus</i> | FT | SSC | - | S2 |
| western yellow-billed cuckoo | <i>Coccyzus americanus occidentalis</i> | FT | SE | - | S1 |
| white-faced ibis | <i>Plegadis chihi</i> | None | WL | - | S3S4 |
| white-tailed kite | <i>Elanus leucurus</i> | None | FP | - | S3S4 |
| yellow rail | <i>Coturnicops noveboracensis</i> | None | SSC | - | S1S2 |
| yellow warbler | <i>Setophaga petechia</i> | None | SSC | - | S3S4 |
| yellow-breasted chat | <i>Icteria virens</i> | None | SSC | - | S3 |
| Mammals | | | | | |
| American badger | <i>Taxidea taxus</i> | None | SSC | - | S3 |
| big free-tailed bat | <i>Nyctinomops macrotis</i> | None | SSC | - | S3 |
| California leaf-nosed bat | <i>Macrotus californicus</i> | None | SSC | - | S3 |
| desert bighorn sheep | <i>Ovis canadensis nelsoni</i> | None | FP | - | S3 |
| fringed myotis | <i>Myotis thysanodes</i> | None | None | - | S3 |
| lodgepole chipmunk | <i>Neotamias speciosus speciosus</i> | None | None | - | S2S3 |
| long-eared myotis | <i>Myotis evotis</i> | None | None | - | S3 |
| long-legged myotis | <i>Myotis volans</i> | None | None | - | S3 |
| Los Angeles pocket mouse | <i>Perognathus longimembris brevinasus</i> | None | SSC | - | S1S2 |
| Mohave ground squirrel | <i>Xerospermophilus mohavensis</i> | None | ST | - | S2S3 |
| Nelson's (=San Joaquin) antelope squirrel | <i>Ammospermophilus nelsoni</i> | None | ST | - | S2S3 |
| northwestern San Diego pocket mouse | <i>Chaetodipus fallax fallax</i> | None | SSC | - | S3S4 |
| Pacific pocket mouse | <i>Perognathus longimembris pacificus</i> | FE | SSC | - | S1 |
| pallid bat | <i>Antrozous pallidus</i> | None | SSC | - | S3 |
| pallid San Diego pocket mouse | <i>Chaetodipus fallax pallidus</i> | None | SSC | - | S3S4 |
| pocketed free-tailed bat | <i>Nyctinomops femorosaccus</i> | None | SSC | - | S3 |
| San Bernardino kangaroo rat | <i>Dipodomys merriami parvus</i> | FE | SC, SSC | - | S1 |
| San Clemente Island fox | <i>Urocyon littoralis clementae</i> | None | ST | - | S1 |
| San Diego black-tailed jackrabbit | <i>Lepus californicus bennettii</i> | None | SSC | - | S3S4 |

Special-Status Species Known to Occur in Los Angeles County

| Common Name | Scientific Name | Federal Status ¹ | State Status ² | CRPR ³ | NatureServe ⁴ |
|-------------------------------------|--|-----------------------------|---------------------------|-------------------|--------------------------|
| San Diego desert woodrat | <i>Neotoma lepida intermedia</i> | None | SSC | - | S3S4 |
| San Joaquin pocket mouse | <i>Perognathus inornatus</i> | None | None | - | S2S3 |
| Santa Catalina Island fox | <i>Urocyon littoralis catalinae</i> | FT | ST | - | S1 |
| Santa Catalina shrew | <i>Sorex ornatus willetti</i> | None | SSC | - | S1 |
| silver-haired bat | <i>Lasionycteris noctivagans</i> | None | None | - | S3S4 |
| south coast marsh vole | <i>Microtus californicus stephensi</i> | None | SSC | - | S1S2 |
| southern California saltmarsh shrew | <i>Sorex ornatus salicornicus</i> | None | SSC | - | S1 |
| southern grasshopper mouse | <i>Onychomys torridus ramona</i> | None | SSC | - | S3 |
| spotted bat | <i>Euderma maculatum</i> | None | SSC | - | S3 |
| Tehachapi pocket mouse | <i>Perognathus alticola inexpectatus</i> | None | SSC | - | S1S2 |
| Townsend's big-eared bat | <i>Corynorhinus townsendii</i> | None | SSC | - | S2 |
| western mastiff bat | <i>Eumops perotis californicus</i> | None | SSC | - | S3S4 |
| western red bat | <i>Lasiurus blossevillii</i> | None | SSC | - | S3 |
| western small-footed myotis | <i>Myotis ciliolabrum</i> | None | None | - | S3 |
| western yellow bat | <i>Lasiurus xanthinus</i> | None | SSC | - | S3 |

¹Federal Status

| | | | |
|----|-----------------------------|----|-----------------------------|
| FE | <i>Federally Endangered</i> | FT | <i>Federally Threatened</i> |
| FC | <i>Federal Candidate</i> | | |

²State Status

| | | | |
|-------|---|------|-----------------------------|
| SE | <i>State Listed as Endangered</i> | SC | <i>State Candidate</i> |
| ST | <i>State Listed as Threatened</i> | Rare | <i>State Rare</i> |
| SSC | <i>CDFW Species of Special Concern</i> | FP | <i>CDFW Fully Protected</i> |
| BGEPA | <i>Bald and Golden Eagle Protection Act</i> | | |

³California Rare Plant Ranks (CRPR)

| | |
|----|--|
| 1A | <i>Plants presumed extirpated in California and either rare or extinct elsewhere</i> |
| 1B | <i>Plants rare, threatened, or endangered in California and elsewhere</i> |
| 2A | <i>Plants presumed extirpated in California but common elsewhere</i> |
| 2B | <i>Plants rare, threatened, or endangered in California, but common elsewhere</i> |
| 3 | <i>Plants about which more information is needed, a review list</i> |

Threat Code extensions and their meanings:

- 0.1 *Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)*
- 0.2 *Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)*
- 0.3 *Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)*

⁴NatureServe SRank Codes

| | | |
|----|-----------------------------|---|
| | | <i>A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4). By adding a "?" to the rank: e.g., S2?; this represents more certainty than S2S3, but less certainty than S2.</i> |
| S1 | <i>Critically Imperiled</i> | <i>At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.</i> |
| S2 | <i>Imperiled</i> | <i>At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.</i> |
| S3 | <i>Vulnerable</i> | <i>At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.</i> |
| S4 | <i>Apparently Secure</i> | <i>At a fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.</i> |
| SH | <i>Possibly Extirpated</i> | <i>Known from only historical records but still some hope of rediscovery. There is evidence that the species or ecosystem may no longer be present in the jurisdiction, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species or ecosystem has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.</i> |

Appendix D

Greenhouse Gas Emissions



APPENDIX A

Greenhouse Gas Accounting Methods, Business-as-Usual Forecast, and Emission Reduction Targets

Purpose

This Appendix describes the greenhouse gas (GHG) accounting and projections methods for calendar year 2015 and 2018 for unincorporated Los Angeles County (henceforth referred to as “Unincorporated Los Angeles County” unless otherwise specified). It also presents methods for the 1990 and 2010 emissions backcasts; the business-as-usual (BAU) forecasts for 2030, 2035, and 2045; and the derivation of the 2045 CAP’s emission reduction targets for 2030, 2035, and 2045. The document is organized into four sections corresponding with the following objectives:

Section A.1: Greenhouse Gas Emissions Inventory: 2015 and 2018

This section describes the methods for estimating baseline 2015 GHG emissions from community-induced activities and sources along with updated emission for the year 2018. The community-scale inventory includes emissions from transportation; stationary energy; industrial processes and product use (IPPU); waste and wastewater; and agriculture, forestry, and other land use (AFOLU) emissions.

Section A.2: 1990 and 2010 Greenhouse Gas Inventory and Backcasting Methods

This section describes the approach for estimating unincorporated Los Angeles County’s GHG emissions in the year 2010 and 1990. The backcast aligns the 2010 inventory with the updated methods and emission factors used in the 2015 and 2018 inventory updates, and projects emissions back to 1990 for purposes of aligning the 2045 CAP’s target with the statewide target for 2030.

Section A.3: 2018 to 2045 Business-as-Usual Forecasts

This section describes the approach for modeling the BAU scenario, which projects future emissions based on current population and regional growth trends, land use growth patterns, and regulations or policies introduced before the 2018 inventory year. The BAU scenario demonstrates the growth in GHG emissions that would occur if no further action were to be taken by the County of Los Angeles (County) or the State of California after 2018.

Section A.4: Derivation of the 2045 CAP's Emission Reduction Targets

This section describes the approach taken to derive the 2045 CAP's GHG emission reduction targets for 2030, 2035, and 2045, and how these targets align with the statewide targets codified in SB 32 for 2030 and EO B-55-18 for 2045. This section provides substantial evidence for CEQA purposes that the 2045 CAP's targets represent levels of significance for the cumulative impact of unincorporated Los Angeles County's GHG emissions.

A.1 Greenhouse Gas Emissions Inventory: 2015 and 2018

2015 & 2018 GHG Emissions Inventories

Introduction

The 2015 and 2018 Community-scale GHG emissions inventories for unincorporated Los Angeles County were developed using the Global Protocol for Community-scale GHG Emission Inventories (GPC).¹ This protocol is used for calculating and reporting emissions from community activities and sources from seven gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), hexafluoride (SF₆), and nitrous trifluoride (NF₃). GHG emissions from these activities are organized into five sectors: transportation, stationary energy, waste (including wastewater), industrial processes and product use (IPPU) and agriculture, forestry and other land use (AFOLU). The protocol further offers two related frameworks—the Scopes Framework and the City-induced Framework—for reporting emissions from each sector:

Scopes Framework: This framework captures GHG emissions produced within a geographic boundary by categorizing emissions as scope 1, 2, and 3 emissions in each Sector:

- **Scope 1:** Emissions produced from activities and sources within unincorporated Los Angeles County boundaries.
- **Scope 2:** Emissions generated from the use of grid-supplied electricity, heat, steam and/or cooling within unincorporated Los Angeles County boundaries; and
- **Scope 3:** Emissions occurring outside unincorporated Los Angeles County boundaries due to activities taking place within unincorporated Los Angeles County boundaries.

¹ World Resources Institute, C40 Cities Climate Leadership Group, and ICLEI - Local Governments for Sustainability. *Global Protocol for Community-scale GHG Emission Inventories*, Version 1.1. December, 2014. Available at: <https://ghgprotocol.org/greenhouse-gas-protocol-accounting-reporting-standard-cities>. Accessed January 2021.

City-induced Framework: This framework measures GHG emissions attributable to activities and sources within a geographic boundary and covers selected scope 1, 2, and 3 emissions from each sector. This framework offers two reporting levels:

- **BASIC:** Includes emissions from transportation, stationary energy, and waste sectors.
- **BASIC+:** Includes all BASIC requirements as well as emissions from transmission and distribution grid losses, transboundary transportation, in-boundary generated waste emission sources, IPPU, and AFOLU.

The 2015 and 2018 GHG emissions inventories for unincorporated Los Angeles County use the City-induced BASIC+ Framework. This includes Scope 1, 2, and 3 emissions sources. In other words, the GHG inventories comprise emissions from activities occurring within unincorporated Los Angeles County areas, including emissions that occur elsewhere because of those activities. A good example is solid waste, which is generated locally but disposed of at a landfill outside the city, where it decomposes and generates GHGs. Solid waste is a Scope 3 emissions source.

The GHG inventories use global warming potential (GWP) values from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5),² unless otherwise specified. The inventory is prepared using sector-specific generation and resource consumption data for relevant sub-sectors included in the BASIC+ protocol. The accounting methods, data sources and emission factors used for accounting 2015 and 2018 emissions are detailed in the subsequent sections.

The general methods used for the 2015 and 2018 inventories are the same and the descriptions herein apply to both of the inventory years.

It should also be noted that the Los Angeles County Sanitation Districts has prepared a separate GHG inventory using site-specific data rather than population-based estimates, which were used for certain sources in the Draft 2045 CAP's 2015 and 2018 inventories.^{3,4} Los Angeles County and the Sanitation Districts will work cooperatively to achieve carbon neutrality.

² IPCC, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. 2014. Available at: <https://archive.ipcc.ch/report/ar5/syr/>. Accessed January 2021.

³ Los Angeles County Sanitation Districts, 2021 Greenhouse Gas Inventory Report. 2022.

⁴ Environmental Science Associates, Positive Verification Opinion for Greenhouse Gas Emissions and Reductions for Emissions Year 2021. 2022.

Stationary Energy

This sector includes emissions from energy use (natural gas and electricity) in residential, commercial/ institutional/agricultural, and manufacturing/industrial buildings, energy generation facilities owned by the County, off-road equipment, and fugitive emissions from oil and natural gas systems. **Table A-1** presents scopes, activity data, and emissions for the stationary energy sector. **Figure A-1** compares 2015 and 2018 GHG emissions from energy use by sub-sector.

Table A-1: Stationary Energy Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | ACTIVITY | 2015 INVENTORY | | 2018 INVENTORY | |
|---|-------|--|---------------------------------|----------|--|------------------|
| | | | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY |
| Stationary Energy | | | | | | |
| Residential Buildings | All | Natural Gas: 99,802,009 therms Electricity: 2,032,945,391 kWh | 1,030,285 | | Natural Gas: 100,918,233 therms Electricity: 1,855,862,580 kWh | 962,743 |
| Commercial, Institutional, and Agricultural Buildings | All | Natural Gas: 18,162,374 therms Electricity: 1,181,331,358 kWh | 386,753 | | Natural Gas: 35,862,112 therms Electricity: 1,342,822,146 kWh | 349,373 |
| Manufacturing and Construction Buildings | All | Natural Gas: 17,177,369 therms Electricity: 686,002,430 kWh | 309,449 | | Natural Gas: 13,143,126 therms Electricity: 1,025,769,024 kWh | 244,417 |
| Energy Industries | 1 & 3 | 2 CHP and District Energy facilities 1 Waste to Energy facility ^a 3 Biomass and Auxiliary Power facilities ^a | 121,252 | | 2 CHP and District Energy facilities 1 Waste to Energy facility ^a 3 Biomass and Auxiliary Power facilities ^a | 98,554 |
| Fugitive Emissions from Oil and Natural Gas Systems | 1 | 1 Natural Gas Distribution and Transportation facility 1 Crude Petroleum & Natural Gas Extraction site | 58,222 | | 1 Natural Gas Distribution and Transportation facility 1 Crude Petroleum & Natural Gas Extraction site | 41,066 |
| Agriculture, Forestry and Other Fishing Activities | 1 | Off-road agricultural vehicles using diesel or gasoline | 2,675 | | Off-road agricultural vehicles using diesel or gasoline | 2,658 |
| TOTAL | | | 1,908,637 | | | 1,698,809 |

NOTES:

^a. Biogenic emissions from these facilities are not included in the inventory; only non-biogenic CH₄ and N₂O emissions are included, consistent with the GPC Protocol.

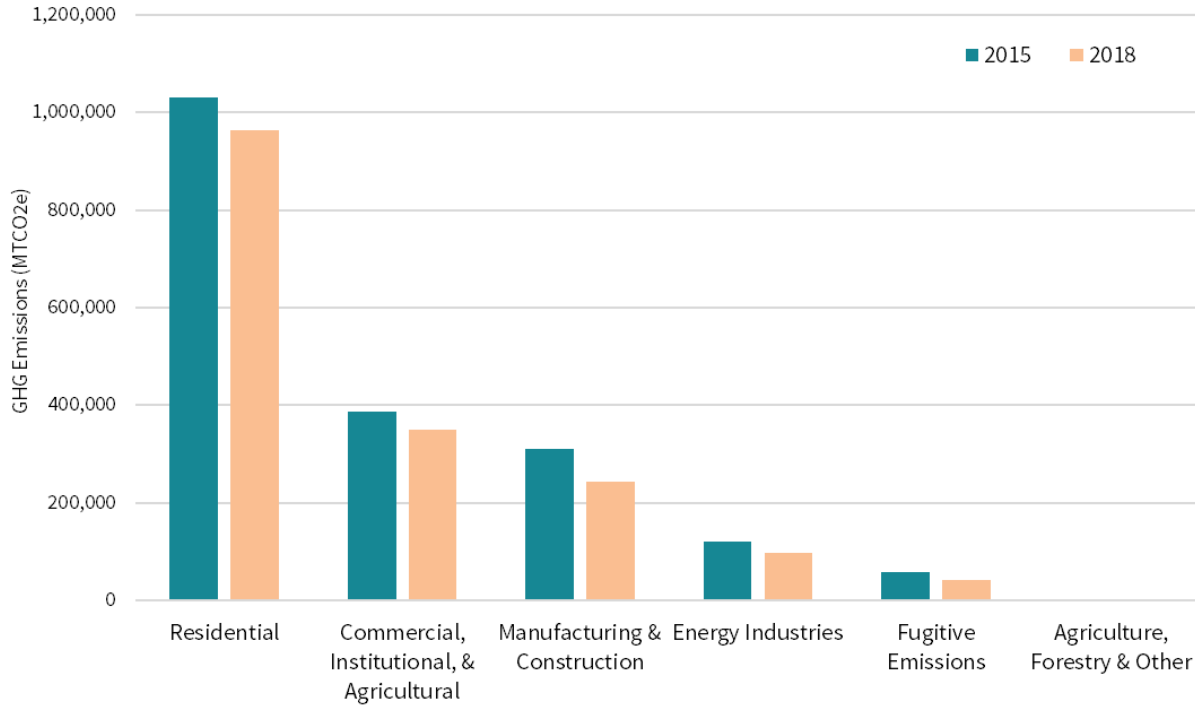


Figure A-1: 2015 & 2018 Energy Emissions by Sub-sector

RESIDENTIAL BUILDINGS

This category includes direct emissions from the consumption of natural gas and indirect emissions from grid-supplied electricity by residential buildings in unincorporated areas. Direct GHG emissions from natural gas consumption in residential buildings are calculated using SoCalGas natural gas consumption data and emission factors from the Climate Registry.⁵ Indirect GHG emissions from electricity consumption in residential buildings are calculated using data from SCE including electricity consumption, emission factors, and power mix. In 2018, SCE’s power mix was 36 percent eligible renewable, 10 percent hydropower and nuclear (carbon-free), 17 percent natural gas, and 37 percent unspecified fossil-fuel sources. SCE’s emission rate for 2018 electricity was 513 pounds per MWh.⁶ Emissions associated with transmission and distribution losses are accounted using a loss factor of 4.8 percent for California from EPA eGRID.⁷

Data Sources:

- SCE Consumption Data
Provided by SoCal Edison via County DRP (2021)
- SoCalGas Consumption Data
Provided by SoCalGas via County DRP (2021)
- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>

⁵ The Climate Registry, Default Emission Factors. May 1, 2018. Available at: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf>. Accessed January 2021.
⁶ California Energy Commission (CEC), 2018 Power Content Label. July 2019. Available at: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Southern_California_Edison.pdf. Accessed January 2021.
⁷ EPA, eGRID. 2018. Available at: <https://www.epa.gov/egrid>. Accessed January 2021.

- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf> (the 2018 document was the latest available at the time the inventories were prepared)
- EPA eGRID
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-eGRID>

COMMERCIAL AND INSTITUTIONAL BUILDINGS

This category includes direct emissions from the consumption of natural gas and indirect emissions from grid-supplied electricity by non-residential buildings including commercial, municipal, institutional (such as schools, hospitals, and other public facilities) and agricultural buildings. Direct GHG emissions from natural gas consumption in non-residential buildings are calculated using SoCalGas natural gas consumption data and emission factors from The Climate Registry.⁸

In June 2018, non-residential customers in unincorporated Los Angeles County were automatically enrolled in the Clean Power Alliance’s (CPA) “Clean” rate option. While participation data for 2018 were unavailable when the 2018 inventory was developed, a July 2021 member status report indicated a 98 percent participation rate for all non-residential customers in unincorporated Los Angeles County in 2021.⁹ For purposes of the 2018 GHG inventory, it is conservatively assumed that half the annual electricity consumption is attributed to SCE and half to CPA because full CPA enrollment for non-residential customers was not completely in effect until 2019. Under the Clean rate option in 2018, non-residential customers received 61 percent of their electricity from eligible renewable sources via the CPA, 26 percent from carbon-free sources like hydropower, and 13 percent from unspecified fossil-fuel sources like natural gas and coal. GHG emissions from CPA-provided electricity are calculated using CPA data including electricity consumption, emission factors, and power mix.¹⁰ CPA’s emission rates for 2018 were 10.6 pounds per MWh for the “Lean” rate and 9.8 pounds per MWh for the Clean rate.¹¹ GHG emissions from SCE-provided electricity are calculated using SCE data including electricity consumption, emission factors, and power mix. SCE’s emission rate for 2018 electricity was 513 pounds per MWh.¹² Emissions associated with transmission and distribution losses are accounted using a loss factor of 4.8 percent for California from the U.S. EPA’s eGRID2018 Summary Table (WECC California subregion).¹³

Data Sources:

- SCE Consumption Data
Provided by SoCal Edison via County DRP (2021)
- SoCalGas Consumption Data
Provided by SoCalGas via County DRP (2021)

⁸ The Climate Registry, Default Emission Factors. May 1, 2018. Available at: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf>. Accessed January 2021.

⁹ CPA, Member Status Report: Los Angeles County. July 28, 2021.

¹⁰ CEC, 2018 CPA Power Content Label. July 2019. Available at: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Clean_Power_Alliance.pdf. Accessed January 2021.

¹¹ The Climate Registry, Utility-Specific Emission Factors. 2020. Available at: <https://www.theclimateregistry.org/our-members/cris-public-reports/>. Accessed January 2021.

¹² Edison International, 2020 Sustainability Report. 2021. Available at: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf>. Accessed January 2021.

¹³ EPA, eGRID. 2018. Available at: <https://www.epa.gov/eGRID>. Accessed January 2021.

- CPA Member Status Report (July 28, 2021)
Provided by CPA via County CSO (July 28, 2021)
- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission Factor
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf>
- Climate Registry Information System (CRIS)
Link: [https://cris4.org/\(S\(zr3twbbnour5a5jfb1iykcx\)\)/frmLILogin.aspx](https://cris4.org/(S(zr3twbbnour5a5jfb1iykcx))/frmLILogin.aspx)
- EPA eGRID
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-eGRID>

MANUFACTURING AND INDUSTRIAL BUILDINGS

This category includes direct emissions from the consumption of natural gas and indirect emissions from grid-supplied electricity consumption in manufacturing and industrial buildings. This category also includes direct emissions from fossil fuel combustion for electricity and heat generation by stationary equipment (such as boilers, furnaces, burners, turbines, heaters, incinerators, engines and flares) and off-road equipment (such as vehicle and mobile machinery) that are used inside building property premises.

GHG emissions from natural gas and electricity consumption are estimated using the same assumptions and methods stated under Commercial and Institutional Buildings above.

Emissions from fuel combustion of other energy sources in manufacturing facilities are documented using the California Air Resource Board's (CARB) Pollution Mapping Tool.¹⁴ This tool provides CH₄, CO₂ and N₂O from on-site combustion and industrial processes for each facility location. CARB's OFFROAD2017 ORION¹⁵ tool is used to estimate emissions from fuel consumption by industrial and construction equipment used inside building premises. This tool provides daily CO₂ emissions and annual fuel consumption of diesel, gasoline and natural gas by manufacturing and construction sectors for Los Angeles County as a whole, including cities. (This area is referred to herein as "Countywide.") Emissions from unincorporated Los Angeles County are estimated by scaling countywide GHG emissions based on the number of jobs in manufacturing and construction sectors in unincorporated areas in 2017.

Note: This category only reports fossil fuel combustion-related emissions from CARB's Pollution Mapping Tool. These emissions do not include fugitive process emissions from manufacturing facilities since they are reported under the IPPU category. Emissions reported in CARB's Pollution Mapping tool are largely informed by emissions reported under the CARB's Mandatory GHG Reporting Regulations (MRR).¹⁶ The MRR only requires facilities emitting more than 10,000 metric tons carbon dioxide equivalent (MTCO_{2e}) to report their emissions. Emissions from facilities emitting under 10,000 MTCO_{2e} are not available and have therefore not been accounted in this inventory.

¹⁴ CARB, Pollution Mapping Tool. 2018. Available: https://ww3.arb.ca.gov/ei/tools/pollution_map/. Accessed January 2021.

¹⁵ CARB, OFFROAD ORION. 2018. Available at: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

¹⁶ CARB, Mandatory GHG Reporting Regulations. April 1, 2019. Available at: <https://ww2.arb.ca.gov/mrr-regulation>. Accessed January 2021.

Data Sources:

- SCE Consumption Data
Provided by SoCal Edison via County DRP (2021)
- SoCal Gas Data
Provided by SoCal Gas via County DRP (2021)
- CPA Membership Report
Provided by CPA via County CSO (July 28, 2021)
- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- EPA eGRID
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid>
- CARB OFFROAD2017 ORION
Link: <https://www.arb.ca.gov/orion/>
- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- Jobs in Manufacturing and Construction
Link: <https://scag.ca.gov/sites/main/files/file-attachments/losangelescountyip.pdf?1605653130>

ENERGY INDUSTRIES

The Energy Industries category includes emissions from primary fuel production (such as coal mining and oil and gas extraction), fuel processing and conversion (such as coal to coke in coke ovens) and on-site fuel combustion for auxiliary energy production (such as electricity generation and district heating).

Emissions from fuel and energy production in combined heat and power (CHP) plants, biomass power stations, and waste to energy facilities in unincorporated areas are documented using CARB's Pollution Mapping Tool.¹⁷ For CHP and district energy source, the inventory includes direct natural gas combustion emissions from the Pitchess Cogeneration Station in Saugus and the Olive View Medical Center Cogeneration Station in Sylmar. Pitchess Cogeneration Station and the Olive View Medical Center Cogeneration Station were included because these facilities are both within unincorporated Los Angeles County and owned and operated by the County. Emissions data for all three facilities were obtained from CARB's 2021 MRR database.

Waste-to-Energy facilities include Bradley Landfill in Sun Valley and the Calabasas Landfill in Agoura. These facilities convert landfill methane to energy. Only non-biogenic CH₄ and N₂O emissions from these facilities were included in the inventory because the CO₂ emissions from landfill gas combustion are considered biogenic (not anthropogenic) emissions sources by the GPC and should therefore be excluded.¹⁸ Biomass and auxiliary power facilities include Ameresco Chiquita Energy LLC in Castaic, Calabasas Landfill in Agoura, MM Lopez Energy LLC in Lake View Terrace, and Sunshine Gas Producers LLC in Sylmar. Similar to the waste to energy facilities above, only non-biogenic CH₄ and N₂O emissions from these facilities were included in the inventory.

¹⁷ Emissions reported under CARB's Pollution Mapping Tool are largely informed by emissions reported under CARB's Mandatory GHG Reporting Regulations (MRR). The MRR only requires facilities emitting more than 10,000 MTCO₂e to report their emissions. Emissions from facilities emitting under 10,000 MTCO₂e are not available and have therefore not been accounted in this inventory.

¹⁸ According to the GPC, "Biogenic emissions are those that result from the combustion of biomass materials that store and sequester CO₂, including materials used to make biofuels (e.g. trees, crops, vegetable oils, or animal fats)."

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>

AGRICULTURE, FORESTRY AND OTHER FISHING ACTIVITIES

Emissions from direct fuel combustion associated with agricultural activities typically result from the operation of farm vehicles and machinery (stationary and mobile) and generators to power lights, pumps, heaters, coolers and other equipment. CARB's OFFROAD2017 ORION¹⁹ tool was used to estimate Countywide emissions from direct fuel consumption by agricultural equipment (including plant and animal cultivation, afforestation and reforestation activities, and fishery activities). GHG emissions from the unincorporated Los Angeles County areas were estimated by scaling countywide GHG emissions using the cropland acres in unincorporated areas in 2016.

Note: For the agricultural sector, this category only reports emissions associated with off-road vehicles and equipment. Emissions from agricultural buildings (natural gas and electricity consumption) are reported under the commercial and institutional buildings category.

Data Sources:

- CARB OFFROAD ORION
Link: <https://www.arb.ca.gov/orion/>
- NASS CropScape
Link: <https://nassgeodata.gmu.edu/CropScape/>

FUGITIVE EMISSIONS FROM OIL AND NATURAL GAS SYSTEMS

Fugitive emissions include all intentional and unintentional emissions from the extraction, processing, storage and transport of oil and natural gas to the point of final use. The primary sources of fugitive emissions from oil and natural gas systems include equipment leaks, evaporation and flashing losses, venting, flaring, incineration, and accidental releases. GHG emissions from oil and natural gas systems in unincorporated areas are documented using CARB's Pollution mapping tool.²⁰

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/

¹⁹ CARB, OFFROAD ORION. 2018. Available at: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

²⁰ CARB, Pollution Mapping Tool. 2018. Available: https://ww3.arb.ca.gov/ei/tools/pollution_map/. Accessed January 2021.

Transportation

The transportation sector includes emissions from fuel (gasoline, diesel, and natural gas) and electricity consumption in on-road passenger vehicles (cars, light-, medium-, and heavy-duty trucks), buses, and rail systems. Note that while Metro and Metrolink have GHG inventories for the transportation services provided by the respective agencies, they do not estimate emissions by local jurisdiction. Therefore, bus and railway emissions are independently estimated for unincorporated Los Angeles County. **Table A-2** presents scopes, activity data, and emissions for the transportation sector. **Figure A-2** shows the contribution of each subsector to the Transportation sector for both the 2015 and 2018 inventories.

Table A-2: Transportation Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|-----------------------|-------|---|---------------------------------|---|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| Transportation | | | | | |
| Passenger Vehicles | 1 & 3 | 18,982,668 miles/day | 2,797,360 | 19,074,692 miles/day | 2,665,824 |
| Buses | 1 & 3 | 1,392,461,970 miles/year | 31,360 | 1,143,144,015 miles/year | 29,371 |
| Railway | 1 & 3 | Metro: 634,484,952 miles/year Metrolink: 24,798 riders/day | 9,413 | Metro: 689,995,896 miles/year Metrolink: 25,690 riders/day | 9,490 |
| TOTAL | | | 2,838,133 | | 2,704,685 |

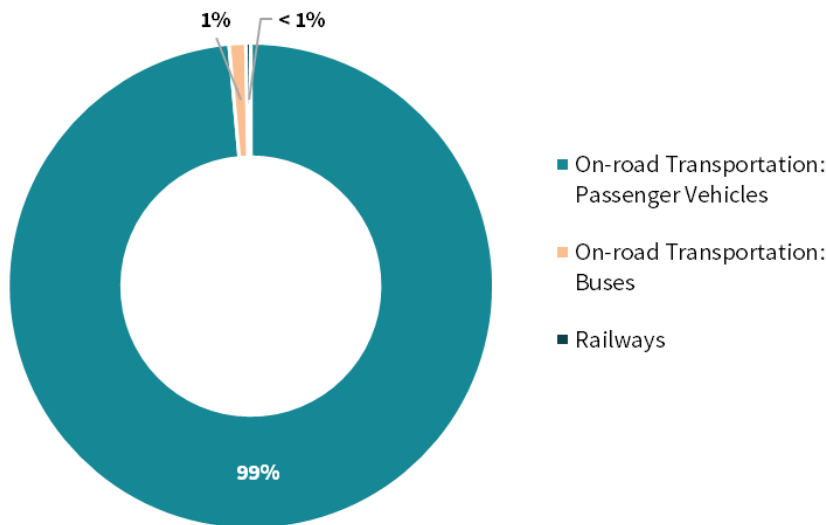


Figure A-2: 2015 & 2018 Transportation Emissions by Sub-sector

ON ROAD TRANSPORTATION: PASSENGER VEHICLES AND TRUCKS

Emissions from passenger vehicles and trucks are estimated based on daily vehicle trips and vehicle miles traveled (VMT) by each vehicle type. VMT for unincorporated Los Angeles County is estimated using a trip-based travel forecasting model developed by Southern California Association of Governments (SCAG). SCAG's 2016 Regional Travel Demand Model, the version for which a complete dataset was available at the time of modeling, was used by Fehr and Peers (F&P) to analyze the transportation network and socioeconomic data such as population, household, and employment, to forecast daily vehicle trips and VMT for each traffic analysis zone (TAZ) within unincorporated Los Angeles County.²¹

The 2016 SCAG model has a base year of 2012 and horizon year of 2040. VMT for the inventory years, including 2015 and 2016, was linearly interpolated from the 2012 and 2040 model values. Daily VMT are estimated using the origin-destination analysis approach (full accounting method). The Full Accounting Method accounts for VMT depending on where the trip is starting and ending. This method tracks (and "fully accounts" for) all the vehicle trips being generated by a geographic area (i.e., a city) across the entire regional network, and allows for the isolation of different types of VMT as follows.

- **Internal-internal (II) VMT:** Includes all trips that begin and end entirely within the geographic area of study.
- **One-half of internal-external (IX) VMT:** Includes one-half of trips with an origin within the geographic area of study and a destination outside of this area. This assumes that the geographic area under study shares half the responsibility for trips traveling to other areas.
- **One-half of external-internal (XI) VMT:** Includes one-half of trips with an origin outside of the geographic area of study and a destination within this area. Similar to the IX trips, the geographic area of study shares the responsibility of trips traveling from other areas.
- **External-external (XX) VMT:** Trips through the geographic area of study are not included. This approach is consistent with the concept used for the IX and XI trips. Therefore, the XX VMT would be assigned to other areas that are generating the trips.

The Full Accounting Method was utilized to develop the VMT estimates for unincorporated Los Angeles County because it more fully accounts for the length of regional travel generated in unincorporated Los Angeles County, not just the travel occurring on unincorporated Los Angeles County's in-boundary roadways. As noted above, the inventory includes emissions from trips that begin and/or end within unincorporated Los Angeles County. It does not include through trips that neither begin nor end within the unincorporated areas. Daily VMT is then multiplied by 347 to

²¹ VMT estimates for large urban areas are commonly developed using regional travel demand models. These models are developed and periodically updated, calibrated, and validated for use in long range infrastructure planning, environmental impact assessments, and air quality conformity analyses by local and regional agencies. Trip-based travel forecasting models generate (output) daily vehicle trips for each TAZ across various trip purposes based on inputs such as the transportation network and socioeconomic data such as population, household, and employment. SCAG staff maintain a regional travel demand model that uses a four-step model process to arrive at a set of forecast vehicle trips based on the data described above.

calculate annual VMT.²² VMT was estimated for passenger vehicles (light-duty cars and trucks) and trucks (medium- and heavy-duty trucks).

Emissions were calculated using CARB's Emission FACTors 2021 model (EMFAC2021).²³ EMFAC2021 generates vehicle emission rates by area, year, vehicle type, fuel type, speed, and other parameters. EMFAC2021 was run for Los Angeles County for 2015 and 2018 in "emission rate" mode to generate vehicle travel emission factors for all vehicle types and fuel types for aggregated (average) speeds. The EMFAC vehicle type categories were aligned with the two categories of VMT provided by Fehr & Peers (passenger and truck).²⁴ The EMFAC emission factors by vehicle type and fuel assigned to passenger VMT and truck VMT were then weighted using Countywide VMT and trip generation profiles for each vehicle type modeled in EMFAC2011.²⁵ GHG emissions were then calculated by multiplying the weighted emission factors for passenger vehicles and trucks by the origin-destination VMT for passenger vehicles and trucks supplied by Fehr & Peers.

Data Sources:

- 2016 SCAG Regional Travel Demand Model
Provided by SCAG
 - Fehr & Peers Modeling Analysis (July 29, 2019; December 2021; January 2022; February 2023)
 - EMFAC2021 Model, v1.0.1
- Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

ON ROAD TRANSPORTATION: BUSES

GHG emissions from fuel and energy consumption by bus transit systems and paratransit agencies are accounted from Federal Transit Administration's (FTA) National Transit database at the Countywide level (not for unincorporated Los Angeles County areas separately).²⁶ The agency included in the GHG inventory includes the Los Angeles County Metropolitan Transportation Authority (Metro). Electricity consumption was not available from the National Transit database. To account for electricity consumption and associated indirect GHG emissions, the total gasoline and diesel fuel use from the National Transit database was reapportioned based on the percentage of VMT by fuel type (diesel, gasoline, natural gas, electricity) from EMFAC2021 for the aggregated OBUS, SBUS, and UBUS categories in EMFAC. The CPA Clean emission factor is applied to all electricity consumption by electric buses serving unincorporated Los Angeles County areas. Emission factors for gasoline, diesel, and compressed natural (CNG) gas-powered buses are taken from EMFAC2021 to calculate CO₂ and N₂O emissions. Total estimated Countywide GHG emissions were then scaled by Metro ridership forecasts for unincorporated county areas to estimate GHG emissions for the unincorporated Los Angeles County areas.²⁷

²² The annualization factor of 347 was provided by Fehr & Peers to estimate annual vehicle activity based on daily vehicle activity generated by SCAG's 2016 Regional Travel Demand Model.

²³ CARB, EMFAC2021 Model. Version v.1.0.1. 2021. Available at: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

²⁴ The "passenger vehicle" category corresponds to EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD. The "trucks" category corresponds to EMFAC vehicle categories LHDT1, LHDT2, MHDT, HHDT, and MH.

²⁵ For example, if the LDA vehicle type represents 70% of VMT at an emission rate of 300 grams CO₂ per mile and the LDT1 vehicle type represents 30% of VMT at an emission rate of 350 grams CO₂ per mile, the VMT-weighted emission rate for LDA and LDT1 vehicles combined is calculated as follows: 70% * 300 + 30% * 350 = 315 grams CO₂ per mile.

²⁶ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

²⁷ Metro, Interactive Estimated Ridership Stats. 2021. Available at: <https://isotp.metro.net/MetroRidership/Index.aspx>. Accessed January 2021.

Data Sources:

- FTA National Transit Database
Link: <https://www.transit.dot.gov/ntd/ntd-data>
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- Metro Bus Ridership
Link: <https://isotp.metro.net/MetroRidership/Index.aspx>

RAILWAY

Diesel fuel and electricity consumed by commuter rail systems are obtained from FTA's NTD.²⁸ The database reports diesel fuel consumption by Southern California Regional Rail Authority (Metrolink) and electricity consumption by Metro Rail. GHG emission factors for diesel locomotives were obtained from the EPA national GHG inventory and emission factors for electric propulsion were obtained from the EPA's Emissions & Generation Resource Integrated Database (eGRID).²⁹ These emission factors were multiplied by the diesel fuel and electricity consumption values obtained from NTD to generate GHG emissions for Los Angeles County as a whole. Total Countywide GHG emissions were then scaled based on Metro and Metrolink ridership forecasts for unincorporated county areas to estimate GHG emissions for the unincorporated Los Angeles County areas.

Data Sources:

- FTA National Transit Database
Link: <https://www.transit.dot.gov/ntd/ntd-data>
- EPA National GHG Inventory Emission Factors
Link: https://www.epa.gov/sites/production/files/2015-12/documents/emission-factors_nov_2015.pdf
- EPA eGRID Database
Link: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-eGRID>
- Metro Ridership
Link: http://media.metro.net/projects_studies/union_station/images/LAUSMP_Presentation_2013_0315.pdf

²⁸ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

²⁹ EPA, eGRID. 2018. Available at: <https://www.epa.gov/eGRID>. Accessed January 2021.

Waste and Wastewater

Emissions generated at landfills, biological treatment (composting and anaerobic digestion) and incineration facilities, and wastewater treatment plants are reported under the waste sector. These subsectors are discussed in more detail below. **Table A-3** presents scopes, activity data, and emissions for the water and wastewater sector. **Figure A-3** compares 2015 and 2018 GHG emissions from waste and wastewater by sub-sector.

Table A-3: Waste and Wastewater Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|-------------------------------------|-------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| Waste and Wastewater | | | | | |
| Solid Waste Disposal | 1 & 3 | Disposal Tonnage: 721,493 tons | 404,604 | Disposal Tonnage: 935,512 tons | 407,578 |
| Biological Treatment of Solid Waste | 1 & 3 | Composting Tonnage: 51,111 tons | 10,214 | Composting Tonnage: 27,182 tons | 5,309 |
| Waste Incineration* | 1 & 3 | Incineration Tonnage: 3,303 tons | 1,184 | Incineration Tonnage: 1,876 tons | 547 |
| Wastewater Treatment | All | Population: 1,058,871 | 55,179 | Population: 1,082,365 | 56,495 |
| TOTAL | | | 469,997 | | 469,382 |

NOTE: Totals exclude Waste Incineration which is accounted for under Stationary Energy

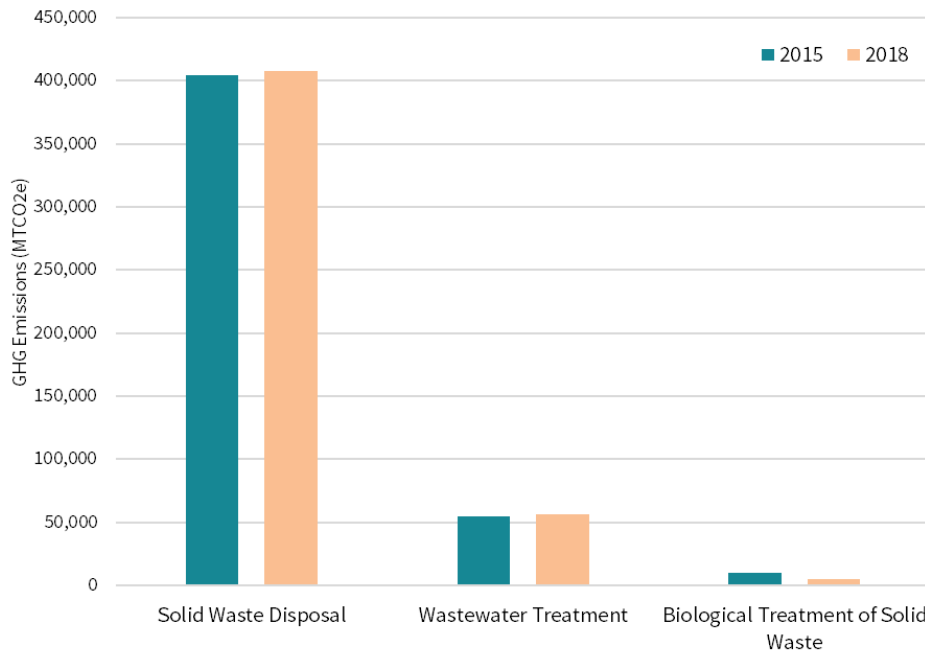


Figure A-3: 2015 & 2018 Waste and Wastewater Emissions by Sub-sector

SOLID WASTE DISPOSAL

Landfill-related emissions are estimated using CARB's first order of decay (FOD) model,³⁰ based on waste disposal tonnage and composition data from CalRecycle's Solid Waste Integrated System (SWIS)³¹ and County Public Works Solid Waste Information Management System (SWIMS) reports.³² Using these reports, unincorporated Los Angeles County disposal tonnage data were obtained for 62 open and closed landfills where unincorporated Los Angeles County residents and businesses disposed their municipal solid waste prior to 2018.

Most of the 62 in- and out-of-county landfills used by unincorporated Los Angeles County residents and businesses have landfill gas collection (LFG) systems with combustion control. These systems collect LFG for flaring, energy production, or for producing liquefied natural gas (LNG), CNG, and producer gas. GHG emissions from landfill gas collection are estimated based on LFG collection rate, LFG flow to energy, and methane content from CalRecycle's 2010 Landfill Gas Master.³³ To determine Los Angeles County's share of methane removal at these landfills (since many other jurisdictions contribute waste to these same landfills), total emissions from these landfills were apportioned based on waste disposed in the landfills by Los Angeles County versus California. California's disposal tonnage data are obtained using CalRecycle's SWIS reports for statewide disposal at the same facilities, where unincorporated Los Angeles County residents and businesses deposited municipal solid waste between 1998 and 2018. The same was done to estimate the unincorporated Los Angeles County's share of emissions at these landfills.

GHG emissions from landfills and landfill gas flaring for the unincorporated Los Angeles County are scaled based on waste volume directed to in- and out-of-county landfills between 1998 and 2018. Emissions associated with methane flaring and recovery from landfills are reported under the waste sector. However, if the methane is recovered (via biogas or digester gas) and used for electricity generation, then the emissions are reported under the stationary energy sector as waste-to-energy facilities or biomass and auxiliary power facilities.

Data Sources:

- CARB FOD Model
Link: <https://ww2.arb.ca.gov/resources/documents/landfill-methane-emissions-tool>
- CalRecycle SWIS Reports
Link: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>
- LADPW SWIMS Reports
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>
- CalRecycle Landfill Gas Master
Link: <https://www2.calrecycle.ca.gov/PublicNotices/Documents/1642>

³⁰ CARB, Landfill Gas Tool. 2021. Available at: <https://ww2.arb.ca.gov/resources/documents/carbs-landfill-gas-tool>. Accessed January 2021.

³¹ CalRecycle, SWIS Facility/Site Search. 2021. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed January 2021.

³² LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

³³ CalRecycle, Landfill Gas Master. Available at: <https://www2.calrecycle.ca.gov/PublicNotices/Documents/1642>. Accessed January 2021.

BIOLOGICAL TREATMENT OF SOLID WASTE

Biological treatment of solid waste refers to the composting and anaerobic digestion of organic waste (such as food waste, garden and park waste, sludge, and other organic waste sources).

Composting

In 2018, the County diverted waste to eight in-county and over 50 out-of-county composting facilities. Waste volume diverted by unincorporated Los Angeles County areas for composting was obtained from County Public Works SWIMS reports for transfer stations and non-disposal facilities.³⁴ Waste composted at in-county facilities is assumed to be equivalent to annual waste processing capacity of in-county facilities. These data are obtained from 2019 Organics Waste Management Reports by County Department of Public Works. Waste composted at out-of-county facilities is considered to be the difference between total waste diverted and capacity of in-county facilities. GHG emissions are calculated using wet and dry waste parameters based on waste composition disposed at in and out-of-county recycling or diversion facilities. These data are obtained from Public Works Organics Waste Management Reports.³⁵ GHG emissions from composting for unincorporated Los Angeles County are scaled based on waste volume directed to in- and out-of-county facilities in 2018.

Anaerobic Digestion

The Joint Water Pollution Control Plant (JWPCP) serves 78 Cities as well as many unincorporated communities, also manages sewage sludge using Anaerobic Digester Units. Annual waste volume processed at these facilities is obtained from 2019 Organics Waste Management Reports by Public Works.³⁶ GHG emissions produced by this facility are estimated based on content of volatile solids in food waste and sewage sludge processed in respective facilities.

GHG emissions from anaerobic digestion facilities for unincorporated Los Angeles County are scaled based on population of unincorporated areas in 2018 compared to the total Countywide population. Since the JWPCP facility uses biogas or digester gas for energy production, emissions from anaerobic digestion are included under the waste sector for informational purposes, but they are reported under stationary energy (energy industries).

Data Sources:

- LADPW SWIMS Reports
Link: <https://dpw.lacounty.gov/epd/swims/>
- Public Works 2019 Organics Waste Management Reports
Link: <https://dpw.lacounty.gov/epd/swims/News/swims-more-links.aspx?id=4>

WASTE INCINERATION

Incineration is a controlled industrial process which is often paired with energy recovery. In 2018, the County diverted waste to three waste incineration facilities. Two of the facilities – the Commerce Refuse-to-Energy Facility (discontinued in June 2018) and the Southeast Resource Recovery Facility – are located in the county. Additionally, waste was diverted to Covanta

³⁴ LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

³⁵ Ibid

³⁶ Ibid

Stanislaus Inc., which is an out-of-county facility. GHG emissions from these facilities are obtained from CARB's MRR GHG database.³⁷

To estimate unincorporated Los Angeles County's emissions, total countywide GHG emissions from waste incineration facilities are scaled based on waste diverted by unincorporated communities to these facilities in 2018. CalRecycle's 2018 SWIS reports are used to determine the waste volume diverted to these facilities.³⁸ Since these facilities are used for energy production, emissions are reported under stationary energy (energy industries).

Data Sources:

- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>
- CalRecycle SWIS Reports
Link: <https://www2.calrecycle.ca.gov/swfacilities/Directory/>

WASTEWATER TREATMENT

Emissions from wastewater treatment are estimated based on population served by sewer and septic systems in unincorporated areas. GHG emissions from wastewater treatment are estimated based on 2018 population data from the SCAG Growth and Forecast report.³⁹ Parameters and constants such as total organic carbon and protein consumption in wastewater are obtained from California GHG inventory documentation⁴⁰ and IPCC default parameters.⁴¹

Data Sources:

- SCAG Growth and Forecast Report
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- California GHG Inventory
Link: <https://ww2.arb.ca.gov/ghg-inventory-data>
- IPCC Default Parameters
Link: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_2_Ch2_Waste_Data.pdf

Industrial Processes and Product Use

Emissions from the industrial processes and product use (IPPU) sector include HFC and PFC emissions from products such as refrigerants, foams, aerosols and fossil fuel-based lubricants and solvents are estimated by scaling statewide emissions from the product use category. Statewide GHG emissions from product use in residential, commercial, and transportation sectors are scaled based on unincorporated Los Angeles County's population.⁴² State-level HFC and PFC emissions from product use in industries including electronics, food processing, metal and

³⁷ CARB, Mandatory GHG Reporting Regulations. April 1, 2019. Available at: <https://ww2.arb.ca.gov/mrr-regulation>. Accessed January 2021

³⁸ CalRecycle, SWIS Facility/Site Search. 2021. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed January 2021.

³⁹ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁴⁰ CARB, GHG Inventory Data Archive. 2021. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁴¹ IPCC, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Waste Generation, Composition and Management Data. 2006. Available at: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_2_Ch2_Waste_Data.pdf. Accessed March 2022.

⁴² CARB, GHG Inventory Data Archive. 2021. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

machinery manufacturing, and others, are scaled based on state and unincorporated Los Angeles County industry output from respective industries and unincorporated Los Angeles County’s population.⁴³ Impact Analysis For Planning (IMPLAN) data were used to tabulate the economic outputs by industry for Los Angeles County and the State of California, to estimate the emissions from industry sectors including the lime, cement, and nitrogenous fertilizer manufacturing sectors. GHG emissions are further adjusted based on HFC prohibitions for both Senate Bill 1013 and the CARB HFC Regulation by assuming that the use of prohibited HFCs are phase out over 30 years from prohibition date for all HFC policies before 2018.⁴⁴ **Table A-4** presents scopes, activity data, and emissions for the IPPU sector.

Table A-4: IPPU Scope, Activity, and GHG Emissions

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|--------------|-------|---|---------------------------------|---|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| IPPU | | | | | |
| Product Use | 1 | Aerosols & fire retardants, residential & transportation refrigeration and air conditioning, foam use, industrial refrigeration and air conditioning, and non-aerosol solvents Population: 1,114,808 | 253,529 | Aerosols & fire retardants, residential & transportation refrigeration and air conditioning, foam use, industrial refrigeration and air conditioning, and non-aerosol solvents Population: 1,082,365 | 239,505 |
| TOTAL | | | 253,529 | | 239,505 |

Data Sources:

- California GHG Inventory
Link: <https://www.arb.ca.gov/cc/inventory/pubs/pubs.htm>
- HFC Prohibitions
Link: <https://ww2.arb.ca.gov/resources/fact-sheets/hydrofluorocarbon-hfc-prohibitions-california>
- SCAG Growth and Forecast Report
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- IMPLAN Data (proprietary)⁴⁵

⁴³ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁴⁴ CARB, HFC Prohibitions in California. November 29, 2018. Available at: <https://ww2.arb.ca.gov/resources/fact-sheets/hydrofluorocarbon-hfc-prohibitions-california>. Accessed January 2021.

⁴⁵ Impact Analysis For Planning (IMPLAN) data contain 546 sectors representing all private industries in the United States (anything from grain farming to surgical appliance manufacturing) as defined by the North American Industry Classification System (NAICS) codes. Employment, employee compensation, industry expenditures, commodity demands, relationships between industries, and more are collected to form IMPLAN’s ever-growing database. For more information, see: <https://www.implan.com/data/>.

Agriculture, Forestry, and Other Land Use

The AFOLU sector accounts for emissions from land-related changes and includes agriculture, forestry and aggregate sources (including biomass burning and fertilizer use). This sector also includes emissions from forest land conversion. Urban tree canopy and land cover statistics were tabulated by the California Center for Sustainable Communities at the University of California, Los Angeles (UCLA) Institute of Environment and Sustainability, using a tree canopy analysis developed by TreePeople and the University of Vermont with 2014 Los Angeles Region Imagery Acquisition Consortium (LARIAC) land cover data. Based on historic land conversion data from 2007-2016, approximately 212 hectares of forest land is converted to urban land each year in unincorporated county areas. The conversion of a single hectare results in a one-time emission of 169 MTCO_{2e}; this value was multiplied by 212 to estimate total annual land conversion emissions.⁴⁶

This sector does not include natural carbon sequestration and storage in the unincorporated Los Angeles County's natural lands, working lands, and urban forests because these sinks are part of the natural carbon cycle and are not anthropogenic emissions sources. Further, forest sinks are not currently included in CARB's statewide inventory or SB 32's statewide GHG emission reduction target for 2030.^{47,48} The statewide GHG inventory includes the "AB 32 GHG Inventory Sectors," which are anthropogenic emissions sources, a framework that is consistent with international and national GHG inventory practices and is aligned with requirements in AB 32.⁴⁹ CARB accounts for the exchange of ecosystem carbon between the atmosphere and the plants and soils in land, which includes forest sinks, in the Natural and Working Lands Ecosystem Carbon Inventory, which also includes the amount of carbon impacted by wildfire.⁵⁰ The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), for the first time, incorporates the contribution of natural and working lands (NWL) to the state's GHG emissions, as well as their role in achieving carbon neutrality by 2045 as mandated by AB 1279.⁵¹ However, the 2045 CAP's target of reducing emissions 85 percent below 1990 levels by 2045 aligns with the AB 1279 statewide target of reducing *anthropogenic* emissions to 85 percent below 1990 levels by 2045. Neither this statewide target nor the 2045 CAP's target incorporate emissions and sinks from the NWL sectors.^{52,53} Achieving the County's aspirational goal of carbon neutrality by 2045 may include a full accounting of natural carbon sequestration and storage in unincorporated Los Angeles County's natural lands in a future update to the 2045 CAP. The County may consider strategies to increase natural carbon removals through land management activities that prioritize restoring and enhancing ecosystem functions to improve resilience to climate change impacts, including more stable carbon stocks.

⁴⁶ NASS, CropScape. 2021. Available at: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

⁴⁷ Moreno, Adam. Lead Natural and Working Lands Climate Scientist. California Air Resources Board. Email correspondence with ESA on November 15, 2021.

⁴⁸ CARB, *California Greenhouse Gas Emissions for 2000 to 2020 Trends of Emissions and Other Indicators*. October 26, 2022. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed February 2023.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ CARB, *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan>. Accessed February 2023.

⁵² Ibid.

⁵³ It should be noted that the statewide target of carbon neutrality by 2045 includes NWL sectors, and the state's CO₂ capture and removal target of 100 million MTCO_{2e} by 2045 must compensate for any residual emissions from the AB 32 GHG Inventory sectors and NWL emissions to support achieving carbon neutrality.

Emissions from biomass burning (post-harvest agricultural burning) and fertilizer use (including liming, urea, organic and synthetic fertilizer) are reported under aggregate sources. Emissions from post-harvest biomass burning (barley, corn, wheat and almond) in unincorporated areas are estimated using 2016 cropland area from NASS CropScape⁵⁴ and relevant emission factors from the CARB 2000-2019 California GHG inventory.⁵⁵

Emissions from fertilizer use for agriculture in Los Angeles County are estimated based on California Department of Food and Agriculture (CDFA) annual reports and scaled for unincorporated areas using 2016 cropland area from NASS CropScape.⁵⁶ **Table A-5** presents scopes, activity data, and emissions for the AFOLU sector. **Figure A-4** shows the contribution of each subsector to the AFOLU sector for both the 2015 and 2018 inventories.

Table A-5: AFOLU Scope, Activity, and GHG Emissions by Sub-sector

| CATEGORY | SCOPE | 2015 INVENTORY | | 2018 INVENTORY | |
|---|-------|--|---------------------------------|--|---------------------------------|
| | | ACTIVITY | EMISSIONS (MTCO ₂ E) | ACTIVITY | EMISSIONS (MTCO ₂ E) |
| AFOLU | | | | | |
| Land Use Change | 1 | Total Forest Land Area: 52,498 acres ^a Forest Land Conversion: -212 hectares/year Urban Tree Canopy: 11,938 hectares ^a | 35,811 | Total Forest Land Area: 52,498 acres ^a Forest Land Conversion: -212 hectares/year Urban Tree Canopy: 11,938 hectares ^a | 35,811 |
| Aggregate Sources and Non-CO2 Emissions Sources | 1 | Biomass Burning (Crops): 61 acres Liming: 152 tons Urea Application: 1,026 tons Managed Soils: 5,374 tons | 25,048 | Biomass Burning (Crops): 61 acres Liming: 152 tons Urea Application: 1,026 tons Managed Soils: 5,374 tons | 25,048 |
| TOTAL | | | 60,860 | | 60,860 |

NOTES:

^a Forest land area and urban tree canopy cover data are reported for informational purposes only. These data are not used to generate emissions sinks for inclusion in the GHG inventories.

⁵⁴ NASS, CropScape. 2021. Available at: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

⁵⁵ CARB, GHG Inventory Data Archive. 2021. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021

⁵⁶ CDFA, California Agricultural Statistics Review 2015-2016. 2016. Available at: <https://www.cdfa.ca.gov/statistics/PDFs/2016Report.pdf>. Accessed January 2021.

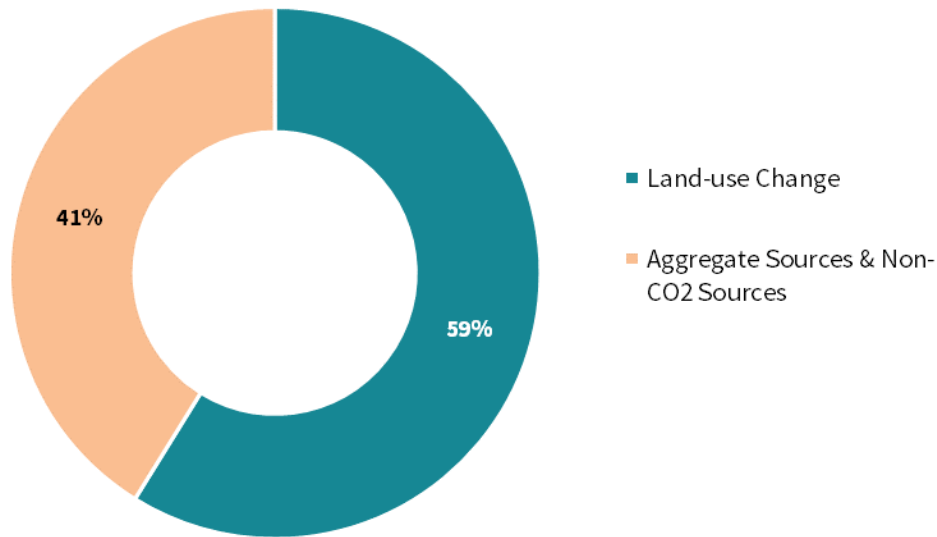


Figure A-4: 2015 & 2018 AFOLU Emissions by Sub-sector

Data Sources:

- NASS CropScape
Link: <https://nassgeodata.gmu.edu/CropScape/>
- CDFA, California Agricultural Statistics Review 2015-2016
Link: <https://www.cdfa.ca.gov/statistics/PDFs/2016Report.pdf>
- TreePeople, Los Angeles County Tree Canopy Map Viewer
Link: <https://www.treepeople.org/los-angeles-county-tree-canopy-map-viewer/>
- California GHG Inventory
Link: <https://www.arb.ca.gov/cc/inventory/pubs/pubs.htm>
- GIS analysis by UCLA Institute of Environmental Studies
Link: <https://lacounty.maps.arcgis.com/home/search.html?q=CURes%40lmu.edu&restrict=false>

Summary Emissions

Table A-6 presents total GHG emissions for all sectors and subsectors in the 2015 and 2018 GHG inventories. **Figure A-5** compares the 2015 and 2018 inventories with a sector breakdown.

Table A-6: GHG Emissions by Sector and Sub-sector

| CATEGORY | 2015 EMISSIONS (MTCO ₂ E) | 2018 EMISSIONS (MTCO ₂ E) |
|---|---|---|
| Transportation | 2,838,133 | 2,704,685 |
| Passenger Vehicles | 2,797,360 | 2,665,824 |
| Buses | 31,360 | 29,371 |
| Railway | 9,413 | 9,490 |
| Stationary Energy | 1,908,637 | 1,698,809 |
| Residential Buildings | 1,030,285 | 962,743 |
| Commercial, Institutional, and Agricultural Buildings | 386,753 | 349,373 |
| Manufacturing and Construction Buildings | 309,449 | 244,417 |
| Energy Industries | 121,252 | 98,554 |
| Fugitive Emissions from Oil and Natural Gas Systems | 58,222 | 41,066 |
| Agriculture, Forestry and Other Fishing Activities | 2,675 | 2,658 |
| Waste and Wastewater | 469,997 | 469,382 |
| Solid Waste Disposal | 404,604 | 407,578 |
| Biological Treatment of Solid Waste | 10,214 | 5,309 |
| Waste Incineration* | 1,184 | 547 |
| Wastewater Treatment | 55,179 | 56,495 |
| IPPU | 253,529 | 239,505 |
| Product Use | 253,529 | 239,505 |
| AFOLU | 60,860 | 60,860 |
| Land Use Change | 35,811 | 35,811 |
| Aggregate Sources and Non-CO ₂ Emissions Sources | 25,048 | 25,048 |
| TOTAL | 5,531,155 | 5,173,240 |

NOTE: Waste and Wastewater totals exclude Waste Incineration which is accounted for under Stationary Energy.

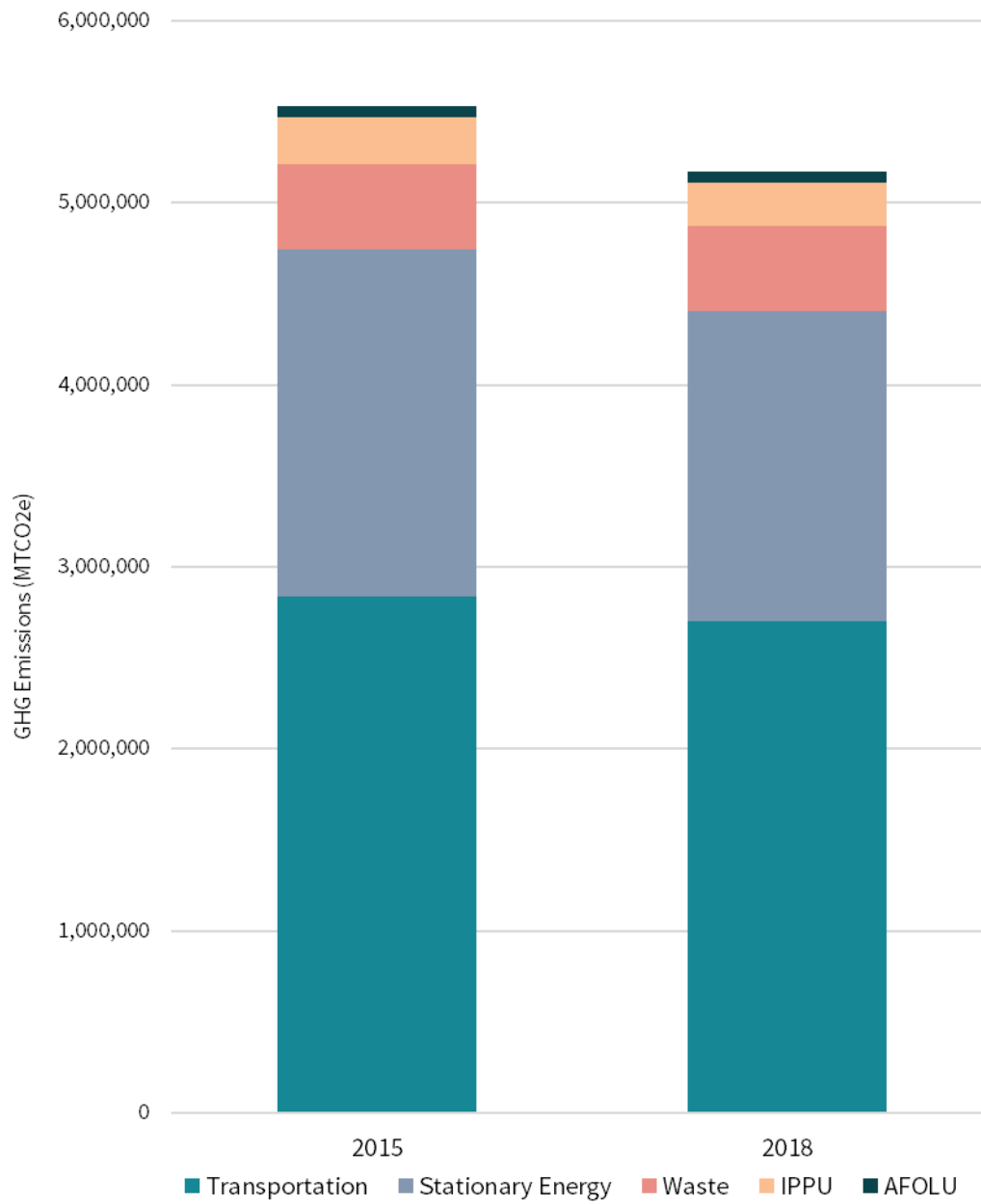


Figure A-5: 2015 and 2018 Emissions Inventory Comparison by Sector

A.2 1990 and 2010 Greenhouse Gas Inventory and Backcasting Methods

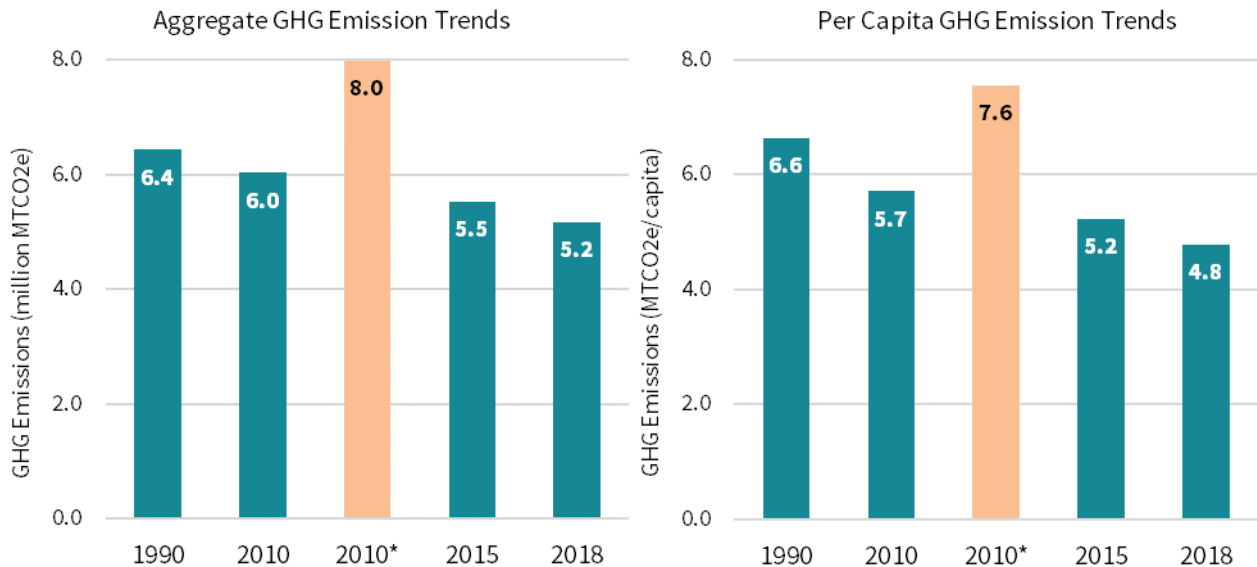
In 2015, the Los Angeles Regional Collaborative (LARC) and ICF International created a GHG emissions inventory for unincorporated Los Angeles County using the 2013 ICLEI U.S. Community Protocol.⁵⁷ The 2010 inventory accounted for Scope 1 and 2 emissions using AR4 GWP values. Additionally, Scope 3 emissions were estimated for additional sub-categories—including water conveyance, and water supply, treatment and distribution—that are not accounted for in the 2015 and 2018 GHG inventories. The 2015 and 2018 GHG emissions inventory methods follow the GPC protocol, as discussed above. The 2015 and 2018 inventories include GHG emissions from industrial processes, product use, fugitive emissions from oil and natural gas systems, and other aggregate carbon dioxide sources that were not included in the 2010 inventory. **Table A-7** shows the differences in sub-sectors included in the two protocols and respective inventories.

Table A-7: Sectors and Sub-sectors in ICLEI and GPC Protocol

| 2013 ICLEI US COMMUNITY PROTOCOL USED FOR 2010 INVENTORY | 2019 GPC PROTOCOL USED FOR 2015 AND 2018 INVENTORY |
|---|--|
| <ul style="list-style-type: none"> • Transportation <ul style="list-style-type: none"> ○ On-Road Transportation ○ Off-Road Transportation and Equipment | <ul style="list-style-type: none"> • Transportation <ul style="list-style-type: none"> ○ On-Road Transportation ○ Off-Road Transportation ○ Railways |
| <ul style="list-style-type: none"> • Building Energy • Stationary Sources | <ul style="list-style-type: none"> • Stationary Energy <ul style="list-style-type: none"> ○ Buildings ○ Energy Industries ○ Agriculture, Forestry and Other Fishing Activities ○ Fugitive Emissions from Oil and Natural Gas Systems |
| <ul style="list-style-type: none"> • Solid Waste • Wastewater Treatment | <ul style="list-style-type: none"> • Waste <ul style="list-style-type: none"> ○ Solid Waste ○ Biological Treatment of Solid Waste ○ Waste Incineration ○ Wastewater Treatment |
| <ul style="list-style-type: none"> • Agriculture (including livestock management) • Urban and Natural Forests (for informational purposes only) | <ul style="list-style-type: none"> • AFOLU <ul style="list-style-type: none"> ○ Land and Land-use Change (including Urban and Natural Forests) ○ Aggregate sources and non-CO2 emission sources |
| <ul style="list-style-type: none"> • Water Conveyance • Water Supply, Distribution and Treatment (for informational purposes only) | <ul style="list-style-type: none"> • IPPU <ul style="list-style-type: none"> ○ Product use |

⁵⁷ ICLEI – Local Governments for Sustainability USA, *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions*, Version 1.1, July 2013.

Due to differences in the two GHG protocols and accounting methods used for the 2010 inventory and the 2015 and 2018 inventories, it is not possible to directly compare emissions from each sector and sub-sector. To monitor emissions reduction between 2010 and 2015/2018 and to ensure consistency with previous County commitments (dating back to 1990), the GPC protocol was used to develop a backcasting model for unincorporated Los Angeles County’s emissions. GHG emissions from each sector and sub-sector were scaled from 2015 to 1990 by using County and state parameters and datasets discussed in **Table A-8** below. Using the backcasting model, it is estimated that GHG emissions in 2015 are eight percent lower than 2010 and 14 percent lower than 1990. However, per-capita GHG emissions in 2015 are nine percent lower than 2010 and 21 percent lower than 1990 despite the increase in population, as illustrated in **Figure A-6**. 2018 emissions are estimated to be 14 percent below 2010 emissions and 20 percent below 1990 emissions; per-capita GHG emissions in 2018 are estimated to be 16 percent below 2010 emissions and 28 percent below 1990 emissions, illustrating a substantial decline in total emissions both at the aggregate level and at the per-capita level.



* 2010 GHG emissions inventory reported in unincorporated Los Angeles County 2020 CCAP.

Figure A-6: 1990 to 2018 GHG Emissions Trends

Table A-8: Assumptions for Backcasting GHG Emissions to 2010 and 1990

| SECTOR/SUB-SECTOR | BACKCASTING PARAMETERS |
|---|---|
| Transportation | 3,450,566 (1990); 3,015,442 (2010) |
| On-Road Transportation | <ul style="list-style-type: none"> • VMT from on-road vehicles are estimated by interpolating VMT in unincorporated Los Angeles County for the years 2016 and 2040 as reported by Fehr & Peers using SCAG's 2016 regional travel demand model. • Emission factors for on-road vehicles (including passenger vehicles, trucks, and buses) are estimated by linearly interpolating EMFAC2021 emission rates from 2000-2020 to extrapolate emission rates to 1990. |
| Railways | GHG emissions are assumed to be constant from 1990 to 2015. |
| Stationary Energy | 2,226,141 (1990); 2,146,743 (2010) |
| Residential Buildings | Emissions from energy use in residential buildings are backcasted based on Countywide residential natural gas and electricity consumption as reported by CEC from 1990 to 2014. |
| Commercial and Institutional Buildings | Emissions from energy use in commercial buildings are backcasted based on Countywide non-residential natural gas and electricity consumption as reported by CEC from 1990 to 2014. |
| Manufacturing and Construction: Buildings | Emissions from energy use in commercial buildings are backcasted based on Countywide non-residential natural gas and electricity consumption as reported by CEC from 1990 to 2014. |
| Manufacturing and Construction: Equipment | <ul style="list-style-type: none"> • 2015 emissions from stationary equipment are scaled down using countywide GHG emissions based on construction and manufacturing jobs in unincorporated Los Angeles County. • GHG emissions are assumed to be constant from 1990 to 2015. |
| Energy Industries | GHG emissions for 1990-2010 are estimated as the average of reported emissions from 2011-2017. |
| Agriculture, Forestry and Other Fishing Activities | GHG emissions are assumed to be constant from 1990 to 2015. |
| Fugitive Emissions from Oil and Natural Gas Systems | GHG emissions are assumed to be constant from 1990 to 2015. |
| Waste | 511,965 (1990); 564,503 (2010) |
| Solid Waste Disposal | <ul style="list-style-type: none"> • Emissions from organic waste disposal between 2010 and 2014 are scaled based on waste disposal tonnage reported by PW's SWIMS database. • GHG emissions from 1990 to 2009 are backcasted based on population. |
| Biological Treatment of Solid Waste | <ul style="list-style-type: none"> • Emissions from biological treatment between 2010 and 2014 are scaled based on waste disposal tonnage reported by PW's SWIMS database. • GHG emissions from 1990 to 2009 are backcasted based on population. |
| Waste Incineration | GHG emissions are assumed to be constant from 1990 to 2015. |
| IPPU | 173,534 (1990); 243,456 (2010) |
| Product Use* | GHG emissions from 1990 to 2014 are backcasted based on population. |
| AFOLU | 25,048 (1990); 60,860 (2010) |
| Land-use Change | Average land conversion rates from 2006-2015 were used to estimate emissions back to 2006. Emissions were assumed to be zero from 1990-2006. |
| Aggregate Sources and Non-CO ₂ Emissions Sources | GHG emissions are assumed to be constant from 1990 to 2015. |

A.3 2018 to 2045 Business-as-Usual Forecasts

This section describes the approach for modeling business-as-usual (BAU) emissions, which represents future emissions based on current population and regional growth trends, land use growth patterns, and regulations or policies introduced before the 2018 baseline year. The BAU scenario demonstrates the growth in GHG emissions that would occur if no further action were to be taken by the County, the State of California, or the federal government after 2018.

The BAU forecast serves as a reference point for other forecasting scenarios, which include the Adjusted BAU that incorporates federal, state, and local actions (see CAP Appendix B: Adjusted Business-as-Usual Forecast and Emission Reduction Methods) and the GHG reductions from CAP implementation (see CAP Appendix B: GHG Reduction Measures and Actions). This section describes the BAU projections by sector, which are based on growth trends including current population and regional economic growth projections.

Additional details on the assumptions for each sector are included in the sections below.

Figure A-7 presents population and employment projections for unincorporated Los Angeles County from 2015 to 2045.

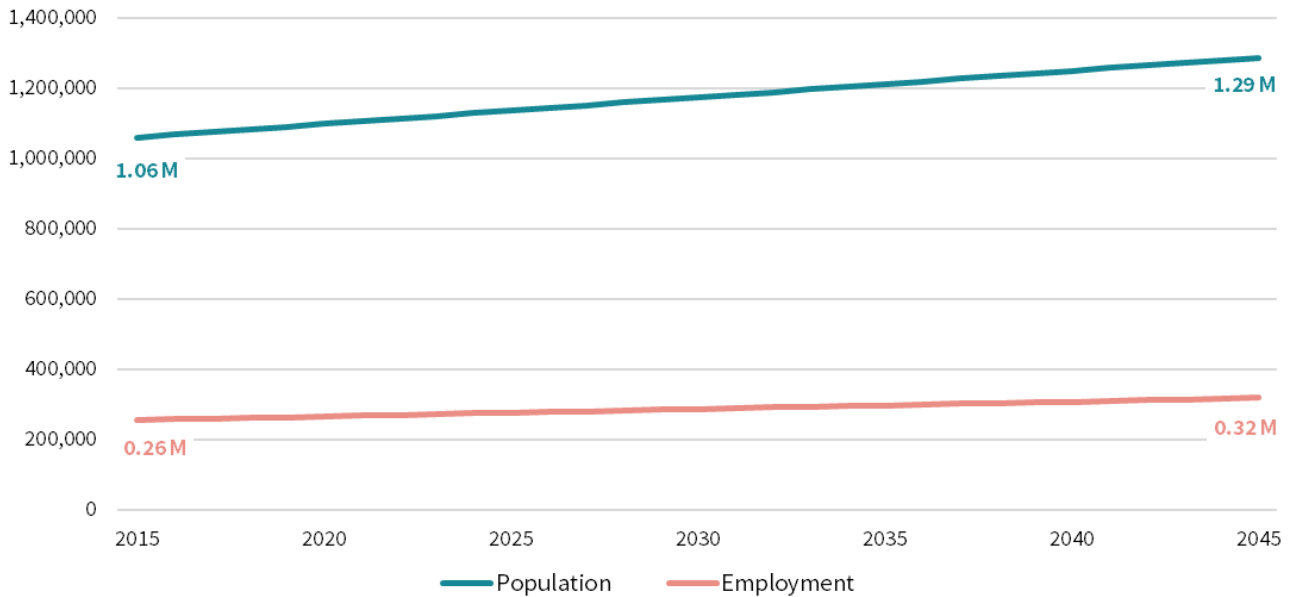


Figure A-7: Unincorporated Los Angeles County Population and Employment Projections

Stationary Energy

Table A-9 presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the stationary energy sector.

Table A-9: Stationary Energy GHG Emissions – 2018 Inventory and BAU Forecasts

| STATIONARY ENERGY SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|---|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Residential Buildings | 962,743 | 869,099 | 889,314 | 944,823 |
| Commercial, Institutional, and Agricultural Buildings | 349,373 | 429,107 | 441,191 | 469,816 |
| Manufacturing and Construction Buildings | 244,417 | 301,729 | 309,350 | 324,331 |
| Energy Industries | 98,554 | 29,495 | 29,526 | 29,587 |
| Fugitive Emissions from Oil and Natural Gas Systems | 41,066 | 49,130 | 49,251 | 49,493 |
| Agriculture, Forestry and Other Fishing Activities | 2,658 | 2,600 | 2,580 | 2,562 |
| TOTAL | 1,698,809 | 1,681,160 | 1,721,212 | 1,820,612 |

Residential Buildings

Energy consumption (electricity and natural gas) in residential buildings is forecasted based on building footprint projections for residential building stock in unincorporated Los Angeles County. Building footprint projections are based on historical trends from the County Assessor Parcel Database (2006-2018).⁵⁸ In 2019, residential customers in unincorporated Los Angeles County were enrolled in CPA’s Clean Power rate option (50 percent eligible renewable), leading to an initial decline in residential building emissions through 2025, before they rise in 2030, 2035, and 2045 alongside population and economic growth. For purposes of the BAU projections it is assumed that CPA customers in unincorporated areas continue to receive 50 percent eligible renewable electricity until 2045 and the remaining customers continue to receive electricity from SCE with the emissions factors and participation rates held constant. GHG emissions in 2019 are calculated using 2018 natural gas and electricity emission factors with 2019 CPA participation rates. GHG emissions between 2020-2045 are calculated using 2020 electricity emission factors.

Data Sources:

- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission Factor
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report (July 28, 2021)
Provided by CPA via County CSO
- Climate Registry Information System (CRIS)
Link: [https://cris4.org/\(S\(zr3twbbnour5a5jfb1iykcxa\)\)/frmLILogin.aspx](https://cris4.org/(S(zr3twbbnour5a5jfb1iykcxa))/frmLILogin.aspx)
- UCLA analysis of County Parcel Assessor’s Data
Provided by UCLA Institute of Environmental Studies

⁵⁸ UCLA Institute of Environmental Studies, Analysis of County Parcel Assessor’s Data. 2018.

Commercial and Institutional Buildings

Energy consumption in commercial, institutional, and agricultural buildings is forecasted based on building footprint projections for non-residential building stock in unincorporated Los Angeles County. Commercial and Institutional building footprint projections are based on historical trends from the County Assessor Parcel Database (2006-2018). In June 2018, non-residential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power option. Under this program, over 95 percent of non-residential customers started receiving 50 percent eligible renewable electricity from CPA. For purposes of the BAU projections it is assumed that CPA customers in unincorporated areas continue to receive 50 percent eligible renewable electricity until 2045 and the remaining customers continue to receive electricity from SCE with the emissions factors and participation rates held constant. GHG emissions in 2019 are calculated using 2018 natural gas and electricity emission factors with 2019 CPA participation rates. GHG emissions between 2020-2045 are calculated using 2020 electricity emission factors. GHG emissions from agricultural buildings are assumed to remain constant.

Data Sources:

- SCE Emission Factor
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission Factor
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLLLogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLLLogin.aspx)
- UCLA analysis of County Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies

Manufacturing and Construction Buildings

ELECTRICITY AND NATURAL GAS

Energy consumption (electricity and natural gas) in manufacturing and industrial buildings is forecasted based on building footprint projections for non-residential building stock in unincorporated Los Angeles County. Building footprint projections are based on historical trends from the County Assessor Parcel Database (2006-2018).⁵⁹ In June 2018, non-residential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power option. Under this program, over 95 percent of non-residential customers started receiving 50 percent eligible renewable electricity from CPA. For purposes of the BAU projections it is assumed that CPA customers in unincorporated areas continue to receive 50 percent eligible renewable electricity until 2045 and the remaining customers continue to receive electricity from SCE with the emissions factors and participation rates held constant. GHG emissions in 2019 are calculated using 2018 natural gas and electricity emission factors with 2019 CPA participation rates. GHG emissions between 2020-2045 are calculated using 2020 electricity emission factors.

OFF-ROAD EQUIPMENT

Countywide GHG emissions from off-road equipment used in the manufacturing and construction sector are obtained from CARB's OFFROAD2017 ORION tool.⁶⁰ The tool provides countywide

⁵⁹ UCLA Institute of Environmental Studies, Analysis of Los Angeles County Parcel Assessor's Data. 2018.

⁶⁰ CARB, OFFROAD ORION. 2018. Available at: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

carbon dioxide emissions and annual gasoline and diesel consumption by off-road equipment to 2045. Emission projections for unincorporated Los Angeles County are estimated by scaling Countywide emissions using construction and manufacturing jobs in 2017 for unincorporated Los Angeles County areas.

Data Sources:

- CARB OFFROAD2017 ORION
Link: <https://www.arb.ca.gov/orion/>
- Jobs in Manufacturing and Construction
Link: <https://scag.ca.gov/sites/main/files/file-attachments/losangelescountyp.pdf?1605653130>
- UCLA analysis of County Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies

Energy Industries

Emission projections from energy production at CHP plants, district cooling facilities, biomass power stations, and waste-to-energy facilities, are extrapolated based on 2008 to 2020 GHG emissions reported by the CARB Pollution Mapping Tool and the CARB 2021 MRR Database.⁶¹ For CHP facilities, emissions for Pitchess cogeneration station were assumed to remain constant (the facility was decommissioned in 2018); emissions for Olive View cogeneration station were forecasted using a linear trend in emissions from reported 2012-2020. Waste-to-energy facility biogenic emissions for 2019-2029 were forecasted using a linear trend in emissions reported from 2011-2018 and emission for 2030-2045 were forecasted assuming the Calabasas landfill shuts down and the remaining emissions decline following the trend from 2011 through the forecasting year. Biomass and auxiliary power facility biogenic emissions were forecasted using a linear trend in emissions reported from 2011-2018.

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>

Agriculture, Forestry and Other Fishing Activities

Countywide GHG emissions from agricultural equipment are obtained from CARB's OFFROAD2017 ORION tool. The tool provides countywide carbon dioxide emissions and annual gasoline and diesel consumption by off-road equipment to 2045. Emission projections for unincorporated Los Angeles County are estimated by scaling Countywide emissions using 2016 crop acreage for unincorporated Los Angeles County from USDA's NASS Cropscape database.⁶²

Data Sources:

- CARB OFFROAD2017 ORION
Link: <https://www.arb.ca.gov/orion/>
- USDA NASS Cropscape
Link: <https://nassgeodata.gmu.edu/CropScape/>

⁶¹ CARB, Mandatory GHG Reporting Regulations. April 1, 2019. Available at: <https://ww2.arb.ca.gov/mrr-regulation>. Accessed January 2021.

⁶² NASS, CropScape. 2021. Available at: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

Fugitive Emissions from Oil and Natural Gas Systems

Emissions from extraction, processing, and distribution of crude oil and natural gas, are extrapolated based on 2008 to 2018 GHG emissions reported by the CARB Pollution Mapping Tool.⁶³

Data Sources:

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/

Transportation

Table A-10 presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the transportation sector.

Table A-10: Transportation GHG Emissions – 2018 Inventory and BAU Forecasts

| TRANSPORTATION SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Passenger Vehicles | 2,665,824 | 2,738,675 | 2,769,029 | 2,829,737 |
| Buses | 29,371 | 35,589 | 35,676 | 35,852 |
| Railways | 9,490 | 10,255 | 10,389 | 10,658 |
| TOTAL | 2,704,685 | 2,784,518 | 2,815,094 | 2,876,247 |

On-road Transportation: Passenger Vehicles and Trucks

VMT from passenger vehicles and trucks were estimated using SCAG's 2016 Regional Travel Demand Model, which forecasts VMT for the year 2040. This model is a trip-based travel forecasting model that generates daily vehicle trips for each TAZ across various trip purposes based on inputs such as the transportation network and socioeconomic data such as population, household, and employment. VMT was provided by F&P for years 2016 and 2040 and was linearly interpolated for 2030 and 2035. VMT for years 2041 through 2045 were linearly extrapolated based on the 2016 to 2040 VMT projection.

GHG emissions from unincorporated areas are calculated using VMT and the weighted emission factors for 2018 by vehicle type (passenger vehicles and trucks)⁶⁴ from the EMFAC2021 model (see transportation section of A.1 above for discussion).⁶⁵ The 2018 emission factor was applied to every year from 2018 through 2045 to represent no changes in the vehicle fleet due to federal, state, or local action.

It should be noted that the transportation modeling for the 2045 CAP shows a five percent decrease in transportation emissions between 2015 and 2018. This decrease is due to declining emission factors from the EMFAC2021 model, which outpace the increase in total VMT as

⁶³ CARB, Pollution Mapping Tool. 2018. Available: https://www3.arb.ca.gov/ei/tools/pollution_map/. Accessed January 2021.

⁶⁴ Passenger vehicles correspond to EMFAC categories LDA, LDT1, LDT2, MCY, and MD. Trucks correspond to EMFAC categories LHDT1, LHDT2, MHDT, HHDT, and MH.

⁶⁵ CARB, EMFAC2021 Model. 2021. Available at: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

modeled with SCAG's 2016 Regional Travel Demand Model. The California Department of Tax and Fee Administration reports that statewide taxable sales of gasoline and diesel fuel increased by two percent from 2015 to 2018.⁶⁶ This increase is also consistent with the statewide GHG inventory prepared by CARB, which also shows a two percent increase in total on-road transportation emissions from 2015 to 2018.⁶⁷ Statewide gasoline and diesel fuel sales may not trend precisely with unincorporated Los Angeles County gasoline and diesel fuel sales, and VMT apportioned to unincorporated Los Angeles County areas may not correlate perfectly with gasoline sales, which could explain the difference. In addition, the VMT used in the inventory is based on the SCAG model, not actual reported VMT or fuel sales data, consistent with the GPC Protocol.

Data Sources:

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- SCAG Regional Travel Demand Model
Provided by SCAG
- Fehr & Peers Modeling Analysis (July 29, 2019; December 2021; January 2022; February 2023)

On-road Transportation: Buses

Emissions for 2015 and 2018 were calculated using fuel consumption data from FTA's NTD⁶⁸ and standard emission factors for diesel, gasoline, and compressed natural gas from EMFAC2021.⁶⁹ Emissions from Metro buses are extrapolated from 2018 through 2045 based on Metro's bus miles and ridership statistics between 2010 and 2017.⁷⁰

Data Sources:

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- Metro Bus Ridership
Link: <https://isotp.metro.net/MetroRidership/Index.aspx>
- FTA National Transit Database
Link: <https://www.transit.dot.gov/ntd/ntd-data>

Railways

Emissions by Southern California Regional Rail Authority (SCRRA or Metrolink) are forecasted based on projected weekday ridership until 2025 as documented in Metrolink's 10 Year Strategic Plan. Emissions from 2025 to 2045 are extrapolated based ridership estimates between 2014 and

⁶⁶ California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. 2022. Available at: [California Retail Fuel Outlet Annual Reporting \(CEC-A15\) Results](#). Accessed April 2022.

⁶⁷ California Air Resources Board, Data used to generate figures in the California Greenhouse Gas Emissions for 2000 to 2019- Trends of Emissions and Other Indicators report. Figure 3. 2022. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed April 2022.

⁶⁸ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

⁶⁹ CARB, EMFAC2021 Model. 2021. Available at: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

⁷⁰ Metro, Interactive Estimated Ridership Stats. 2021. Available at: <https://isotp.metro.net/MetroRidership/Index.aspx>. Accessed January 2021.

2025. Emissions from Metro Rail are extrapolated based on Metro rail miles and ridership statistics between 2010 and 2017.⁷¹

Data Sources:

- Metrolink Strategic Plan
Link: https://www.metrolinktrains.com/globalassets/about/metrolink_10-year_strategic_plan_2015-2025.pdf
- Metro Ridership
Link: <http://isotp.metro.net/MetroRidership/Index.aspx>

Waste and Wastewater

BAU emissions are forecasted for years 2018 through 2045 for emissions generated at landfills, biological treatment (composting and anaerobic digestion) and incineration facilities, and wastewater treatment plants are reported under the waste sector. **Table A-11** presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the waste and wastewater sector.

Table A-11: Waste and Wastewater GHG Emissions – 2018 Inventory and BAU Forecast

| WASTE & WASTEWATER SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|-------------------------------------|--|----------------|----------------|----------------|
| | 2018 | 2030 | 2035 | 2045 |
| Solid Waste Disposal | 407,578 | 386,285 | 386,541 | 410,702 |
| Biological Treatment of Solid Waste | 5,309 | 6,180 | 6,184 | 6,579 |
| Waste Incineration* | 547 | 647 | 687 | 711 |
| Wastewater Treatment | 56,495 | 59,454 | 61,372 | 65,208 |
| TOTAL | 469,382 | 451,919 | 454,097 | 482,489 |

NOTE: Totals exclude Waste Incineration which is accounted for under Stationary Energy

Solid Waste Disposal

Emissions from landfills are determined by extrapolating the 2018 GHG emissions intensity (MTCO₂e/person) based on solid waste and organic waste disposal projections from the Public Works SWIMS database⁷² and population projections by SCAG⁷³ and Caltrans.⁷⁴ Solid waste diversion rate and organics diversion rate are assumed to remain constant at 70 percent and 38 percent respectively, as is the future methane capture rates at all landfills.

Data Sources:

- LADPW SWIMS Database
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>
- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>

⁷¹ FTA, National Transit Database. 2018. Available at: <https://www.transit.dot.gov/ntd/ntd-data>. Accessed January 2021.

⁷² LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

⁷³ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁷⁴ Caltrans, California County-Level Economic Forecast 2017-2050. September 2017. Available at: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>. Accessed January 2021.

- Caltrans Population Projections
Link: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>

Biological Treatment of Solid Waste

Emissions from composting and anaerobic digestion are estimated by extrapolating the 2018 GHG emissions intensity (MTCO₂e/person) based on solid waste and organic waste disposal projections from Public Works SWIMS database.⁷⁵ Solid waste diversion rate and proportion of organic waste diverted from landfills to composting and grinding/mulching facilities remains constant.

GHG emissions from Anaerobic Digestion at JWPCP are scaled based on population growth from 2018 to 2045. These emission projections are reported under Energy Industries.

Data Sources:

- LADPW SWIMS Database
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>

Waste Incineration

See Energy Industries.

Wastewater Treatment

Emissions from wastewater treatment are determined by extrapolating the 2018 GHG emissions intensity (MTCO₂e/person) based on population projections by SCAG⁷⁶ and Caltrans.⁷⁷

Data Sources:

- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- Caltrans Population Projections
Link: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>

Industrial Processes and Product Use

HFC and PFC emissions from the use of foam, solvents and industrial refrigerants, aerosols, fire retardants and refrigerants in residential and transportation sectors are extrapolated based on population projections by SCAG⁷⁸ and Caltrans.⁷⁹ It is assumed that per capita emissions from products remain constant between 2018 to 2045. **Table A-12** presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the IPPU sector.

⁷⁵ LADPW, Solid Waste Information Management System (SWIMS). 2021. Available at: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>. Accessed January 2021.

⁷⁶ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁷⁷ Caltrans, California County-Level Economic Forecast 2017-2050. September 2017. Available at: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>. Accessed January 2021.

⁷⁸ SCAG, Growth Forecasting. 2018. Available at: <https://scag.ca.gov/data-tools-geographic-information-systems>. Accessed January 2021.

⁷⁹ Caltrans, California County-Level Economic Forecast 2017-2050. September 2017. Available at: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>. Accessed January 2021.

Table A-12: IPPU GHG Emissions – 2018 Inventory and BAU Forecast

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------|--|----------------|----------------|----------------|
| | 2018 | 2030 | 2035 | 2045 |
| IPPU | 239,505 | 259,605 | 267,981 | 284,731 |
| TOTAL | 239,505 | 259,605 | 267,981 | 284,731 |

Data Sources:

- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- Caltrans Population Projections
Link: <https://www.shastaedc.org/wp-content/uploads/2018/07/CalTrans-2017-2050.pdf>

AFOLU

GHG Emissions are assumed to be constant between 2018 to 2045. **Table A-13** presents emissions for 2018 along with the BAU forecast for 2030, 2035, and 2045 for the AFOLU sector.

Table A-13: AFOLU GHG Emissions – 2018 Inventory and BAU Forecast

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------|--|---------------|---------------|---------------|
| | 2018 | 2030 | 2035 | 2045 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 |
| TOTAL | 60,860 | 60,860 | 60,860 | 60,860 |

Summary Emissions

Table A-14 and **Figure A-8** present GHG emissions for all sectors for the 2018 GHG inventory and the 2030, 2035, and 2045 BAU forecasts.

Table A-14: GHG Emissions by Sector – 2018 Inventory and BAU Forecast

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|-------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Stationary Energy | 1,698,809 | 1,681,160 | 1,721,212 | 1,820,612 |
| Transportation | 2,704,685 | 2,784,518 | 2,815,094 | 2,876,247 |
| Waste | 469,382 | 451,919 | 454,097 | 482,489 |
| IPPU | 239,505 | 259,605 | 267,981 | 284,731 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 |
| TOTAL | 5,173,240 | 5,238,062 | 5,319,243 | 5,524,939 |

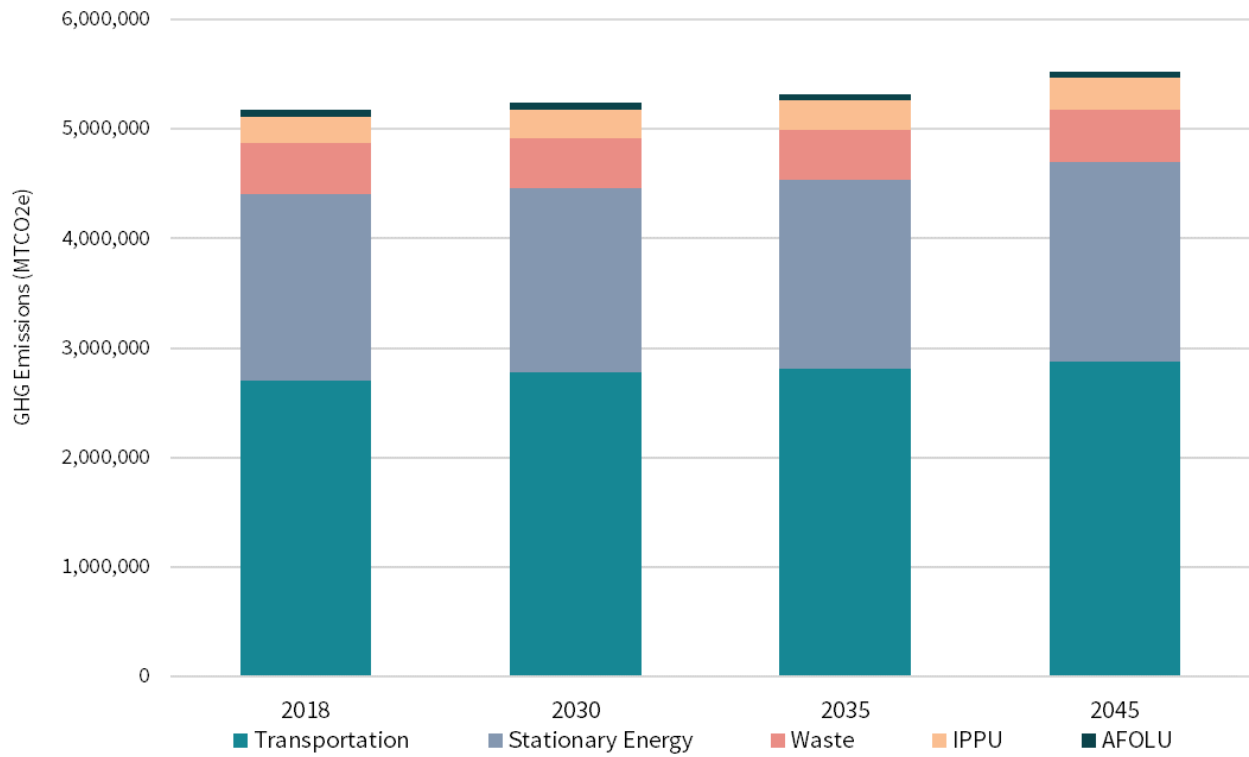


Figure A-8: GHG Emissions by Sector – 2018 Inventory and BAU Forecast

A.4 Derivation of the 2045 CAP's Emission Reduction Targets

Origin of Emission Reduction Targets

The 2045 CAP includes three separate targets and one aspirational goal for three future milestone years:

- By 2030, reduce unincorporated Los Angeles County GHG emissions 40 percent below 2015 baseline levels;
- By 2035, reduce unincorporated Los Angeles County GHG emissions 50 percent below 2015 baseline levels;
- By 2045, reduce unincorporated Los Angeles County GHG emissions 83 percent below 2015 baseline levels; and
- By 2045, achieve carbon neutrality in unincorporated Los Angeles County (long-term aspirational goal).

The 2045 CAP's targets and 2045 aspirational goal are based on the OurCounty Sustainability Plan and CARB's 2022 Scoping Plan. A primary objective of the 2045 CAP is to align with the OurCounty Sustainability Plan targets and state targets. The OurCounty Sustainability Plan conducted a community-wide, Countywide greenhouse gas emissions inventory. That process resulted in individual greenhouse gas inventories for all 88 cities and the unincorporated areas of Los Angeles County. At the time of the OurCounty Plan's preparation, 2015 was the year with the most up-to-date data for all 88 cities and the unincorporated areas, including account-level energy consumption data from the UCLA Energy Atlas. Thus, the OurCounty Plan used 2015 as the baseline year against which to set the Plan's greenhouse gas related targets. During the development of the OurCounty Plan, the County evaluated a series of GHG reduction target options. The targets selected represent the County's commitment to doing its fair share to help California achieve its ambitious statewide GHG targets.

In 2005, Governor Arnold Schwarzenegger's Executive Order (EO) S-3-05 established the 2050 statewide GHG reduction target of 80 percent below 1990 levels, expressing the intent of the State of California to address the issue of climate change by reducing GHGs. Following EO S-3-05, the California legislature passed Assembly Bill 32 (AB 32, Health and Safety Code § 38500, et seq.) in 2006. AB 32 requires the CARB to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). In 2015, Governor Edmund G. Brown, Jr.'s EO B-30-15 established the 2030 statewide GHG reduction target of 40 percent below 1990 levels. In 2016, Senate Bill (SB) 32 and its companion bill AB 197 amended the Health and Safety Code by establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure the benefits of state climate policies accrue to disadvantaged communities. Further, in 2018, Governor Brown signed EO B-55-18, committing California to total, economy-wide carbon neutrality by 2045. In December 2017, CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping

Plan), which outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels as codified by SB 32.⁸⁰

In August 2022, the California Legislature enacted a package of significant climate legislation that included a codification of the state’s goal to reach net-zero GHG emissions by 2045. With the passage of AB 1279, California is committed to reach net zero by no later than 2045. Critically, this goal requires California to cut anthropogenic GHG emissions by 85 percent compared to 1990 levels, ensuring that the state uses all available solutions to sharply cut GHG emissions from industrial facilities, vehicles, power plants, and more. Governor Gavin Newsom signed AB 1279 into law on September 16, 2022.

On December 15, 2022, CARB adopted the 2022 Scoping Plan in response to AB 1279 and other legislation.⁸¹ The 2022 Scoping Plan lays out a path to achieve carbon neutrality no later than 2045 and to reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve the following: significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in short-lived climate pollutants; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon.⁸² Appendix D of the 2022 Scoping Plan includes recommendations for local government actions to align with the state’s climate goals, focusing on local GHG emissions reduction strategies.⁸³ According to CARB, “local government actions are crucial for supporting attainment of the state’s climate goals” and local government leadership is “critical to implementing State-level measures to address GHG emissions associated with transportation and the built environment.”

Table A-15 outlines the state’s GHG reduction targets.

The 2045 CAP retains OurCounty’s target for 2035 and identifies OurCounty’s 2045 carbon neutrality target as a long-term aspirational goal. The 2045 CAP adds a new GHG emission reduction target for 2030 to align with SB 32.⁸⁴ The Draft 2045 CAP’s 2030 target was selected based on guidance provided in the 2017 Scoping Plan and was developed to demonstrate consistency with the statewide 2030 target shown in Table A-15, above. The Draft 2045 CAP’s 2030 target is established based on a reduction from 2015 baseline levels (just like the OurCounty targets for 2025 and 2035) and is equal to 40 percent below 2015 emissions or 4.9 million MTCO₂e. This compares to unincorporated Los Angeles County’s 2030 BAU forecast of 5.2 million MTCO₂e, as presented in Table A-14 above. A 40 percent reduction below 2015 levels

⁸⁰ California Air Resources Board, *California’s 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target*. November 2017. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents>. Accessed January 2022.

⁸¹ California Air Resources Board, *Resolution 22-21: 2022 Climate Change Scoping Plan for Achieving Carbon Neutrality*. Agenda Item No. 22-16-1. December 15, 2022. Available: <https://ww2.arb.ca.gov/sites/default/files/barcu/board/res/2022/res22-21.pdf>. Accessed December 2022.

⁸² California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed December 2022.

⁸³ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D Local Actions*. November 16, 2022. Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed December 2022.

⁸⁴ The 2045 CAP excludes OurCounty’s 2025 target because implementation of the CAP will barely be underway by 2025. Instead, the 2045 CAP focuses on the closest reasonable target timeframes of 2030 and 2035, and also to align with state planning for 2030 (SB 32 does not stipulate an interim target for 2025).

is also equivalent to a 48 percent reduction below unincorporated Los Angeles County’s 1990 GHG emissions levels, which is more stringent than the state target of a 40 percent reduction below 1990 levels by 2030 (for additional discussion, see section below).

Table A-15: State of California Greenhouse Gas Emission Reduction Targets

| TARGET YEAR | STATE GHG TARGET | CORRESPONDING STATE LEGISLATION |
|-------------|---|---|
| 2020 | 1990 levels | Assembly Bill 32, the California Global Warming Solutions Act (2006) |
| 2030 | 40% below 1990 levels | Senate Bill 32, the Global Warming Solutions Act (2006) |
| 2045 | 85% below 1990 levels and net zero GHG emissions ^a | Assembly Bill 1279, the California Climate Crisis Act (2022) ^b |

NOTES:

^a. Net zero means that emissions of GHGs to the atmosphere are balanced by removals of greenhouse gases (GHGs) over a period of time, as determined by the California Air Resources Board. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is removed from the atmosphere, both in natural sinks (such as trees) and through mechanical sequestration (such as direct air capture), over the same time period.

^b. Executive Order S-3-05 (2005) set a target of 80% below 1990 levels, which was superseded by Assembly Bill 1279.

The Draft 2045 CAP’s 2035 target was selected based on guidance provided in both the 2017 Scoping Plan and the 2022 Scoping Plan and was chosen as a milestone target to put unincorporated Los Angeles County on the trend to achieve the 2045 CAP’s 2045 target and the long-term aspirational goal of carbon neutrality by 2045. This 2035 target was developed to demonstrate consistency with the pathway needed to achieve the statewide 2045 targets shown in Table 2-4, above. The Draft 2045 CAP’s 2035 target is established based on a reduction from 2015 baseline levels and is equal to 50 percent below 2015 emissions (2.8 million MTCO_{2e}). This compares to unincorporated Los Angeles County’s 2035 BAU forecast of 5.3 million MTCO_{2e}. A 50 percent reduction below 2015 levels is also equivalent to a 57 percent reduction below unincorporated Los Angeles County’s 1990 GHG emissions levels.

The Draft 2045 CAP’s target for 2045 was selected based on guidance for CAP targets provided in the 2022 Scoping Plan and was developed to demonstrate consistency with the statewide 2045 target shown in Table A-15, above. It is based on a reduction from 2015 baseline levels and is equal to 83 percent below 2015 emissions (958,000 MTCO_{2e}). This compares to unincorporated Los Angeles County’s 2045 BAU forecast of 5.5 million MTCO_{2e}. An 83 percent reduction below 2015 levels is also equivalent to an 85 percent reduction below unincorporated Los Angeles County’s 1990 GHG emissions levels, which in turn is equivalent to the state target of an 85 percent reduction below 1990 levels by 2045. **Table A-16** presents a comparison between the 2045 CAP’s targets for 2030 and 2035, along with its aspirational 2045 goal, and the OurCounty Sustainability Plan targets for each future milestone year.

Table A-16: GHG Emissions Targets and Goals for the Draft 2045 Cap and OurCounty Sustainability Plan

| YEAR | 2045 CAP (UNINCORPORATED COUNTY ONLY) | OURCOUNTY SUSTAINABILITY PLAN (UNINCORPORATED COUNTY AND CITIES) | GHG EMISSIONS (MTCO ₂ E) (UNINCORPORATED COUNTY) |
|------|---|--|---|
| 2025 | n/a | 25% below 2015 baseline levels | 4,148,366 |
| 2030 | 40% below 2015 levels | n/a | 3,318,693 |
| 2035 | 50% below 2015 levels | 50% below 2015 levels | 2,765,578 |
| 2045 | 83% below 2015 levels (85% below 1990 levels) Carbon neutrality ^a | Carbon neutrality by 2045 for county operations (by 2050 countywide) | 958,088 |

NOTE:

^a. The Draft 2045 CAP includes an aspirational goal, rather than a target, of carbon neutrality by 2045.

The Targets as Levels of Significance for GHG Impacts under CEQA

CEQA Guidelines Section 15183.5(b) stipulates that project-specific environmental documents can find that project-level GHG emissions are not cumulatively considerable if the project complies with the requirements of a qualified GHG emissions reduction plan. As discussed in the Draft Environmental Impact Report for the 2045 CAP, upon certification of the EIR and approval of the 2045 CAP, the 2045 CAP would meet the requirements of a qualified GHG emission reduction plan per CEQA Guidelines Section 15183.5(b)(1) for projects through 2035.

To meet the requirements of CEQA Guidelines Section 15183.5(b), a qualified GHG emissions reduction plan must include several important elements, and must:

- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable (§ 15183.5(b)(1)(B)).

The Draft 2045 CAP identifies a GHG emissions reductions target for the year 2030 that is 40 percent below baseline 2015 levels, which is equivalent to 47 percent below 1990 levels. This 2030 target for unincorporated Los Angeles County is therefore more stringent than the statewide target of 40 percent below 1990 levels by 2030 pursuant to SB 32. The Draft 2045 CAP’s 2035 target of 50 percent below 2015 levels puts unincorporated Los Angeles County on a pathway to achieve the Draft CAP’s 2045 target and the statewide 2045 target in AB 1279. The Draft 2045 CAP’s 2045 target of 83 percent below 2015 levels is equivalent to an 85 percent reduction below 1990 levels, which aligns with the State of California’s target of 85 percent below 1990 levels. The 2045 CAP’s long-term aspirational goal of carbon neutrality by 2045 is also consistent with AB 1279 and the 2035 target puts unincorporated Los Angeles County on a path to achieve carbon neutrality.

Consistency with State Target as a Threshold of Significance

While several state-level initiatives will help reduce GHG emissions, they alone will not be sufficient to meet the 2030 target mandated by SB 32. This is one of the many reasons why the

County has prepared the 2045 CAP: so it can contribute its fair share of emission reductions to achieve the statewide targets for 2030 and beyond.

Consistency with the CARB 2022 Scoping Plan and the state's statutory GHG emissions reduction targets is an appropriate metric by which to determine the significance of the Draft 2045 CAP's GHG emissions. CEQA Guidelines Section 15064.4(b)(3) states that a lead agency "may consider a project's consistency with the state's long-term climate goals or strategies" when determining the significance of a project's impacts. Additionally, in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204 (Newhall), the California Supreme Court sanctioned the use of such a threshold: The Court stated that assessing a project's GHG impacts based on a "consistency with a GHG emission reduction plan" threshold of significance is legally permissible under CEQA.

The 2030 unincorporated Los Angeles County target above is derived using the 2017 Scoping Plan's recommendations for local land use development to contribute their "fair share" of emission reductions to the statewide GHG target for 2030. This is also consistent with the Association of Environmental Professionals (AEP) 2016 white paper recommendation for "Substantial Progress" thresholds for land use development to show consistency with statewide targets.⁸⁵ As discussed above, the Draft 2045 CAP's 2030 target of 40 percent below 2015 levels (a gross emissions target) exceeds the statewide 2030 target as codified in SB 32 and the 2017 Scoping Plan. Unincorporated Los Angeles County's emissions in 2015 are estimated to be 12 percent lower than 1990 emissions;⁸⁶ this compares to statewide emissions that were 2.3 percent higher in 2015 compared to 1990.⁸⁷ Additionally, unincorporated Los Angeles County's emissions in 2018 are estimated to be 20 percent lower than 1990 emissions; this compares to statewide emissions that were 1.3 percent lower in 2018 compared to 1990.⁸⁸ In other words, unincorporated Los Angeles County has been more successful than the state as a whole in reducing gross emissions since 1990. Consequently, the Draft 2045 CAP's gross emissions target is *more* stringent than the corresponding state target when comparing to 1990 levels and approximately equivalent when using a per-capita metric.⁸⁹ The Draft 2045 CAP's 2030 target also sets unincorporated Los Angeles County on a path to achieve California's 2045 GHG emission reduction target in AB 1279.

The Draft 2045 CAP's 2045 target of 83 percent below 2015 levels aligns with the statewide 2045 target, as codified in AB 1279 and implemented in the 2022 Scoping Plan. This is because the County's 2045 target of 85 percent below 2015 levels is equivalent to an 85 percent reduction below 1990 levels, which aligns with the State of California's target of 85 percent below 1990

⁸⁵ Association of Environmental Professionals (AEP). 2016, *Final White Paper - Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18. Available at: https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf. Accessed December 2021.

⁸⁶ To demonstrate consistency with statewide targets, to assess unincorporated Los Angeles County's progress since 1990, and to ensure that interim emissions reduction targets align with commitments prior to 2015, a backcasting model was developed (see section A.2 of this appendix).

⁸⁷ California Air Resources Board, *California's Greenhouse Gas Inventory by Scoping Plan Category*, Fourteenth Edition: 2000 to 2019, Last updated on 6/1/2021. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed January 2022.

⁸⁸ *Ibid.*

⁸⁹ Per-capita emissions for unincorporated Los Angeles County are 19 percent lower in 2015 (6.1 MTCO₂e/capita) compared to 1990 (7.6 MTCO₂e/capita) and 28 percent lower in 2018 (5.4 MTCO₂e/capita) compared to 1990. This compares to total statewide per-capita emissions that were 22 percent lower in 2015 (11.3 MTCO₂e/capita) compared to 1990 (14.5 MTCO₂e/capita) and 26 percent lower in 2018 (10.8 MTCO₂e/capita) compared to 1990. The 2030 statewide target of 6.2 MTCO₂e/capita is 57 percent below 1990 statewide levels, whereas the 2045 CAP's 2030 target of 3.3 MTCO₂e/capita is 56 percent below 1990 unincorporated Los Angeles County levels.

levels. Consequently, the Draft 2045 CAP's target is equivalent to the state target. The Draft 2045 CAP's 2045 target also sets unincorporated Los Angeles County on a trend to achieve California's 2045 carbon neutrality target. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2045 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2045.

The Draft 2045 CAP's 2035 target of 50 percent below 2015 levels puts unincorporated Los Angeles County on a pathway to achieve the statewide 2045 targets as stipulated in AB 1279. Although the state does not have a target for 2035, the 2045 CAP's target for 2035 of 50 percent below 2015 levels is equivalent to a 57 percent reduction below 1990 levels, which puts unincorporated Los Angeles County on a path to achieve its 2045 targets. Consequently, pursuant to CEQA Guidelines Section 15064.4(b)(3), the Draft 2045 CAP's 2035 target represents the level below which GHG emissions would not be cumulatively considerable through the year 2035.

The Draft 2045 CAP's 2045 aspirational goal of carbon neutrality aligns with the statewide 2045 target of carbon neutrality stipulated in AB 1279.

GHG emissions and global climate change represent cumulative impacts of human activities and development projects locally, regionally, statewide, nationally, and worldwide. GHG emissions from all these sources cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects around the world have contributed and will continue to contribute to global climate change and its associated environmental impacts. Given that analysis of GHG emissions is cumulative in context, the emissions targets discussed above represent the level by which the 2045 CAP's emissions are not cumulatively considerable.

A.5 Attachment A: Fehr & Peers Modeling Analysis

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| Municipality | Population | Employment | Households | VMT | | | VMT/Pop |
|----------------------|------------|------------|------------|--------------------|-----------|------------|---------|
| | | | | Passenger Vehicles | Trucks | Total | |
| Agoura Hills | 17,213 | 8,583 | 6,123 | 442,037 | 21,155 | 463,192 | 26.9 |
| Alhambra | 84,588 | 29,241 | 29,811 | 1,426,758 | 49,235 | 1,475,992 | 17.4 |
| Arcadia | 60,011 | 28,122 | 20,762 | 1,402,860 | 33,072 | 1,435,932 | 23.9 |
| Artesia | 16,729 | 5,135 | 4,594 | 278,165 | 7,187 | 285,352 | 17.1 |
| Azusa | 50,536 | 12,779 | 13,821 | 844,038 | 33,752 | 877,790 | 17.4 |
| Baldwin Park | 75,978 | 16,374 | 17,326 | 1,161,967 | 47,226 | 1,209,193 | 15.9 |
| Bell | 35,813 | 12,572 | 8,890 | 519,548 | 26,990 | 546,538 | 15.3 |
| Bell Gardens | 42,365 | 9,644 | 9,672 | 594,605 | 15,347 | 609,953 | 14.4 |
| Bellflower | 77,365 | 13,823 | 23,731 | 1,025,913 | 25,807 | 1,051,720 | 13.6 |
| Beverly Hills | 35,009 | 60,367 | 15,197 | 1,408,370 | 43,550 | 1,451,920 | 41.5 |
| Bradbury | 1,340 | 264 | 534 | 25,624 | 780 | 26,404 | 19.7 |
| Burbank | 105,798 | 112,893 | 43,456 | 3,024,950 | 158,610 | 3,183,560 | 30.1 |
| Calabasas | 19,438 | 16,703 | 7,149 | 694,145 | 38,848 | 732,992 | 37.7 |
| Carson | 94,163 | 64,283 | 26,404 | 2,243,675 | 173,475 | 2,417,150 | 25.7 |
| Cerritos | 49,668 | 31,305 | 15,613 | 1,385,832 | 67,064 | 1,452,896 | 29.3 |
| Claremont | 38,437 | 18,921 | 12,926 | 957,338 | 20,186 | 977,524 | 25.4 |
| Commerce | 12,999 | 46,091 | 3,420 | 1,009,740 | 136,907 | 1,146,646 | 88.2 |
| Compton | 98,037 | 21,398 | 23,320 | 1,314,122 | 67,404 | 1,381,526 | 14.1 |
| Covina | 52,044 | 25,978 | 17,142 | 1,254,739 | 32,648 | 1,287,387 | 24.7 |
| Cudahy | 23,574 | 2,880 | 5,563 | 249,191 | 7,918 | 257,109 | 10.9 |
| Culver City | 39,391 | 46,575 | 16,951 | 1,171,591 | 56,886 | 1,228,477 | 31.2 |
| Diamond Bar | 44,876 | 12,008 | 14,852 | 988,779 | 18,857 | 1,007,636 | 22.5 |
| Downey | 113,486 | 48,785 | 34,487 | 2,404,101 | 72,267 | 2,476,368 | 21.8 |
| Duarte | 21,762 | 11,892 | 7,207 | 553,303 | 28,342 | 581,646 | 26.7 |
| El Monte | 115,290 | 31,093 | 28,721 | 1,724,627 | 81,481 | 1,806,108 | 15.7 |
| El Segundo | 16,714 | 40,257 | 7,115 | 917,870 | 68,257 | 986,128 | 59.0 |
| Gardena | 59,723 | 30,506 | 20,847 | 1,150,528 | 63,005 | 1,213,533 | 20.3 |
| Glendale | 195,438 | 115,331 | 73,419 | 3,769,789 | 187,585 | 3,957,374 | 20.2 |
| Glendora | 55,823 | 22,939 | 18,613 | 1,371,729 | 43,717 | 1,415,446 | 25.4 |
| Hawaiian Gardens | 15,319 | 5,021 | 3,862 | 286,801 | 4,449 | 291,251 | 19.0 |
| Hawthorne | 86,630 | 26,850 | 29,138 | 1,252,872 | 70,820 | 1,323,692 | 15.3 |
| Hermosa Beach | 19,599 | 7,737 | 9,538 | 366,447 | 10,878 | 377,325 | 19.3 |
| Hidden Hills | 2,015 | 3,012 | 639 | 87,928 | 7,884 | 95,812 | 47.5 |
| Huntington Park | 61,885 | 17,136 | 15,618 | 812,802 | 23,786 | 836,589 | 13.5 |
| Industry | 12,229 | 68,185 | 3,211 | 1,721,946 | 208,909 | 1,930,855 | 157.9 |
| Inglewood | 118,098 | 32,553 | 38,962 | 1,595,692 | 72,742 | 1,668,433 | 14.1 |
| Irwindale | 1,518 | 18,305 | 400 | 501,332 | 57,613 | 558,946 | 368.2 |
| La Canada Flintridge | 19,483 | 6,657 | 6,543 | 546,334 | 10,877 | 557,211 | 28.6 |
| La Habra Heights | 7,620 | 451 | 2,543 | 109,265 | 3,851 | 113,117 | 14.8 |
| La Mirada | 49,130 | 18,358 | 14,825 | 934,397 | 57,470 | 991,867 | 20.2 |
| La Puente | 41,688 | 5,760 | 9,954 | 630,580 | 11,044 | 641,624 | 15.4 |
| La Verne | 32,173 | 12,765 | 11,563 | 745,285 | 44,406 | 789,691 | 24.5 |
| Lakewood | 79,392 | 19,324 | 26,346 | 1,430,271 | 34,439 | 1,464,710 | 18.4 |
| Lancaster | 165,579 | 48,901 | 51,326 | 2,516,475 | 123,799 | 2,640,274 | 15.9 |
| Lawndale | 32,928 | 7,122 | 9,705 | 402,349 | 10,931 | 413,280 | 12.6 |
| Lomita | 19,964 | 4,748 | 7,915 | 276,042 | 8,123 | 284,165 | 14.2 |
| Long Beach | 474,501 | 158,383 | 168,033 | 7,723,426 | 315,613 | 8,039,039 | 16.9 |
| Los Angeles | 3,928,799 | 1,799,541 | 1,382,291 | 66,561,023 | 2,774,878 | 69,335,901 | 17.6 |
| Lynwood | 71,809 | 9,528 | 15,134 | 827,176 | 20,887 | 848,063 | 11.8 |
| Malibu | 9,057 | 6,529 | 3,611 | 363,285 | 14,317 | 377,602 | 41.7 |
| Manhattan Beach | 35,369 | 18,614 | 14,066 | 844,760 | 23,203 | 867,963 | 24.5 |
| Maywood | 27,592 | 3,446 | 6,581 | 276,006 | 10,740 | 286,747 | 10.4 |
| Monrovia | 37,757 | 19,704 | 14,130 | 865,370 | 35,419 | 900,788 | 23.9 |
| Montebello | 66,151 | 29,107 | 20,270 | 1,439,492 | 67,803 | 1,507,295 | 22.8 |
| Monterey Park | 62,408 | 33,848 | 20,660 | 1,274,432 | 44,961 | 1,319,393 | 21.1 |
| Norwalk | 106,788 | 25,151 | 27,320 | 1,631,482 | 42,400 | 1,673,881 | 15.7 |

| Municipality | Population | Employment | Households | VMT | | | VMT/Pop |
|-----------------------|------------|------------|------------|--------------------|---------|------------|---------|
| | | | | Passenger Vehicles | Trucks | Total | |
| Palmdale | 160,985 | 30,420 | 45,569 | 3,006,155 | 95,785 | 3,101,940 | 19.3 |
| Palos Verdes Estates | 13,535 | 2,450 | 5,066 | 258,942 | 4,833 | 263,776 | 19.5 |
| Paramount | 54,752 | 20,332 | 14,020 | 914,234 | 50,357 | 964,590 | 17.6 |
| Pasadena | 142,823 | 115,730 | 59,821 | 3,799,017 | 131,670 | 3,930,688 | 27.5 |
| Pico Rivera | 65,424 | 19,572 | 17,208 | 1,138,261 | 52,840 | 1,191,102 | 18.2 |
| Pomona | 153,433 | 55,752 | 40,206 | 3,034,480 | 111,384 | 3,145,864 | 20.5 |
| Rancho Palos Verdes | 44,215 | 10,971 | 16,501 | 914,209 | 20,610 | 934,820 | 21.1 |
| Redondo Beach | 68,254 | 25,808 | 29,818 | 1,221,602 | 52,735 | 1,274,337 | 18.7 |
| Rolling Hills | 1,955 | 102 | 695 | 28,278 | 354 | 28,632 | 14.6 |
| Rolling Hills Estates | 8,559 | 1,402 | 3,173 | 145,855 | 2,584 | 148,439 | 17.3 |
| Rosemead | 52,104 | 12,011 | 13,715 | 761,520 | 22,643 | 784,164 | 15.0 |
| San Dimas | 35,199 | 13,274 | 12,545 | 798,683 | 25,934 | 824,618 | 23.4 |
| San Fernando | 24,431 | 11,381 | 6,233 | 427,654 | 27,562 | 455,216 | 18.6 |
| San Gabriel | 40,632 | 13,909 | 13,024 | 704,116 | 20,459 | 724,575 | 17.8 |
| San Marino | 13,256 | 3,752 | 4,343 | 217,640 | 4,489 | 222,129 | 16.8 |
| Santa Clarita | 204,149 | 76,637 | 68,935 | 4,661,848 | 231,945 | 4,893,793 | 24.0 |
| Santa Fe Springs | 18,679 | 54,591 | 5,420 | 1,269,807 | 166,229 | 1,436,036 | 76.9 |
| Santa Monica | 93,016 | 92,329 | 48,049 | 2,496,620 | 98,913 | 2,595,533 | 27.9 |
| Sierra Madre | 11,021 | 1,934 | 4,865 | 185,011 | 4,835 | 189,846 | 17.2 |
| Signal Hill | 11,515 | 15,283 | 4,330 | 375,094 | 41,156 | 416,249 | 36.1 |
| South El Monte | 18,290 | 12,629 | 4,061 | 414,962 | 33,469 | 448,432 | 24.5 |
| South Gate | 97,521 | 21,195 | 24,333 | 1,227,316 | 60,921 | 1,288,237 | 13.2 |
| South Pasadena | 25,892 | 9,576 | 10,549 | 429,625 | 9,620 | 439,244 | 17.0 |
| Temple City | 35,924 | 7,482 | 11,805 | 551,337 | 21,440 | 572,777 | 15.9 |
| Torrance | 147,860 | 106,177 | 56,970 | 3,525,612 | 179,104 | 3,704,715 | 25.1 |
| Unincorporated Areas | 1,067,225 | 257,395 | 313,836 | 18,343,532 | 669,811 | 19,013,343 | 17.8 |
| Vernon | 188 | 43,802 | 52 | 704,600 | 165,303 | 869,903 | 4627.1 |
| Walnut | 30,770 | 8,792 | 9,197 | 756,304 | 17,412 | 773,716 | 25.1 |
| West Covina | 110,059 | 29,982 | 32,602 | 2,075,474 | 50,668 | 2,126,142 | 19.3 |
| West Hollywood | 36,432 | 30,913 | 23,705 | 847,730 | 42,279 | 890,009 | 24.4 |
| Westlake Village | 8,079 | 14,679 | 3,206 | 431,439 | 13,208 | 444,647 | 55.0 |
| Whittier | 84,869 | 26,964 | 28,043 | 1,622,868 | 36,012 | 1,658,880 | 19.5 |

| Municipality | Population | Employment | Households | VMT | | | VMT/Pop |
|----------------------|------------|------------|------------|--------------------|-----------|------------|---------|
| | | | | Passenger Vehicles | Trucks | Total | |
| Agoura Hills | 18,843 | 10,013 | 6,789 | 429,483 | 23,487 | 452,970 | 24.0 |
| Alhambra | 94,325 | 34,862 | 34,157 | 1,424,403 | 59,301 | 1,483,704 | 15.7 |
| Arcadia | 67,702 | 34,344 | 24,029 | 1,412,733 | 44,908 | 1,457,641 | 21.5 |
| Artesia | 17,821 | 6,319 | 4,949 | 279,054 | 8,562 | 287,616 | 16.1 |
| Azusa | 56,782 | 14,927 | 15,975 | 865,832 | 35,691 | 901,523 | 15.9 |
| Baldwin Park | 81,870 | 18,967 | 18,896 | 1,145,143 | 51,499 | 1,196,643 | 14.6 |
| Bell | 36,809 | 14,741 | 9,158 | 510,334 | 28,844 | 539,178 | 14.6 |
| Bell Gardens | 43,798 | 11,199 | 10,017 | 572,591 | 17,617 | 590,207 | 13.5 |
| Bellflower | 86,035 | 16,906 | 25,901 | 1,046,489 | 30,143 | 1,076,633 | 12.5 |
| Beverly Hills | 36,311 | 74,000 | 15,922 | 1,448,679 | 55,655 | 1,504,333 | 41.4 |
| Bradbury | 1,497 | 291 | 603 | 24,093 | 810 | 24,903 | 16.6 |
| Burbank | 113,792 | 134,327 | 48,403 | 3,128,603 | 186,001 | 3,314,603 | 29.1 |
| Calabasas | 21,158 | 19,993 | 7,922 | 731,012 | 49,170 | 780,182 | 36.9 |
| Carson | 106,492 | 71,299 | 30,522 | 2,233,679 | 189,257 | 2,422,936 | 22.8 |
| Cerritos | 51,192 | 35,991 | 16,154 | 1,367,772 | 61,584 | 1,429,356 | 27.9 |
| Claremont | 41,944 | 22,818 | 14,258 | 939,103 | 25,745 | 964,848 | 23.0 |
| Commerce | 13,661 | 51,552 | 3,619 | 1,037,368 | 154,751 | 1,192,119 | 87.3 |
| Compton | 101,341 | 24,190 | 24,221 | 1,256,123 | 73,458 | 1,329,581 | 13.1 |
| Covina | 55,197 | 31,016 | 18,435 | 1,222,380 | 39,356 | 1,261,735 | 22.9 |
| Cudahy | 26,820 | 3,492 | 6,550 | 262,905 | 8,966 | 271,871 | 10.1 |
| Culver City | 41,053 | 55,554 | 17,808 | 1,177,622 | 64,155 | 1,241,776 | 30.2 |
| Diamond Bar | 50,660 | 14,181 | 17,148 | 1,002,761 | 23,436 | 1,026,197 | 20.3 |
| Downey | 120,828 | 59,487 | 37,050 | 2,417,421 | 85,711 | 2,503,132 | 20.7 |
| Duarte | 24,184 | 13,470 | 8,155 | 534,578 | 32,058 | 566,636 | 23.4 |
| El Monte | 132,546 | 35,233 | 33,703 | 1,782,138 | 89,121 | 1,871,259 | 14.1 |
| El Segundo | 17,192 | 49,472 | 7,336 | 992,571 | 76,739 | 1,069,311 | 62.2 |
| Gardena | 67,655 | 35,057 | 23,977 | 1,147,827 | 69,044 | 1,216,871 | 18.0 |
| Glendale | 209,362 | 135,952 | 80,175 | 3,769,993 | 210,872 | 3,980,865 | 19.0 |
| Glendora | 59,158 | 27,152 | 19,823 | 1,320,622 | 59,191 | 1,379,813 | 23.3 |
| Hawaiian Gardens | 16,545 | 6,189 | 4,230 | 286,079 | 5,859 | 291,938 | 17.6 |
| Hawthorne | 93,487 | 30,084 | 31,758 | 1,208,701 | 74,447 | 1,283,148 | 13.7 |
| Hermosa Beach | 20,404 | 8,989 | 9,950 | 349,857 | 12,960 | 362,817 | 17.8 |
| Hidden Hills | 2,168 | 3,092 | 704 | 79,683 | 8,629 | 88,312 | 40.7 |
| Huntington Park | 69,079 | 19,619 | 17,799 | 812,763 | 27,022 | 839,785 | 12.2 |
| Industry | 13,602 | 76,254 | 3,732 | 1,749,048 | 221,271 | 1,970,318 | 144.9 |
| Inglewood | 120,634 | 38,332 | 40,299 | 1,484,140 | 82,883 | 1,567,023 | 13.0 |
| Irwindale | 1,971 | 22,724 | 526 | 536,551 | 62,930 | 599,481 | 304.2 |
| La Canada Flintridge | 20,471 | 8,854 | 6,912 | 554,504 | 15,083 | 569,588 | 27.8 |
| La Habra Heights | 8,601 | 509 | 3,001 | 113,163 | 4,438 | 117,601 | 13.7 |
| La Mirada | 51,814 | 20,961 | 15,703 | 929,420 | 62,036 | 991,456 | 19.1 |
| La Puente | 49,420 | 6,378 | 12,120 | 660,968 | 12,978 | 673,946 | 13.6 |
| La Verne | 36,233 | 14,172 | 13,396 | 733,777 | 47,338 | 781,115 | 21.6 |
| Lakewood | 82,578 | 22,202 | 27,587 | 1,359,133 | 39,313 | 1,398,447 | 16.9 |
| Lancaster | 208,045 | 57,752 | 65,854 | 2,873,028 | 152,213 | 3,025,241 | 14.5 |
| Lawndale | 36,366 | 8,243 | 10,914 | 399,012 | 12,371 | 411,383 | 11.3 |
| Lomita | 20,619 | 5,747 | 8,179 | 258,723 | 9,227 | 267,951 | 13.0 |
| Long Beach | 535,550 | 190,416 | 194,849 | 7,808,613 | 368,333 | 8,176,945 | 15.3 |
| Los Angeles | 4,597,446 | 2,100,234 | 1,671,186 | 68,033,029 | 3,399,642 | 71,432,671 | 15.5 |
| Lynwood | 76,393 | 11,092 | 16,273 | 816,634 | 22,762 | 839,396 | 11.0 |
| Malibu | 10,271 | 7,843 | 4,256 | 353,888 | 19,257 | 373,144 | 36.3 |
| Manhattan Beach | 36,913 | 22,048 | 14,711 | 824,883 | 28,341 | 853,224 | 23.1 |
| Maywood | 28,706 | 3,877 | 6,873 | 261,738 | 11,983 | 273,721 | 9.5 |
| Monrovia | 40,645 | 23,092 | 15,405 | 835,732 | 39,339 | 875,071 | 21.5 |
| Montebello | 69,172 | 33,753 | 21,485 | 1,404,288 | 74,113 | 1,478,401 | 21.4 |
| Monterey Park | 67,655 | 38,758 | 22,557 | 1,284,047 | 51,171 | 1,335,218 | 19.7 |
| Norwalk | 110,999 | 29,974 | 28,545 | 1,585,666 | 49,402 | 1,635,068 | 14.7 |

| Municipality | Population | Employment | Households | VMT | | | VMT/Pop |
|-----------------------|------------|------------|------------|--------------------|---------|------------|---------|
| | | | | Passenger Vehicles | Trucks | Total | |
| Palmdale | 207,911 | 34,650 | 62,801 | 3,331,137 | 108,917 | 3,440,054 | 16.5 |
| Palos Verdes Estates | 13,853 | 2,819 | 5,198 | 241,274 | 5,564 | 246,839 | 17.8 |
| Paramount | 57,745 | 23,852 | 14,798 | 914,646 | 53,564 | 968,209 | 16.8 |
| Pasadena | 157,196 | 139,727 | 67,219 | 3,842,814 | 158,076 | 4,000,890 | 25.5 |
| Pico Rivera | 72,430 | 21,658 | 19,540 | 1,130,890 | 56,745 | 1,187,635 | 16.4 |
| Pomona | 184,131 | 67,208 | 49,459 | 3,218,313 | 130,687 | 3,349,000 | 18.2 |
| Rancho Palos Verdes | 45,485 | 12,962 | 17,022 | 857,399 | 24,300 | 881,699 | 19.4 |
| Redondo Beach | 73,692 | 29,604 | 32,712 | 1,151,727 | 62,629 | 1,214,356 | 16.5 |
| Rolling Hills | 2,063 | 120 | 740 | 26,716 | 404 | 27,120 | 13.1 |
| Rolling Hills Estates | 9,209 | 1,985 | 3,478 | 146,428 | 3,522 | 149,949 | 16.3 |
| Rosemead | 56,890 | 14,158 | 15,231 | 761,958 | 25,191 | 787,149 | 13.8 |
| San Dimas | 37,753 | 15,707 | 13,701 | 787,368 | 28,997 | 816,365 | 21.6 |
| San Fernando | 26,550 | 13,042 | 6,838 | 414,108 | 29,461 | 443,570 | 16.7 |
| San Gabriel | 45,687 | 16,717 | 15,030 | 708,603 | 25,418 | 734,021 | 16.1 |
| San Marino | 13,606 | 4,594 | 4,469 | 214,251 | 5,627 | 219,878 | 16.2 |
| Santa Clarita | 249,170 | 87,689 | 89,029 | 4,848,490 | 251,588 | 5,100,078 | 20.5 |
| Santa Fe Springs | 20,637 | 60,974 | 6,179 | 1,346,679 | 173,328 | 1,520,006 | 73.7 |
| Santa Monica | 99,526 | 114,949 | 53,124 | 2,556,388 | 136,817 | 2,693,204 | 27.1 |
| Sierra Madre | 11,664 | 2,396 | 5,199 | 181,576 | 5,660 | 187,237 | 16.1 |
| Signal Hill | 13,219 | 18,018 | 5,045 | 380,367 | 44,870 | 425,237 | 32.2 |
| South El Monte | 20,021 | 13,924 | 4,525 | 418,029 | 35,018 | 453,048 | 22.6 |
| South Gate | 106,328 | 23,278 | 26,790 | 1,219,112 | 64,414 | 1,283,526 | 12.1 |
| South Pasadena | 27,002 | 11,748 | 11,054 | 431,178 | 12,360 | 443,538 | 16.4 |
| Temple City | 39,587 | 8,911 | 13,263 | 551,512 | 24,082 | 575,593 | 14.5 |
| Torrance | 158,574 | 124,986 | 61,692 | 3,508,458 | 200,960 | 3,709,419 | 23.4 |
| Unincorporated Areas | 1,248,903 | 307,997 | 385,786 | 18,914,519 | 835,013 | 19,749,532 | 17.8 |
| Vernon | 117 | 46,752 | 30 | 805,092 | 165,918 | 971,010 | 8299.2 |
| Walnut | 33,428 | 10,293 | 10,252 | 751,165 | 19,760 | 770,925 | 23.1 |
| West Covina | 118,074 | 36,540 | 35,292 | 2,031,260 | 61,598 | 2,092,858 | 17.7 |
| West Hollywood | 37,697 | 35,544 | 24,496 | 774,107 | 49,523 | 823,629 | 21.8 |
| Westlake Village | 8,550 | 17,563 | 3,410 | 440,548 | 17,183 | 457,732 | 53.5 |
| Whittier | 90,350 | 33,390 | 30,175 | 1,631,644 | 45,619 | 1,677,263 | 18.6 |

APPENDIX B

Emissions Forecasting and Reduction Methods

Purpose

This appendix describes the greenhouse gas (GHG) accounting and projection methods for the Adjusted Business-as-Usual (BAU) forecasts for 2030, 2035, and 2045, and the methods for quantifying GHG emissions reductions for the measures and actions listed in the *2045 Los Angeles County Climate Action Plan (2045 CAP)*.

Section B.1: 2018–2045 Adjusted Business-as-Usual Forecasts

This section describes the approach for modeling an Adjusted BAU scenario that projects future emissions based on current population and regional growth trends; land use growth patterns; and implementation of federal, state, and County of Los Angeles (County) regulations and policies, including renewable-energy targets pursuant to the California Renewables Portfolio Standard (RPS) and Senate Bill (SB) 100, Title 24 Building Energy Efficiency updates, and the Advanced Clean Cars regulations and Pavley vehicle efficiency standards.

Section B.2: Greenhouse Gas Reduction Measures and Actions

This section describes the calculation methods for estimating local GHG emissions reductions for the 2045 CAP measures and actions. These emissions reductions occur beyond federal, state, and County regulations and policies accounted for in the Adjusted BAU forecast. The quantified measures and actions include:

- ES1: Develop a Sunset Strategy for All Oil and Gas Operations
- ES2: Procure Zero-Carbon Electricity
- ES3: Increase Renewable Energy Production
- E1: Transition Existing Buildings to All-Electric
- E2: Standardize All-Electric New Development

- E4: Improve Energy Efficiency of Existing Buildings
- E6: Reduce Indoor and Outdoor Water Consumption
- T1: Increase Density Near High-Quality Transit Areas
- T2: Develop Land Use Plans Addressing Jobs-Housing Balance and Increase Mixed Use
- T3: Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips
- T4: Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation
- T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales
- T7: Electrify County Fleet Vehicles
- T8: Accelerate Freight Decarbonization
- T9: Expand Use of Zero-Emission Technologies for Off-Road Vehicles and Equipment
- W1: Institutionalize Sustainable Waste Systems and Practices
- A1: Conserve Agricultural and Working Lands, Forest Lands, and Wildlands
- A3: Expand Unincorporated Los Angeles County's Tree Canopy and Green Spaces

B.1 2018–2045 Adjusted Business-as-Usual Forecasts

Like the standard BAU forecast, the Adjusted BAU forecast provides an estimate of future emissions levels based on the continuation of existing trends in demographic growth (such as population and housing), activity or resource consumption (such as electricity use), technology changes, and regulation. Unlike the BAU forecast, the Adjusted BAU forecast accounts for expected outcomes of federal, state, and local measures. Specifically, the Adjusted BAU forecast includes the following programs and policies:

1. California's RPS program and SB 100 targets for renewable energy.
2. Updates to Title 24 standards.
3. Implementation of the Advanced Clean Cars regulations and Pavley standards.

These three adjustments are explained in the following sections.

Renewables Portfolio Standard and Senate Bill 100

The Clean Energy and Pollution Reduction Act of 2015, or SB 350 (Chapter 547, Statutes of 2015) was approved by then-Governor Jerry Brown on October 7, 2015. SB 350 increased the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased from 33 percent to 50 percent by December 31, 2030. On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the RPS goals that were established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. The updated RPS goals are considered achievable, because many California energy providers are already meeting or exceeding the RPS goals established by SB 350. The Adjusted BAU forecasts accounts for these renewable energy targets, as discussed below.

Electricity Emission Factors under the Renewables Portfolio Standard

To account for California’s RPS targets under SB 100 in the Adjusted BAU forecast, the GHG emission factors for electricity consumption were adjusted. These emissions factors represent indirect GHG emissions generated at power plants and are applied to electricity consumption in unincorporated Los Angeles County (see Appendix A for discussion). The RPS has the effect of lowering indirect emissions associated with electricity consumption because it mandates increasing percentages of renewable sources of power supplied by electricity utilities in future years. The RPS requires 60 percent eligible renewables by 2030 and 100 percent RPS-eligible renewable resources by 2045.¹

The two utilities supplying electricity to unincorporated Los Angeles County are Southern California Edison (SCE) and the Clean Power Alliance (CPA). To adjust for the RPS in future years, indirect electricity emission factors reported by SCE and CPA along with the energy power mix were collected for the years 2015–2020. SCE reports its emission factors in their annual sustainability reports and has values for 2015–2019. CPA reports its emission factors to the Climate Registry and has values for 2018–2020. The California Energy Commission (CEC) reports power mix data in Power Content Labels; these are available through 2020 for both SCE and CPA.²

Based on data reported for 2016–2020, a composite “non-RPS” emission intensity factor was generated for each year. This factor is calculated based on the reported total emission factor and the non-RPS power mix. For example, SCE’s total reported emission factor in 2019 is 396.8 pounds (lb) of carbon dioxide equivalent (CO₂e) per megawatt-hour (MWh) for a non-RPS power mix of 65 percent; the “non-RPS” emission intensity factor is therefore 612.4 lb CO₂e/MWh. Then, for each forecast year (2030, 2035, and 2045), an emission factor for total delivered electricity was calculated based on these composite “non-RPS” emission intensity factors for each reported year and the projected RPS requirement for eligible renewables for each year. For example, a 60 percent eligible renewable mix (required by 2030) applied to the “non-RPS” emission intensity factor of 612.4 lb CO₂e/MWh results in a total emission factor of 245 lb CO₂e/MWh.

Table B-1 presents the electricity power mix values reported (2016–2020) and forecasted (2030, 2035, 2045) for SCE and CPA, incorporating the RPS. **Table B-2** presents the electricity emission factors reported for SCE and CPA for 2016–2020 along with the Adjusted BAU forecast for 2030, 2035, and 2045, incorporating the RPS.

¹ RPS-eligible resources include solar, wind, geothermal, small hydroelectric, or biopower facilities that are located within the Western Electricity Coordinating Council (WECC) region, which encompasses 14 Western U.S. states and portions of Canada and Mexico. The majority of RPS-eligible electricity currently comes from solar and wind. Large hydroelectric dams and nuclear facilities, two major sources of carbon-free power, are not RPS-eligible.

² California Energy Commission. 2019. 2018 Power Content Label. July 2019. Available: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Southern_California_Edison.pdf. Accessed January 2021.

Table B-1: SCE and CPA Electricity Power Mix

| ELECTRICITY POWER MIX | REPORTED | | | | | FORECASTED | | |
|---------------------------|----------|------|------|------|------|------------|------|------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2030 | 2035 | 2045 |
| SCE | | | | | | | | |
| Eligible Renewables | 28% | 32% | 36% | 35% | n/a | 60% | 73% | 100% |
| Nuclear & Hydroelectric | 25% | 28% | 21% | 24% | n/a | n/a | n/a | n/a |
| Natural Gas & Unspecified | 60% | 54% | 54% | 49% | n/a | n/a | n/a | n/a |
| CPA Lean Rate | | | | | | | | |
| Eligible Renewables | n/a | n/a | 65% | 36% | 41% | 60% | 73% | 100% |
| Nuclear & Hydroelectric | n/a | n/a | 24% | 1% | 5% | n/a | n/a | n/a |
| Natural Gas & Unspecified | n/a | n/a | 11% | 63% | 55% | n/a | n/a | n/a |
| CPA Clean Rate | | | | | | | | |
| Eligible Renewables | n/a | n/a | 61% | 51% | 50% | 60% | 73% | 100% |
| Nuclear & Hydroelectric | n/a | n/a | 26% | 14% | 9% | n/a | n/a | n/a |
| Natural Gas & Unspecified | n/a | n/a | 13% | 36% | 41% | n/a | n/a | n/a |

NOTES:
 Abbreviations: CPA = Clean Power Alliance; n/a = data not available or not applicable; SCE = Southern California Edison.
 Reported values are shown for 2016–2020. Estimated (forecasted) values based on Renewables Portfolio Standard are shown for 2030, 2035, and 2045.

Table B-2: SCE and CPA Electricity Emission Factors under The Renewables Portfolio Standard

| UTILITY AND CATEGORY OF ELECTRICITY SUPPLY | EMISSION FACTORS (LB CO ₂ E/MWH) | | | | | | | |
|--|---|-------|-------|-------|--------|-------|-------|------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2030 | 2035 | 2045 |
| SCE | | | | | | | | |
| Non-RPS Electricity | 734.7 | 807.4 | 801.6 | 606.5 | n/a | 738.6 | 738.6 | n/a |
| Total Delivered Electricity | 529 | 549 | 513.0 | 393.0 | n/a | 295.5 | 197.0 | 0.0 |
| CPA Lean | | | | | | | | |
| Non-RPS Electricity | n/a | n/a | 30.3 | 590.0 | 1029.6 | 809.8 | 809.8 | n/a |
| Total Delivered Electricity | n/a | n/a | 10.6 | 377.6 | 608.5 | 323.9 | 215.9 | 0.0 |
| CPA Clean | | | | | | | | |
| Non-RPS Electricity | n/a | n/a | 25.1 | 342.2 | 685.7 | 513.9 | 513.9 | n/a |
| Total Delivered Electricity | n/a | n/a | 9.8 | 169.4 | 342.2 | 205.6 | 137.0 | 0.0 |

NOTES:
 Abbreviations: CO₂e = carbon dioxide equivalent; lb = pounds; MWh = megawatt-hour; n/a = data not available or not applicable.
 Reported values are shown for 2016–2020. Estimated (forecasted) values based on RPS are shown for 2030, 2035, and 2045.

Data Sources:

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLLogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLLogin.aspx)
- Power Content Labels
Link: <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label>
- California RPS Program Overview
Link: https://www.cpuc.ca.gov/RPS_Overview/
- SB 100
Link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

Residential Buildings

Like the BAU Forecast, energy consumption in residential buildings is projected based on building footprint projections for residential stock in unincorporated Los Angeles County (see Appendix A). As discussed above, the electricity emission factors for electricity supplied by SCE are based on SCE’s historical power mix (2015–2019) and RPS targets.³ To account for the RPS and SB 100, SCE emission factors were applied to total residential electricity consumption for 2018, 2030, 2035, and 2045. As reported in Table B-2 above, SCE emission factors were estimated to be 513 lb CO₂e/MWh in 2018, 295.5 lb CO₂e/MWh in 2030, 197 lb CO₂e/MWh in 2035, and 0 lb CO₂e/MWh in 2045.

Beginning in 2019, residential customers in unincorporated Los Angeles County were automatically enrolled in the Clean Power Alliance’s (CPA) “Clean” electricity rate option. While participation data for 2019 were unavailable when the 2018 inventory was developed, a July 2021 member status report indicated a 96 percent participation rate for all residential customers in unincorporated Los Angeles County in 2021.⁴ Under the Clean rate option in 2019, residential customers received 61 percent of their electricity from eligible renewable sources via the CPA, 26 percent from carbon-free sources like hydropower, and 13 percent from unspecified fossil-fuel sources like natural gas and coal (see Table B-1 above). The remaining 4 percent of residential customers were enrolled in CPA’s “Lean” electricity rate option. Under the Lean rate option in 2019, residential customers received 65 percent of their electricity from eligible renewable sources via the CPA, 24 percent from carbon-free sources like hydropower, and 11 percent from unspecified fossil-fuel sources like natural gas and coal (see Table B-1 above).

GHG emissions from CPA-provided electricity are calculated using CPA data including electricity consumption, emission factors, and power mix.⁵ As reported in Table B-2 above, CPA’s Lean emission rates are estimated to be 10.6 lb CO₂e/MWh in 2018, 323.9 lb CO₂e/MWh in 2030, 215.9 lb CO₂e/MWh in 2035, and 0 lb CO₂e/MWh in 2045.⁶ CPA’s Clean emission rates are estimated to be 9.8 lb CO₂e/MWh in 2018, 205.6 lb CO₂e/MWh in 2030, 137 lb CO₂e/MWh in 2035, and 0 lb

³ California Energy Commission. 2019. 2018 Power Content Label. July 2019. Available: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Southern_California_Edison.pdf. Accessed January 2021.

⁴ Clean Power Alliance. 2021. *Member Status Report: Los Angeles County*. July 28, 2021.

⁵ California Energy Commission. 2019. 2018 CPA Power Content Label. July 2019. Available: https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Clean_Power_Alliance.pdf. Accessed January 2021.

⁶ The Climate Registry. 2020. Utility-Specific Emission Factors. Available: <https://www.theclimateregistry.org/our-members/cris-public-reports/>. Accessed January 2021.

CO₂e/MWh in 2045.⁷ CPA emission factors were applied to total residential electricity consumption in 2018, 2030, 2035, and 2045 and emissions for interim years were linearly interpolated.

For emissions associated with natural gas consumption, emission factors are held constant from 2018.⁸ RPS and SB 100 do not affect natural gas usage or emissions, and there are no federal, state, or local policies that would result in changes to the natural gas emission factors in the Adjusted BAU forecast.

Data Sources:

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- Power Content Labels
Link: <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label>
- California RPS Program Overview
Link: https://www.cpuc.ca.gov/RPS_Overview/
- SB 100
Link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

Commercial and Institutional Buildings

Like the BAU Forecast, energy consumption in commercial, institutional, and agricultural buildings is forecasted based on building footprint projections for nonresidential building stock in unincorporated Los Angeles County (see Appendix A). In June 2018, nonresidential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power option, with less than 5 percent of customers opting out; the year-end CPA participation rate is held constant with the remaining customers continuing to receive electricity from SCE. The emission factors for CPA are based on historical power mix (2018–2020) and California's RPS targets, as discussed above and presented in Table B-1.⁹ Emission factors for SCE and CPA are described under *Electricity Emission Factors under the Renewables Portfolio Standard*, above. Natural gas emission factors are held constant from 2018.

Data Sources:

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- Power Content Labels
Link: <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label>
- California RPS Program Overview
Link: https://www.cpuc.ca.gov/RPS_Overview/
- SB 100
Link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

⁷ The Climate Registry. 2020. Utility-Specific Emission Factors. Available: <https://www.theclimateregistry.org/our-members/cris-public-reports/>. Accessed January 2021.

⁸ The Climate Registry. 2018. Default Emission Factors. May 1, 2018. Available: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climite-Registry-2018-Default-Emission-Factor-Documnet.pdf>. Accessed January 2021.

⁹ California Public Utilities Commission. 2018. Renewables Portfolio Standards (RPS). Available: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-program-overview>. Accessed January 2021.

Manufacturing and Industrial Buildings

ELECTRICITY AND NATURAL GAS

Like the BAU Forecast, energy consumption in manufacturing and industrial buildings are forecasted based on building footprint projections for nonresidential stock in unincorporated Los Angeles County (see Appendix A).¹⁰ As discussed above, beginning in 2018, nonresidential customers in unincorporated Los Angeles County were enrolled in CPA's Clean Power rate option (50 percent eligible renewable), with less than 5 percent of customers opting out; the year-end CPA participation rate is held constant with the remaining customers continuing to receive electricity from SCE. The emission factors for CPA are based on historical power mix (2018–2020) and California's RPS targets, as discussed above and presented in Table B-1.¹¹ Emission factors for SCE and CPA are the same as described under *Electricity Emission Factors under the Renewables Portfolio Standard*, above.

California Building and Energy Efficiency Standards (Title 24)

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods (CEC, 2016). The current Title 24, Part 6 standards (2019 standards) were made effective on January 1, 2020. The new Title 24, Part 6 standards (2022 standards) were adopted by the CEC in August 2021 and will be made effective on January 1, 2023. The Adjusted BAU forecasts accounts for these updates to Title 24, as discussed below.

Residential Buildings

Under the Adjusted BAU scenario, energy use in residential buildings was adjusted to reflect the effects of Title 24 standards. Title 24 Building Efficiency Standards are updated every three years by the California Energy Commission. The model uses approximate increased energy efficiency percentages for the 2019 Title 24 standards¹² implemented in 2020, and the 2022 standards to be implemented in 2023.¹³ The 2019 percentages are based on CEC estimates for residential and nonresidential buildings and assume that the solar photovoltaic (PV) requirement is met. The 2022 percentages were calculated based on CEC's draft environmental impact report for the

¹⁰ UCLA Institute of Environmental Studies. 2018. Analysis of County of Los Angeles Parcel Assessor's Data.

¹¹ California Public Utilities Commission. 2018. Renewables Portfolio Standards (RPS). Available: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-program-overview>. Accessed January 2021.

¹² California Energy Commission. 2020. 2019 Building Energy Efficiency Standards FAQ. Available: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed December 2021.

¹³ California Energy Commission. 2021. 2022 Building Energy Efficiency Standards Summary. Available: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf. Accessed December 2021.

2022 standards.¹⁴ This document outlined the changes in building energy use from the 2019 to 2022 standards on a project-by-project basis. Weighted averages were taken to generate efficiency change values for single-family and multifamily residential buildings for both electricity and natural gas. These efficiency changes are applied to 2019 energy use intensity (EUI) values to generate 2022 EUI values for each building type, which are then applied to the square footage of new construction. In the model, the adjusted EUI is also applied to 15 percent of the total square footage of existing buildings to account for the approximately 15 percent of buildings that are retrofitted each year. Because Title 24 is updated on a three-year cycle, the 2022 changes in energy efficiency are applied every three years in the model.

Data Sources:

- Title 24 2019 Update
Link: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
- Title 24 2022 Update
Link: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf
- Title 24 2022 Environmental Impact Report
Link: <https://www.energy.ca.gov/publications/2021/environmental-impact-report-amendments-building-efficiency-standards-2022-energy>

Commercial and Institutional Buildings

Under the Adjusted BAU scenario, energy use in commercial, institutional, and agricultural buildings was adjusted to reflect the effects of Title 24 standards. The methods for adjusting energy use under new Title 24 standards are the same as described for *Residential Buildings*, above.

Data Sources:

- Title 24 2019 Update
Link: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
- Title 24 2022 Update
Link: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf
- Title 24 2022 Environmental Impact Report
Link: <https://files.ceqanet.opr.ca.gov/268487-2/attachment/MNZKECIHPRRVXPxfeMxJjIoL-VXe6AFxDecdnxi8c5vzAkZWPPhj5GPnAarnDp4zd7reUQfLY0fv2AI70>

Manufacturing and Industrial Buildings

Under the Adjusted BAU scenario, energy use in manufacturing and construction buildings was adjusted to reflect the effects of Title 24 standards. The methods for adjusting energy use under new Title 24 standards are the same as described for *Residential Buildings*, above. Title 24 Building Efficiency Standards are updated every three years by the California Energy Commission.

¹⁴ California Energy Commission. 2021. Draft Environmental Impact Report: Amendments to the Building Energy Efficiency Standards (2022 Energy Code). Available: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>. Accessed December 2021.

Data Sources:

- Title 24 2019 Update
Link: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
- Title 24 2022 Update
Link: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf
- Title 24 2022 Environmental Impact Report
Link: <https://files.ceqanet.opr.ca.gov/268487-2/attachment/MNZKECIHPRRVXPxfeMxJjIoL-VXe6AFxDecdnxi8c5vzAkZWPhhj5GPnAarnDp4zd7reUQfLY0fV2AI70>

Advanced Clean Cars Regulations and Pavley Vehicle Efficiency Standards

In 2002, Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 requires that the California Air Resources Board (CARB) develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.” To meet the requirements of AB 1493, in 2004 CARB approved amendments to the California Code of Regulations, adding GHG emissions standards to California’s existing standards for motor vehicle emissions. All mobile sources are required to comply with these regulations as they are phased in from 2009 through 2016. These regulations are known as the “Pavley standards” (named for the bill’s author, State Senator Fran Pavley).

In January 2012, pursuant to Recommended Measures T-1 and T-4 of the Original Scoping Plan, CARB approved the Advanced Clean Cars Program, an emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions. The program also requires car manufacturers to offer for sale an increasing number of zero-emission vehicles (ZEVs) each year, including battery electric, fuel cell, and plug-in hybrid electric vehicles. In December 2012, CARB adopted regulations allowing car manufacturers to comply with California’s GHG emissions requirements for model years 2017–2025 through compliance with the EPA GHG requirements for those same model years.¹⁵

The Adjusted BAU forecasts accounts for these vehicle fleet efficiency standards, as discussed below.

On-road Transportation: Passenger Vehicles and Trucks

Like the BAU forecast, vehicle miles traveled (VMT) from passenger vehicles and trucks were estimated using SCAG’s 2016 Regional Travel Demand Model, which forecasts VMT for the year 2040 (see Appendix A). GHG emissions under the Advanced Clean Cars regulations and Pavley standards in unincorporated Los Angeles County are calculated using VMT and corresponding weighted emission factors by vehicle type (passenger vehicles and trucks)¹⁶ for years 2018, 2030,

¹⁵ Advanced Clean Cars Program information available online: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>. Accessed on February 7, 2020.

¹⁶ Passenger vehicles correspond to EMFAC categories LDA, LDT1, LDT2, MCY, and MD. Trucks correspond to EMFAC categories LHDT1, LHDT2, MHDT, HHDT, and MH.

2035, and 2045 from the EMFAC2021 model.¹⁷ Interim year emissions were interpolated for 2019 through 2029, 2031 through 2034, and 2036 through 2044.

Data Sources:

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- SCAG Regional Travel Demand Model
Provided by SCAG

On-road Transportation: Buses

Fuel consumption from Metro buses for years 2019 through 2045 was calculated using fuel consumption and VMT data from the EMFAC2021 model. The EMFAC2021 model was run for years 2018, 2030, 2035, and 2045 and the fuel efficiency (miles per gallon, miles per gallon equivalent, or kWh/mile) were calculated.¹⁸ An efficiency factor for diesel, gasoline, compressed natural gas, and electricity was then developed by dividing the 2030, 2035, and 2045 fuel efficiency by the baseline fuel efficiency in 2018. The efficiency factor was then applied to the 2018 fuel consumption by fuel type to determine the project fuel consumption for years 2030, 2035, and 2045. Emission factors for gasoline, diesel and compressed natural (CNG) gas-powered buses are taken from EMFAC2021 database to calculate GHG emissions. Electricity emissions were calculated using CPA Clean option emission factors for the corresponding year. Emissions for interim years were interpolated for years 2019 through 2030, 2031 through 2034, and 2036 through 2044.

Data Sources:

- Metro Bus Ridership
Link: <https://isotp.metro.net/MetroRidership/Index.aspx>
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

Adjusted BAU Forecast Results

Table B-3 presents emissions for 2018 along with the Adjusted BAU forecast for 2030, 2035, and 2045 for the Stationary Energy sector.

¹⁷ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

¹⁸ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Table B-3: Stationary Energy GHG Emissions – 2018 Inventory and Adjusted BAU Forecasts

| STATIONARY ENERGY SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|---|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Residential Buildings | 962,743 | 825,053 | 755,555 | 617,836 |
| Commercial, Institutional, and Agricultural Buildings | 349,373 | 344,421 | 291,764 | 185,682 |
| Manufacturing and Construction Buildings | 244,417 | 251,607 | 212,726 | 133,633 |
| Energy Industries | 98,554 | 29,495 | 29,526 | 29,587 |
| Fugitive Emissions from Oil and Natural Gas Systems | 41,066 | 49,130 | 49,275 | 49,493 |
| Agriculture, Forestry and Other Fishing Activities | 2,658 | 2,600 | 2,580 | 2,562 |
| TOTAL | 1,698,809 | 1,502,306 | 1,341,401 | 1,018,793 |

NOTES:

Abbreviations: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent. These emissions account for the RPS, SB 100, and Title 24 updates.

Table B-4 presents emissions for 2018 along with the adjusted BAU forecast for 2030, 2035, and 2045 for the Transportation sector.

Table B-4: Transportation GHG Emissions – 2018 Inventory and Adjusted BAU Forecasts

| TRANSPORTATION SUBSECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|--------------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Passenger Vehicles | 2,665,824 | 2,166,604 | 2,047,769 | 1,977,297 |
| Buses | 29,371 | 29,026 | 22,076 | 5,326 |
| Railways | 9,490 | 10,255 | 10,389 | 10,658 |
| TOTAL | 2,704,685 | 2,205,885 | 2,080,234 | 1,993,281 |

NOTES:

Abbreviations: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent. These emissions account for the Advanced Clean Cars regulations and Pavley vehicle efficiency standards.

Table B-5 presents total emissions for 2018 along with the Adjusted BAU forecast for 2030, 2035, and 2045 for all sectors.

Table B-5: Total GHG Emissions by Sector – 2018 Inventory and Adjusted BAU Forecasts

| SECTOR | ANNUAL GHG EMISSIONS (MTCO ₂ E) | | | |
|-------------------|--|------------------|------------------|------------------|
| | 2018 | 2030 | 2035 | 2045 |
| Stationary Energy | 1,698,809 | 1,502,306 | 1,341,401 | 1,018,793 |
| Transportation | 2,704,685 | 2,205,885 | 2,080,234 | 1,993,281 |
| Waste | 469,382 | 451,919 | 454,097 | 482,489 |
| IPPU | 239,505 | 259,605 | 267,981 | 284,731 |
| AFOLU | 60,860 | 60,860 | 60,860 | 60,860 |
| TOTAL | 5,173,240 | 4,480,574 | 4,204,572 | 3,840,154 |

NOTES:
 Abbreviations: AFOLU = Agriculture, Forestry, and Other Land Use; BAU = business-as-usual; GHG = greenhouse gas; IPPU = Industrial Processes and Product Use; MTCO₂e = metric tons of carbon dioxide equivalent.
 Compared to the BAU forecasts, the Adjusted BAU forecast only differs for the Stationary Energy and Transportation sectors. Waste, IPPU, and AFOLU are not changed.

Figure B-1 presents total emissions for 2018 along with the BAU and Adjusted BAU forecast for 2030, 2035, and 2045 for all sectors.

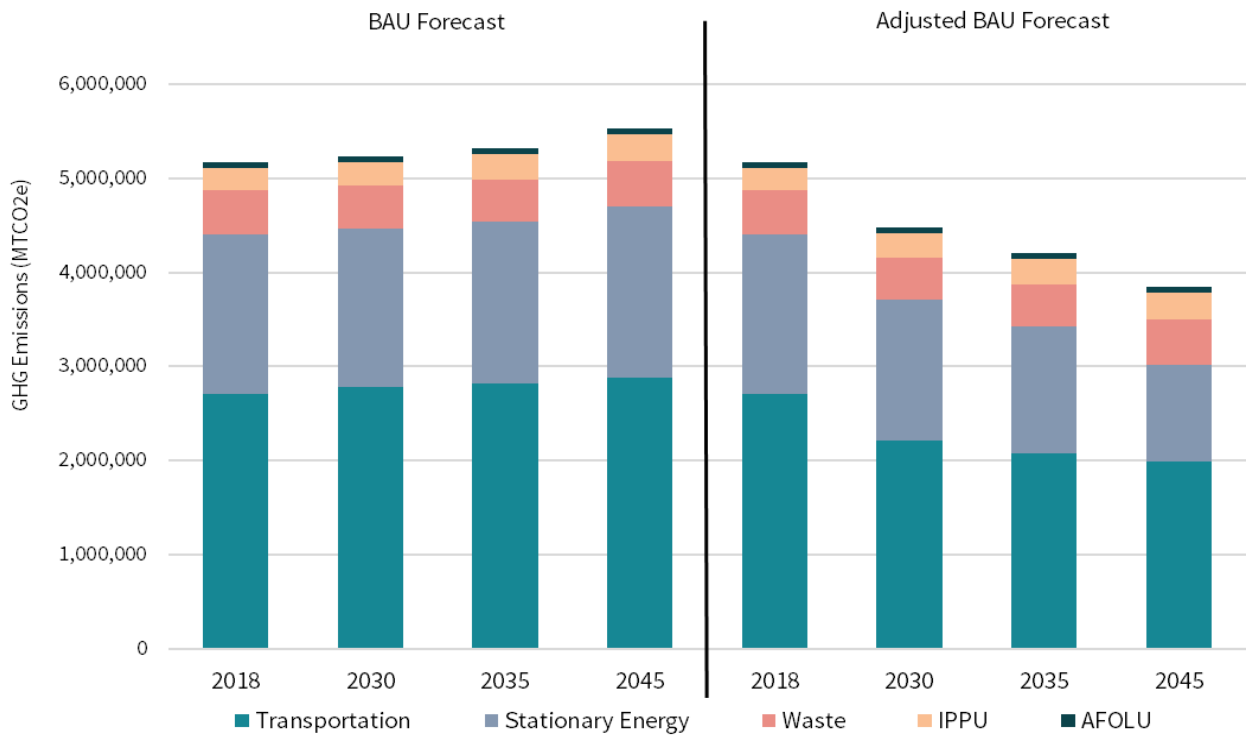


Figure B-1: GHG Emissions by Sector – 2018 Inventory, BAU Forecast, and Adjusted BAU Forecast

B.2 Greenhouse Gas Reduction Measures and Actions

Energy Supply

Strategy 1: Decarbonize the Energy Supply

MEASURE ES1: DEVELOP A SUNSET STRATEGY FOR ALL OIL AND GAS OPERATIONS

Table B-6: Measure ES1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 28,368 |
| 2035 | 40,178 |
| 2045 | 52,148 |

*Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.*

Description

Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal.

Performance Objectives

The goal of Measure ES1 is to reduce oil and gas operations by 40 percent by 2030, 60 percent by 2035, and 80 percent by 2045 (compared to 2015 baseline levels). The aspirational goal of Measure ES1, based on the OurCounty Sustainability Plan, is to cease all oil and gas operations by 2040.

Modeling Approach

Measure ES1 would apply to emissions occurring in the Energy Industries subsector of the Stationary Energy sector of unincorporated Los Angeles County’s GHG inventory. Specifically, Measure ES1 would reduce emissions from combined heat and power facilities and fugitive emissions from oil and natural gas systems. There are two combined heat and power facilities that would reduce emissions under this measure: the Pitchess Cogeneration Station in Saugus and the Olive View Medical Center Cogeneration Station in Sylmar. Both facilities combust natural gas to generate heat and electricity.

Both the Pitchess Cogeneration Station and the Olive View Medical Center Cogeneration Station are owned and operated by the County. The Pitchess Cogeneration Station was decommissioned in 2018 and its emissions decreased by 90 percent from 2017 to 2018. Under Measure ES1, these emissions were assumed to remain constant through 2045. The Olive View Medical Center Cogeneration Station will be decommissioned by 2023, so its emissions were reduced by 90 percent consistent with the reduction in emissions achieved when the Pitchess Cogeneration Station was decommissioned.

Measure ES1 would also reduce fugitive emissions from oil and natural gas systems equivalent to the measure’s performance objectives: 40 below 2015 levels by 2030, 60 percent by 2035, and

80 percent by 2045. These percentages were multiplied by 2015 emissions to estimate emissions reductions for each future year.

Assumptions

- The decommissioning of the Olive View Medical Center Cogeneration Station would reduce natural gas-related GHG emissions by 90 percent.
- Under Measure ES1, both the Pitchess Cogeneration Station and the Olive View Medical Center Cogeneration Station would continue to combust residual natural gas at 10 percent of their fully operational levels through 2045.
- Measure ES1 will reduce fugitive emissions from oil and natural gas systems linearly with the measure’s overall performance objectives for each future year.

Data Sources

- CARB Pollution Mapping Tool
Link: https://www.arb.ca.gov/ei/tools/pollution_map/
- CARB MRR Database
Link: <https://ww2.arb.ca.gov/mrr-data>

MEASURE ES2: PROCURE ZERO-CARBON ELECTRICITY

Table B-15: Measure ES2 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 477,188 |
| 2035 | 317,915 |
| 2045 | 0 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Supplying unincorporated Los Angeles County’s power demand with zero-carbon electricity¹⁹ is critical to achieving significant GHG emissions reductions. The CPA is a nonprofit and community choice energy provider that currently serves 32 communities across Southern California.

Performance Objectives

The goal of Measure ES2 is to enroll 100 percent of municipal facilities in CPA’s Green Power rate option (100 percent Renewables), SCE’s Green Rate option, or other available 100 percent zero carbon electricity service by 2030 and 96 percent of unincorporated Los Angeles County in CPA’s Green Power rate option, SCE’s Green Rate option, or other available 100 percent zero carbon electricity service by 2030 (4 percent opt-out rate).

Modeling Approach

The Measure ES2 calculations use Adjusted BAU electricity activity data and GHG emissions for residential and nonresidential uses in 2030, 2035, and 2045 as a baseline. The default participation rate in the CPA Lean and CPA Clean rate options was changed from 47 percent Clean and 48 percent Lean to 95.6 percent Green and 4.4 percent Lean by 2030 and 2035, and to 95.6 percent Green and 4.4 percent Clean by 2045. GHG emissions were calculated using the

¹⁹ “Zero-carbon electricity” means energy resources that either qualify as “renewable” in the most recent Renewables Portfolio Standard (RPS) Eligibility Guidebook or generate zero greenhouse gas emissions on-site, such as hydropower.

Measure ES2 participation rates and CPA emission factors for 2030, 2035, and 2045 (as described in B.1, *Stationary Energy*). GHG emissions after implementation of Measure ES2 were then subtracted from the Adjusted BAU forecast emissions to estimate the GHG emissions reductions produced by Measure ES2.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA Lean and SCE emission factors are equal; the SCE emission factors are applied to the to the “Opt Out/CPA Lean” category of electricity use in unincorporated Los Angeles County.
- The overall CPA participation rate (95.6 percent) remains constant through 2045.
- Measure ES2 is the first energy measure implemented; therefore, GHG emissions reductions associated with electricity savings as calculated in subsequent energy measures incorporate Measure ES2 participation rates and electricity emission factors.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE ES3: INCREASE RENEWABLE ENERGY PRODUCTION

Table B-18: Measure ES3 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 5,919 |
| 2035 | 5,219 |
| 2045 | 0 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Expand local solar power generation on existing and new development and for County projects.

Performance Objectives

The goal of Measure ES3 is to increase on-site solar electricity production for existing and new multifamily residential buildings, existing commercial buildings, and municipal buildings. The measure aims to install rooftop PV on 20 percent of existing multifamily residential buildings by 2030, 25 percent by 2035, and 35 percent by 2045; install rooftop solar PV on 15 percent of existing commercial buildings by 2030, 22 percent by 2035, and 32 percent by 2045; install rooftop solar PV on 80 percent of new multifamily residential buildings by 2030, 85 percent by 2035, and 95 percent by 2045; install rooftop solar PV on 40 percent of new commercial buildings by 2030, 50 percent by 2035, and 70 percent by 2045; and install 20,000 kilowatts (kW) of rooftop solar PV at county facilities. This measure also aims to install solar PV for community use and rooftop solar PV at all affordable housing developments.

Modeling Approach

Residential

GHG emissions reductions from rooftop solar PV were calculated using multifamily and single-family housing data and projections from the California Department of Finance. The baseline year for existing residential buildings is assumed to be 2023 because this is the earliest date that the 2045 CAP could be adopted and go into effect. Installation of rooftop solar PV on existing multifamily and single-family residential buildings therefore assumes a baseline year of 2023, and installation of rooftop solar PV on new multifamily residential buildings in 2030, 2035, and 2045 is based on the cumulative number of new multifamily households constructed from 2023 through each target years (e.g., the number of new multifamily residential buildings in 2030 is equal to the sum of all new multifamily housing built between 2023 and 2030).

The total number of existing and new households for each target year was then multiplied by the solar PV installation rate for each target year to obtain the number of participating households installing rooftop solar PV through implementation of Measure ES3. The average multifamily solar system size of 6.1 kW was calculated using data from Center for Sustainable Energy's *Fostering a Future for Multifamily Solar* study for the City of Santa Monica.²⁰ The average annual system electricity production (or system output) in kWh was then determined by inputting the 6.1 kW average system size into the National Renewable Energy Laboratory (NREL) PVWatts calculator for a project located in Los Angeles.²¹ The average system output was then multiplied by the number of participating households for both existing and new multifamily development to determine the total solar production (in kWh) for each target year. GHG emissions reductions were calculated by multiplying the total solar production by the relevant SCE and CPA electricity emission factors, using the same participation rates and electricity emission factors implemented under Measure ES2.

For existing single-family residential buildings, the total number of households was multiplied by the solar PV installation rate for each target year to obtain the number of participating households installing rooftop solar PV through implementation of Measure ES5. The average single-family solar system size of 6.3 kW was calculated using data from using statewide data from Berkeley Laboratory's *Tracking the Sun* database.²² The average annual system electricity production (or system output) in kWh was then determined by inputting the 6.3 kW average system size into the NREL PVWatts calculator for a project located in Los Angeles.²³ The average system output was then multiplied by the number of participating households for existing single-family development to determine the total solar production (in kWh) for each target year. GHG emissions reductions were calculated by multiplying the total solar production by the relevant SCE and CPA electricity emission factors, using the same participation rates and electricity emission factors implemented under Measure ES2.

²⁰ Center for Sustainable Energy. 2018. *Fostering a Future for Multifamily Solar in Santa Monica, CA*. February 2018. Available: <https://energycenter.org/sites/default/files/docs/nav/programs/smp/SantaMonicaMarketProfile.pdf>. Accessed November 2021.

²¹ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

²² Berkeley Laboratory. 2021. *Tracking the Sun*. September 2021. Available: <https://emp.lbl.gov/tracking-the-sun>. Accessed November 2021.

²³ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

Measure E6 does not include rooftop solar PV installations on new single-family residential buildings because this is already required through the current 2019 Title 24 standards and also the new 2022 Title 24 standards and is therefore accounted for in the Adjusted BAU forecast.

Commercial

GHG emissions reductions from rooftop solar PV were calculated using existing and new commercial building square footage data from UCLA.²⁴ Like residential buildings above, the baseline year for existing commercial buildings is assumed to be 2023. Installation of rooftop solar PV on existing commercial buildings therefore assumes a baseline year of 2023, and installation of rooftop solar PV on new commercial buildings in 2030, 2035, and 2045 is based on the cumulative number of new commercial square footage constructed from 2023 through each target year (e.g., the number of new commercial square footage in 2030 is equal to the sum of all new commercial square footage built between 2023 and 2030).

Similar to residential buildings, the building square footage was multiplied by the solar PV installation rate for each target year to obtain the total participating commercial square footage installing rooftop solar PV through implementation of Measure ES3. The total number of commercial solar systems was determined by dividing the participating square footage by the average square footage of a commercial building in California of 15,599 square feet.²⁵ The average commercial solar system size was estimated using statewide data from Berkeley Laboratory's *Tracking the Sun* database; this value is 137.1 kW per commercial system.²⁶ The average annual electricity production (or system output) in kWh was then determined by inputting the average system size into the NREL PVWatts calculator for a project located in Los Angeles.²⁷ The average system output was then multiplied by the number of commercial solar systems for both existing and new development to determine the total solar production (in kWh) for each target year. GHG emissions reductions were calculated by multiplying the total solar production by the relevant SCE and CPA electricity emission factors, using the same participation rates and electricity emission factors implemented under Measure ES2.

Municipal

GHG emissions reductions from municipal solar PV installations assumes that the County will install a total of 30 solar systems on County facilities, producing a total capacity of 20 MW. The average system output was then determined by inputting a 20 MW production value into the NREL PVWatts calculator for a project located in Los Angeles.²⁸ The total system output for 20 MW of solar was then multiplied by the relevant SCE and CPA electricity emission factors, using the same participation rates and emission factors implemented under Measure ES2.

²⁴ UCLA Institute of Environmental Studies. 2018. Analysis of County of Los Angeles Parcel Assessor's Data.

²⁵ Energy Information Administration. 2021. *2018 Commercial Buildings Energy Consumption Survey*. September 2021. Available: https://www.eia.gov/consumption/commercial/data/2018/pdf/CBECS_2018_Building_Characteristics_Flipbook.pdf. Accessed November 2021.

²⁶ Berkeley Laboratory. 2021. *Tracking the Sun*. September 2021. Available: <https://emp.lbl.gov/tracking-the-sun>. Accessed November 2021.

²⁷ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

²⁸ National Renewable Energy Laboratory. 2021. PVWatts Calculator. Available: <https://pvwatts.nrel.gov/>. Accessed November 2021.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in Section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- Existing building stock represents the built environment through the year 2023.
- New building stock represents new development starting in 2025.
- The average multifamily solar PV system size is 6.1 kW; each system produces 10,067 kWh per year.
- The average single-family solar PV system size is 6.3 kW; each system produces 10,466 kWh per year.
- The average commercial building solar PV system size is 137.1 kW; each system produces 227,758 kWh per year.
- 20 MW of solar PV is installed at municipal facilities; these systems produce 36,068,108 kWh per year.
- Annual GHG emissions reductions for each target year (2030, 2035, and 2045) reflect all buildings electrified in all previous years (e.g., all buildings electrified from 2025–2030 contribute to annual emissions reductions in 2030).
- New single-family residential buildings are required to install solar PV pursuant to the 2019 and 2022 Title 24 standards.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021
- California Department of Finance Demographic data
Link: <https://www.dof.ca.gov/Forecasting/Demographics/>
- UCLA analysis of County of Los Angeles Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies
- Center for Sustainable Energy, Fostering a Future for Multifamily Solar in Santa Monica, CA.
Link: <https://energycenter.org/sites/default/files/docs/nav/programs/smp/SantaMonicaMarketProfile.pdf>
- USEIA, 2018 Commercial Buildings Energy Consumption Survey
Link: https://www.eia.gov/consumption/commercial/data/2018/pdf/CBECS_2018_Building_Characteristics_Flipbook.pdf
- Berkeley Laboratory, Tracking the Sun
Link: <https://emp.lbl.gov/tracking-the-sun>
- NREL, PVWatts Calculator
Link: <https://pvwatts.nrel.gov/>

Transportation

GHG emissions reductions modeled for Measures T1, T2, T3, and T4 are based on changes to planned land use and transportation infrastructure (such as bikeways and transit) already envisioned in existing County plans and programs, such as the 2021 Housing Element Update and its Program EIR, the Los Angeles County Bike Master Plan (2012), the LA Metro NextGen Plan (2020), and LA Metro Long Range Transportation Plan (2020). The 2045 CAP does not result in any new changes to land use or transportation infrastructure than what was already analyzed in these existing plans and their CEQA documents. Consequently, the 2045 CAP merely models the GHG emissions reductions associated with the changes to land use and transportation infrastructure that were already analyzed elsewhere.

Strategy 2: Increase Densities and Diversity of Land Uses Near Transit

MEASURE T1: INCREASE DENSITY NEAR HIGH-QUALITY TRANSIT AREAS

Table B-7: Measure T1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 27,357 |
| 2035 | 26,019 |
| 2045 | 25,276 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Increase housing opportunities that are affordable and near transit, to reduce VMT.

Performance Objectives

The goal of Measure T1 is to increase residential density by achieving a minimum of 20 dwelling units (DU) per acre (maximum of 30–150 DU/acre) for High Quality Transit Areas (HQTAs), locate residential and employment centers in unincorporated Los Angeles County within one mile of an HQTA, and increase the dwelling units within HQTAs by 27 percent.

Modeling Approach

VMT reductions were estimated using research documented in the 2021 California Air Pollution Control Officers Association (CAPCOA) publication *Quantifying Greenhouse Gas Mitigation Measures* (referred to herein as the “CAPCOA handbook”).²⁹ To quantify VMT reductions, appropriate equations were used based on factsheets in the CAPCOA handbook. Using data from a County GIS shapefile layer showing the 2021–2029 Housing Element Rezone Areas and a major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool released in late 2020, along with CAPCOA equations, percent reductions in VMT were estimated for Measure T1. Specifically, it was assumed that the residential density within HQTAs as planned for in the 2021–2029 Housing Element would be 20 DU per acre (the Housing Element analyzed densities from 20 DU/acre to 50 du/acre) compared to the typical density value of 9.1 DU/acre, resulting in a 26.4 percent reduction in passenger vehicle VMT for affected areas. This reduction was applied to the specific home-based VMT occurring within the affected transit-oriented design (TOD) areas in unincorporated Los Angeles County.

VMT was calculated at the transportation analysis zone (TAZ) level.³⁰ Once the percent VMT reductions were determined, based on the geographic scope and VMT category of Measure T1, the appropriate VMT was aggregated across the relevant TAZs within which residential densities would increase. Percent reductions were then applied to appropriate VMT subtotals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty

²⁹ California Air Pollution Control Officers Association. 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, California Air Pollution Control Officers Association. December 2021. Available: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-calcemod>. Accessed January 2022.

³⁰ TAZs are comparable in size and shape to census tracts or block groups depending on the travel demand model used and level of modeling detail.

vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045). These VMT calculations were prepared by Fehr & Peers and supplied to the County.

GHG reductions from Measure T1 are calculated using daily VMT reductions provided by Fehr & Peers, as described above.³¹ The average daily VMT reductions achieved through implementation of Measure T1 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were then calculated by multiplying the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³²

Assumptions

- The residential density within HQTAs as planned for in the County’s 2021–2029 Housing Element would be 20 DU per acre.
- The typical residential density without the County’s 2021 Housing Element Update is 9.1 DU per acre.
- VMT reductions apply to home-based VMT occurring within the affected TOD and HQTA areas in unincorporated Los Angeles County.
- Daily VMT reductions are annualized by multiplying by 347 days.
- Passenger vehicle category corresponds to the EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- Major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool (2020)
- California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 22, 2023)
- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update - VMT Technical Memorandum (February 23, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

MEASURE T2: DEVELOP LAND USE PLANS ADDRESSING JOBS-HOUSING BALANCE AND INCREASE MIXED USE

Table B-8: Measure T2 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 39,184 |
| 2035 | 37,267 |
| 2045 | 36,204 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Increasing density and the mix of land uses can help reduce single-occupancy trips, the number of trips, and trip lengths.

³¹ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary. February 22, 2023.
³² California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Performance Objectives

The goal of Measure T2 is to increase job density to 300 jobs per acre by 2030.

Modeling Approach

To quantify VMT reductions for Measure T2, appropriate equations were used based on factsheets in the CAPCOA handbook. Using data from a County GIS shapefile layer showing the 2021–2029 Housing Element Rezone Areas and a major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool released in late 2020, along with CAPCOA equations, percent reductions in VMT were estimated for Measure T2. Specifically, it was assumed that the transit mode share as planned for in the as planned for in the County’s SB 743 VMT Tool would be 27 percent compared to the typical transit mode share of 15 percent, resulting in a 31.8 percent reduction in passenger vehicle VMT for affected areas. This reduction was applied to the total VMT occurring within the affected TOD areas in unincorporated Los Angeles County.

VMT was calculated at the TAZ level. Once the percent VMT reductions were determined, based on the geographic scope and VMT category of Measure T2, the appropriate VMT was aggregated across the relevant TAZs within which transit mode shift would increase. Percent reductions were then applied to appropriate VMT subtotals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045). These VMT calculations were prepared by Fehr & Peers and supplied to the County.

GHG reductions from Measure T2 are calculated using daily VMT reductions provided by Fehr & Peers, as described above.³³ The average daily VMT reductions achieved through implementation of Measure T2 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were then calculated by multiplying the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³⁴

Assumptions

- The transit mode share would increase from 15 percent to 27 percent under this measure, based on the County’s 2021 Housing Element Update and the County’s SB 743 VMT Tool.
- VMT reductions apply to the total VMT occurring within the affected TOD areas in unincorporated Los Angeles County.
- Daily VMT reductions are annualized by multiplying by 347 days
- Passenger vehicle category corresponds to the EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- Major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool (2020)
- 2012 California Household Travel Survey
Link: <https://www.nrel.gov/transportation/secure-transportation-data/tsdc-california-travel-survey.html>
- California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures
Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 22, 2023)

³³ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary, February 22, 2023.

³⁴ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. 2021. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update – VMT Technical Memorandum (February 22, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

Strategy 3: Reduce Single-Occupancy Vehicle Trips

MEASURE T3: EXPAND BICYCLE AND PEDESTRIAN NETWORK TO SERVE RESIDENTIAL, EMPLOYMENT, AND RECREATIONAL TRIPS

Table B-9: Measure T3 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 0 |
| 2035 | 2,811 |
| 2045 | 2,730 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles.

Performance Objectives

The goal of Measure T3 is to increase bikeway miles by 300 percent by 2035.

Modeling Approach

To quantify VMT reductions for Measure T3, appropriate equations were used based on factsheets in the CAPCOA handbook. Using data from a County GIS shapefile layer showing the 2021–2029 Housing Element Rezone Areas and the 2012 County of Los Angeles Bicycle Master Plan, along with CAPCOA equations, percent reductions in VMT were estimated for Measure T3. Specifically, it was assumed that the bikeway network as planned for in the 2012 County of Los Angeles Bicycle Master Plan would be increased by more than threefold by 2035 as compared to existing conditions, resulting in a 0.5 percent reduction in Countywide passenger vehicle VMT. This reduction was applied to the total VMT occurring within unincorporated Los Angeles County. The sum of these VMT reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045). These VMT calculations were prepared by Fehr & Peers and supplied to the County.

GHG reductions from Measure T3 are calculated using daily VMT reductions provided by Fehr & Peers, as described above.³⁵ The average daily VMT reductions achieved through implementation of Measure T3 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were

³⁵ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary, February 22, 2023.

then calculated by multiplying the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³⁶

Assumptions

- The County’s bikeway network as planned for in the 2012 County of Los Angeles Bicycle Master Plan would be increased by more than threefold by 2035 as compared to existing conditions.
- The reduction in VMT applies to the total VMT occurring within unincorporated Los Angeles County.
- Daily VMT reductions are annualized by multiplying by 347 days.
- Passenger vehicle category corresponds to EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- 2012 County of Los Angeles Bicycle Master Plan
Link: <https://pw.lacounty.gov/tpp/bike/masterplan.cfm>
- California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measure
Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 23, 2023)
- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update - VMT Technical Memorandum (February 23, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

MEASURE T4: BROADEN OPTIONS FOR TRANSIT, ACTIVE TRANSPORTATION, AND ALTERNATIVE MODES OF TRANSPORTATION

Table B-10: Measure T4 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 11,465 |
| 2035 | 10,904 |
| 2045 | 10,593 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Transit service, micro mobility services (such as bike-share, scooter-share, and drone deliveries), and access to these transportation options can help reduce VMT.

Performance Objectives

The goal of Measure T4 is to, by 2030, double transit service hours from 560,000 to 1.12 million hours, install bus-only lanes on all major transit thoroughfares, and that 75 percent of unincorporated Los Angeles County residents will live within one-half mile of shuttle or mobility service. Measure T4 has several additional performance goals, such as that all transit corridors will have micro mobility service and to prioritize micro mobility along equity areas and high-quality transit corridors.

³⁶ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Modeling Approach

To quantify VMT reductions for Measure T4, appropriate equations were used based on factsheets in the CAPCOA handbook. VMT reductions and associated GHG emissions reductions were quantified for two separate implementing actions that support Measure T4: Action T4.1 (Expand and improve frequency of County shuttles and explore new mobility services, such as micro transit, autonomous vehicles, micro mobility, and on-demand autonomous shuttles) and Action T4.2 (Install bus-only lanes and signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate).

To calculate VMT reductions from Action T4.1, Fehr & Peers used a major transit stop GIS layer developed as part of the County's SB 743 VMT Tool released in late 2020 and information from the LA Metro NextGen Bus Plan (2020) and the LA Metro Long Range Transportation Plan (2020), along with CAPCOA equations. Specifically, the transit mode share of 4.6 percent per the 2012 California Household Travel Survey was used, and it was assumed that implementation of Action T4.1 would increase the total number of transit service hours in unincorporated Los Angeles County from 560,000 to 1.12 million after transit expansion. This value is based on the Metro NextGen report. This increase in transit service hours would result in a 1.9 percent reduction in Countywide passenger vehicle VMT. This reduction was applied to the total VMT occurring within unincorporated Los Angeles County. This VMT reduction was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045).

To calculate VMT reductions from Action T4.2, Fehr & Peers used a major transit stop GIS layer developed as part of the County's SB 743 VMT Tool released in late 2020 and information from the LA Metro NextGen Plan and LA Metro Long Range Transportation Plan, along with CAPCOA equations. Specifically, the transit mode share of 4.6 percent per the 2012 California Household Travel Survey was used, and it was assumed that implementation of Action T4.2 would result in 100 percent of all transit routes in unincorporated Los Angeles County will receive bus-only lanes, signal prioritization along major thoroughfares, and full bus rapid transit infrastructure along priority corridors. This value is based on the LA Metro NextGen Plan and LA Metro Long Range Transportation Plan. This infrastructure would result in a 0.6 percent reduction in total VMT occurring in unincorporated Los Angeles County's TOD areas and HQTAs. VMT was calculated at the TAZ level. Once the percent VMT reductions were determined, based on the geographic scope and VMT category of Measure T4.2, the appropriate VMT was aggregated across the relevant TAZs within which transit mode shift would increase. Percent reductions were then applied to appropriate VMT subtotals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045).

GHG reductions from Measure T4 are calculated using daily VMT reductions provided by Fehr & Peers, as described above.³⁷ The average daily VMT reductions achieved through implementation of Measure T4 were annualized by multiplying by 347 days, consistent with the GHG Inventory and Adjusted BAU forecast (see Appendix A). GHG emissions reductions were

³⁷ Fehr & Peers. 2021. County of Los Angeles CAP VMT Reduction Estimate Summary, February 22, 2023.

then calculated by multiplying the annual VMT reductions by the Adjusted BAU passenger vehicle emission factors for each target year as derived from EMFAC2021 (see Section B.1 above).³⁸

Assumptions

- The baseline transit mode share is 4.6 percent, per the 2012 California Household Travel Survey.
- For Action T4.1, the total number of transit service hours in unincorporated Los Angeles County would increase from 560,000 to 1.12 million after transit expansion.
- For Action T4.1, the reduction in VMT applies to the total VMT occurring within unincorporated Los Angeles County.
- For Action T4.2, 100 percent of all transit routes in unincorporated Los Angeles County will receive bus-only lanes, signal prioritization along major thoroughfares, and full bus rapid transit infrastructure along priority corridors.
- For Action T4.2, VMT reductions apply to the relevant TAZs within which transit mode shift would increase.
- Daily VMT reductions are annualized by multiplying by 347 days.
- Passenger vehicle category corresponds to the EMFAC vehicle categories LDA, LDT1, LDT2, MCY, and MD.

References

- County of Los Angeles GIS shapefile layer for the 2021–2029 Housing Element Rezone Areas
- Major transit stop GIS layer developed as part of the County’s SB 743 VMT Tool (2020)
- LA Metro 2020 Long Range Transportation Plan, March 2020.
Link: <https://www.metro.net/about/plans/long-range-transportation-plan/>
- LA Metro NextGen Bus Plan, October 2020
Link: <https://www.metro.net/about/plans/nextgen-bus-plan/>
- 2012 California Household Travel Survey
Link: <https://www.nrel.gov/transportation/secure-transportation-data/tsdc-california-travel-survey.html>
- California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*
Link: <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>
- Fehr & Peers, County of Los Angeles CAP VMT Reduction Estimate Summary (February 22, 2023)
- Fehr & Peers, County of Los Angeles 2045 Climate Action Plan Update - VMT Technical Memorandum (February 22, 2023)
- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>

Strategy 4: Institutionalize Low-Carbon Transportation

MEASURE T6: INCREASE ZEV MARKET SHARE AND REDUCE GASOLINE AND DIESEL FUEL SALES

Table B-11: Measure T6 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 482,515 |
| 2035 | 820,125 |
| 2045 | 1,535,101 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

³⁸ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

Description

Increase unincorporated Los Angeles County's ZEV market share and vehicle penetration to the maximum extent feasible. Set targets for reducing total gasoline and diesel vehicle fuel sales.

Performance Objectives

The goal of Measure T6 is to increase the total amount of light-duty vehicles in unincorporated Los Angeles County that are ZEVs to 30 percent by 2030, 50 percent by 2035, and 90 percent by 2045; to increase the sales of new light-duty vehicles in unincorporated Los Angeles County that are ZEVs to 68 percent by 2030 and 100 percent by 2035; to install 38,000 total new public and private shared EVCS (including EVCS at County facilities and properties) by 2030, 74,000 total new EVCS by 2035, and 140,000 total new EVCS by 2045; and to install 5,000 total new EVCS at County facilities and properties, 10,000 total new EVCS by 2035, and 25,000 total new EVCS by 2045.

Modeling Approach

The Measure T6 calculations use Adjusted BAU GHG emissions from passenger vehicles as a baseline. To calculate the portion of the passenger vehicle fleet that are ZEVs under Measure T6, the passenger vehicle electrification performance goals for each future year were applied to the total vehicle population and Countywide VMT outputs of the applicable EMFAC2021 model passenger vehicle types (LDA, LDT1, LDT2, MCY, and MDV). The remaining non-ZEV population and Countywide VMT by fuel type (diesel, gasoline, and plug-in hybrid) was distributed proportionally for each vehicle type based on Countywide fuel type distribution data from EMFAC2021. The adjusted ZEV population and VMT values with implementation of Measure T6 were then factored back in to the VMT-weighted emission factor calculations used for the Adjusted BAU forecast (see section B.2 above) to calculate new fleetwide vehicle emission rates under Measure T6. The recalculated weighted emission factors for passenger vehicles were then applied to the total passenger vehicle VMT by year to estimate GHG emissions with implementation of Measure T6.

Electric vehicle miles traveled (e-VMT) were then calculated for the Adjusted BAU forecast and for the scenario with implementation of Measure T6 by multiplying the total passenger vehicle VMT for each year by the electric vehicle share under each scenario. The e-VMT was then multiplied by electricity factors (kWh/mile) derived from EMFAC2021 to determine the total electricity consumption from electric vehicles. GHG emissions associated with this electricity use were estimated using the same participation rates and emission factors implemented under Measure ES2, as described below. Total GHG emissions reductions from Measure T6 were calculated by subtracting GHG emissions associated with Measure T6 implementation for passenger vehicles and electric vehicle charging from GHG emissions under the Adjusted BAU forecast for passenger vehicles and electric vehicle charging.

Measure T6 substantially reduces GHG emissions in the county; this measure is the most effective measure in the 2045 CAP.

Assumptions

- Increased electric vehicle adoption displaces all other vehicle types (diesel, gasoline, plug-in hybrid) and non-ZEV VMT is redistributed proportional to each fuel type's share of total population and VMT (from EMFAC2011).
- The efficiency of electric vehicles remains constant throughout all future years.

- The County passenger fleet vehicle population remains constant through 2045.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 below.
- CPA participation rates after implementation of Measure ES2.

Data Sources

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- Alternative Fuels Data Center, Annual Average VMT per Vehicle
Link: <https://afdc.energy.gov/data/10309>
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLLogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLLogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE T7: ELECTRIFY COUNTY FLEET VEHICLES

Table B-12: Measure T7 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 29,743 |
| 2035 | 24,335 |
| 2045 | 10,119 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Electrify the County bus, shuttle, and light-duty vehicle fleet and shuttles.

Performance Objectives

The goals of this measure are to increase the total amount of light-duty vehicles in the County-owned fleet that are ZEVs to 35 percent by 2030, 60 percent by 2035, and 100 percent by 2045; to electrify the entire County bus and shuttle fleet by 2035; and to electrify 15 of the County’s inmate buses by 2030, 30 inmate buses by 2035, and 68 inmate buses by 2045.

Modeling Approach

GHG emissions reductions associated with electrification of County passenger fleet vehicles were calculated for Measure T7. The total number of County fleet passenger vehicles was provided by the County’s Internal Services Department (ISD).³⁹ Total VMT for these vehicles were estimated based on an annual average VMT per vehicle from the Alternative Fuels Data Center.⁴⁰ This average VMT value was then multiplied by the number of vehicles to estimate the total annual VMT for County fleet passenger vehicles. The baseline (Adjusted BAU) e-VMT was estimated based on the number of electric vehicle purchases in fiscal year 2019–20 as a percentage of total passenger fleet vehicles from the County’s Annual Clean Fuel Sustainability Report. e-VMT under implementation of Measure T6 was estimated using the total passenger fleet vehicle VMT and electric vehicle fleet goals specific to the County fleet (35 percent by 2030, 60 percent by 2035,

³⁹ County of Los Angeles Internal Services Department. 2021. *Annual Clean Fuel Sustainability Report*.

⁴⁰ Alternative Fuels Data Center. 2020. Annual Average VMT per Vehicle. February 2020. Available: <https://afdc.energy.gov/data/10309>. Accessed November 2021.

and 100 percent by 2045). GHG emissions for electrified passenger fleet vehicles with implementation of Measure T6 were then calculated by multiplying total VMT by adjusted VMT-weighted emission factors from EMFAC2021 using the same method as discussed above for the Countywide fleet, scaled to match the light-duty fleet electrification performance objectives of this measure. These emissions were subtracted from the Adjusted BAU forecast GHG emissions for the County passenger vehicle fleet in order to estimate GHG emissions reductions for Measure T7 for county light-duty fleet vehicles. Only the portion of GHG emissions reductions for county fleet vehicles that exceed the ZEV goals of Measure T6 were included in Measure T7, to avoid double-counting the effects of Measure T6 on the county-owned fleet.

The Measure T7 calculations use Adjusted BAU fuel use and GHG emissions from public transit buses as a baseline. Measure T7 assumes a 100 percent electrification rate of all County fleet buses by 2030. To calculate GHG emissions reductions associated with Measure T7, fuel use from diesel, gasoline, and compressed natural gas under the Adjusted BAU forecast was converted to electricity using specific energy effectiveness ratios (EERs) by fuel type and conversion factors from gallons to British thermal units (Btu) and Btu to electricity use.^{41,42} The EERs account for the change in vehicle energy efficiency when substituting one fuel for another. GHG emissions associated with implementation of Measure T7 were calculated using the same participation rates and emission factors implemented under Measure ES2, as discussed below. GHG emissions after implementation of Measure T7 were then subtracted from the Adjusted BAU GHG emissions to estimate the emissions reductions from Measure T7.

Measure T7 also includes electrification of the County's inmate bus fleet. The total number of inmate buses in the County's fleet (88) was provided by the Los Angeles County Sheriff's Department.⁴³ Annual VMT for the County's inmate bus fleet was estimated based on an annual average VMT value of 12,000 per bus from the Alternative Fuels Data Center.⁴⁴ The average inmate bus VMT was then multiplied by the total number of inmate buses to estimate the total annual VMT for inmate buses. The baseline e-VMT was assumed to be zero given that the Sheriff's Department does not currently operate any electric inmate buses. e-VMT from implementation of Measure T7 was determined using data provided by the Los Angeles County Sheriff's Department on planned electrification of the inmate bus fleet: 15 buses electrified by 2030, 30 buses electrified by 2035, and 68 buses electrified by 2045.⁴⁵ GHG emissions associated with the electrification of inmate buses under Measure T7 were calculated using weighted average bus emission factors from EMFAC2021 multiplied by the annual diesel VMT and e-VMT; these emissions were then subtracted from the GHG emissions in the Adjusted BAU forecast to determine emissions reductions.

⁴¹ Navius Research. 2018. *Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles*. November 6, 2018. Available: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>. Accessed November 2021.

⁴² Alternative Fuels Data Center. 2021. Fuel Properties. January 2021. Available: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.

⁴³ County of Los Angeles Internal Services Department. 2021. *Annual Clean Fuel Sustainability Report*.

⁴⁴ Alternative Fuels Data Center. 2020. Annual Average VMT per Vehicle. February 2020. Available: <https://afdc.energy.gov/data/10309>. Accessed November 2021.

⁴⁵ Los Angeles County Sheriff's Department email correspondence (2021).

Assumptions

- The County passenger fleet vehicle annual average VMT per vehicle value of 11,467 remains constant through 2045.
- Complete electrification of the transit bus fleet by 2030.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 below.
- CPA participation rates after implementation of Measure ES2.
- EERs applied to each non-electric fuel type to convert to electricity.
- The County inmate bus fleet vehicle annual average VMT per bus value of 12,000 remains constant through 2045.

References

- County of Los Angeles Internal Services Department, Annual Clean Fuel Sustainability Report, 2021.
- Navius Research, Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles
Link: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>.
- Alternative Fuels Data Center, Fuel Properties.
Link: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.
- County of Los Angeles Internal Services Department, Annual Clean Fuel Sustainability Report, 2021.
- Alternative Fuels Data Center, Annual Average VMT per Vehicle
Link: <https://afdc.energy.gov/data/10309>.
- Los Angeles County Sheriff's Department email correspondence (2021)
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE T8: ACCELERATE FREIGHT DECARBONIZATION

Table B-13: Measure T8 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 86,168 |
| 2035 | 103,528 |
| 2045 | 176,638 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Incentivize and implement freight decarbonization technologies, specifically focusing on charging infrastructure.

Performance Objectives

The goal of this measure is to achieve a total market share of ZEVs for medium- and heavy-duty vehicles of 40 percent by 2030, 60 percent by 2035, and 90 percent by 2045; transition 50 percent of medium- and heavy-duty vehicles in the County-owned fleet to ZEVs by 2030, 70 percent by 2035, and 95 percent by 2045; ensure that 100 percent of the drayage truck fleet is ZEV by 2035; ensure that 100 percent of sales of medium- and heavy-duty trucks are ZEV by

2045; require that all new warehouse loading docks have EVCS by 2030; and require that all existing warehouse loading docks have EVCS by 2030.

Modeling Approach

The Measure T8 calculations use Adjusted BAU GHG emissions from medium- and heavy-duty trucks as a baseline. To calculate the portion of the medium- and heavy-duty truck fleet that are ZEVs under Measure T8, the truck electrification performance goals for each future year were applied to the total vehicle population and Countywide VMT outputs of the applicable EMFAC2021 model medium- and heavy-duty vehicle types (LHDT1, LHDT2, MHDT, HHDT, and MH). The remaining non-ZEV population and Countywide VMT by fuel type (diesel, gasoline, and natural gas) was distributed proportionally for each vehicle type based on Countywide fuel type distribution data from EMFAC2021. The adjusted ZEV population and VMT values with implementation of Measure T8 were then factored back into the VMT-weighted emission factor calculations used for the Adjusted BAU forecast (see section B.2 above) to calculate new fleetwide vehicle emission rates under Measure T8. The recalculated weighted emission factors for trucks were then applied to the total medium- and heavy-duty truck VMT by year to estimate GHG emissions with implementation of the Measure T8.

The e-VMT were then calculated for the Adjusted BAU forecast and for the scenario with implementation of Measure T8 by multiplying the total medium- and heavy-duty truck VMT for each year by the electric vehicle share under each scenario.⁴⁶ The e-VMT was then multiplied by electricity factors (kWh/mile) derived from EMFAC2021 to determine the total electricity consumption from electric vehicles. GHG emissions associated with this electricity use were estimated using the same participation rates and emission factors implemented under Measure ES2, as described below. Total GHG emissions reductions from Measure T8 were calculated by subtracting GHG emissions associated with Measure T8 implementation for medium- and heavy-duty trucks and electric vehicle charging from GHG emissions under the Adjusted BAU forecast for medium- and heavy-duty trucks and electric vehicle charging.

GHG emissions reductions associated with electrification of the County's medium- and heavy-duty fleet vehicles were also calculated for Measure T8. The total number of County fleet medium- and heavy-duty trucks was provided by ISD.⁴⁷ Total VMT for these vehicles were estimated based on an annual average VMT per truck from the Alternative Fuels Data Center.⁴⁸ This average VMT value was then multiplied by the number of trucks to estimate the total annual VMT for the County's medium- and heavy-duty fleet vehicles. The baseline (Adjusted BAU) e-VMT was estimated based on the number of electric truck purchases in fiscal year 2019–20 as a percentage of total medium- and heavy-duty fleet vehicles from the County's Annual Clean Fuel Sustainability Report. e-VMT under implementation of Measure T8 was estimated using the total medium- and heavy-duty fleet vehicle VMT and electric truck fleet goals specific to the County fleet (60 percent by 2030, 80 percent by 2035, and 95 percent by 2045). GHG emissions for electrified medium- and heavy-duty fleet vehicles with implementation of Measure T8 were then calculated by multiplying total VMT by adjusted VMT-weighted emission factors from EMFAC2011 using the same method as discussed above for the Countywide fleet. These

⁴⁶ California Air Resources Board. 2021. EMFAC2021 Model. Version v1.0.1. Available: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>. Accessed October 2021.

⁴⁷ County of Los Angeles Internal Services Department. 2021. *Annual Clean Fuel Sustainability Report*.

⁴⁸ Alternative Fuels Data Center. 2020. Annual Average VMT per Vehicle. February 2020. Available: <https://afdc.energy.gov/data/10309>. Accessed November 2021.

emissions were subtracted from the Adjusted BAU forecast GHG emissions for the County’s medium- and heavy-duty vehicle fleet to estimate GHG emissions reductions for Measure T8 for County fleet vehicles.

Assumptions

- Increased electric vehicle adoption displaces all other vehicle types (diesel, gasoline, natural gas) and VMT is redistributed proportional to the fuel type’s share of total population and VMT.
- The County’s medium- and heavy-duty fleet vehicle population remains constant through 2045.
- The County’s medium- and heavy-duty fleet vehicle annual average VMT per vehicle value of 16,326 remains constant through 2045.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA participation rates after implementation of Measure ES2.

Data Sources

- EMFAC2021 Model, v1.0.1
Link: <https://arb.ca.gov/emfac/emissions-inventory/4c9f04282a1f85d62a27721058b5a3bb6fd22fb9>
- County of Los Angeles Internal Services Department, Annual Clean Fuel Sustainability Report, 2021
- Alternative Fuels Data Center, Annual Average VMT per Vehicle
Link: <https://afdc.energy.gov/data/10309>.
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

MEASURE T9: EXPAND USE OF ZERO-EMISSION TECHNOLOGIES FOR OFF-ROAD VEHICLES AND EQUIPMENT

Table B-14: Measure T9 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 8,373 |
| 2035 | 21,819 |
| 2045 | 44,964 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Prohibit the use of gas- and diesel-powered small (≤25 horsepower) off-road equipment and increase the use of zero-emission and near-zero-emission construction, agriculture, and manufacturing equipment.

Performance Objectives

The goal of this measure is to increase the total amount of off-road fleet and equipment in unincorporated Los Angeles County that are ZEVs to 20 percent by 2030, 50 percent by 2035, and 95 percent by 2045; and to increase the fleetwide percentage of construction, agriculture, and manufacturing equipment in unincorporated Los Angeles County that are ZEVs to 50 percent by 2030, 75 percent by 2035, and 100 percent by 2045.

Modeling Approach

The Measure T9 calculations use Adjusted BAU off-road vehicle fuel consumption and GHG emissions as a baseline for estimating GHG emissions reductions. Measure T9 aims to electrify unincorporated Los Angeles County's off-road vehicles and equipment by an increasing percentage in each future year. To calculate GHG emissions reductions associated with Measure T9, fuel use from diesel, gasoline, and compressed natural gas under the Adjusted BAU forecast was multiplied by electrification rates by target year and then converted to electricity using specific EERs by fuel type and conversion factors from gallons to Btu and Btu to electricity use.^{49,50} GHG emissions from electricity under Measure T9 were calculated using the same participation rates and emission factors implemented under Measure ES2, as discussed below. Diesel, gasoline, and natural gas GHG emissions were calculated using emission factors derived from CARB's OFFROAD2017 ORION model.⁵¹ GHG emissions after implementation of Measure T9 were then subtracted from the Adjusted BAU GHG emissions to estimate the emissions reductions from Measure T9.

Assumptions

- Natural gas-fueled equipment is not displaced by electric equipment.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 below.
- CPA participation rates after implementation of Measure ES2.
- EERs applied to each non-electric fuel type to convert to electricity.

References

- CARB OFFROAD ORION Model
Link: <https://arb.ca.gov/emfac/>
- Navius Research, Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles
Link: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>.
- Alternative Fuels Data Center, Fuel Properties.
Link: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021

Building Energy and Water

Building Energy and Water Measure Order of Implementation

To avoid double counting GHG emissions reductions for measures that reduce emissions in building energy and water, these measures account for overlapping effects. For example, Measure ES2 (Procure Zero Carbon Electricity) is implemented first and includes electricity emission factors and CPA participation rates that are applied through the remaining building

⁴⁹ Navius Research. 2018. *Analysis of Energy Effectiveness Ratios for Light- and Heavy-Duty Vehicles*. November 6, 2018. Available: <https://www.naviusresearch.com/wp-content/uploads/2018/11/BC-EER-Review-Final-Report-2018-11-06.pdf>. Accessed November 2021.

⁵⁰ Alternative Fuels Data Center. 2021. Fuel Properties. January 2021. Available: <https://afdc.energy.gov/fuels/properties>. Accessed November 2021.

⁵¹ California Air Resources Board. 2018. OFFROAD ORION. Available: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>. Accessed January 2021.

energy and water measures. Further, each measure’s baseline activity data (i.e., electricity and natural gas consumption) are affected by the ordering of the measures. For example, grid electricity savings from solar production under Measure ES3 (Increase Renewable Energy Production) are subtracted from the adjusted BAU electricity activity data for the relevant building sector and the resulting electricity usage is used as the new “baseline” activity data for the next measure, Measure E4 (Improve Energy Efficiency of Existing Buildings). After Measure E4 is implemented, the new “baseline” activity data are recalculated and used as the new “baseline” total electricity usage for Measure E1 (Transition Existing Buildings to All-Electric). For calculation purposes, measures were assumed to be implemented in the following order:

1. Measure ES2: Procure Zero Carbon Electricity
2. Measure ES3: Increase Renewable Energy Production
3. Measure E4: Improve Energy Efficiency of Existing Buildings
4. Measure E1: Transition Existing Buildings to All-Electric
5. Measure E2: Standardize All-Electric New Development
6. Measure E5: Increase Use of Recycled Water and Gray Water Systems

Note that Measure E2 (Standardize All-Electric New Development) is independent of the other measures because it exclusively applies to new development and therefore does not use the same baseline activity data as the other measures.

Strategy 5: Decarbonize Buildings

MEASURE E1: TRANSITION EXISTING BUILDINGS TO ALL-ELECTRIC

Table B-16: Measure E1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 176,072 |
| 2035 | 280,988 |
| 2045 | 477,221 |

*Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.*

Description

As the carbon intensity of grid-supplied electricity decreases, decarbonization must be combined with building electrification, shifting more load toward cleaner sources. This measure aims to electrify existing buildings. Biomethane is another preferred alternative to fossil natural gas; however, the existing opportunities for widespread use of biomethane are limited.

Performance Objectives

The goal of Measure E1 is to electrify 25 percent of all existing residential buildings by 2030, 40 percent by 2035, and 80 percent by 2045; to electricity 15 percent of all existing nonresidential buildings by 2030, 25 percent by 2035, and 60 percent by 2045; and to require Zero Net Energy (ZNE) for 50 percent of all major renovations by 2030, 75 percent by 2035, and 100 percent by 2045. Measure E1 has several additional performance goals, including adopting building

performance standards and reach code(s), adopting a ZNE ordinance, electrify County facilities to the maximum extent feasible, retrofit affordable housing units for efficiency, decarbonization, and resilience, and to ensure low-income households do not experience rent increases as result of first cost.

Modeling Approach

The performance objectives were derived using SCE's Pathway to 2045 Whitepaper electrification targets, as stated in Table 1 of the whitepaper's appendices. Targets are identified for the space and water heating end uses for both residential and commercial buildings. Using data from the 2012 Commercial Buildings Energy Consumption Survey (CBECS) and the 2015 Residential Energy Consumption Survey (RECS), these end use electrification targets were adjusted to overall residential and nonresidential natural gas consumption for buildings in the "Mixed-dry/Hot-dry" climate region as defined by the U.S. Energy Information Administration (which includes Los Angeles County).⁵²

The Measure E1 calculations use the activity data (electricity and natural gas) and GHG emissions for existing residential and nonresidential land uses after implementation of Measure ES2 (Procure Zero Carbon Electricity) as a baseline. The baseline year for existing development is assumed to be 2023 because this is the earliest date that the 2045 CAP could be adopted and go into effect. In other words, Measure E1 would apply to the built environment through the end of 2022. Electricity emissions before implementation of Measure E1 were calculated using the same participation rates and emission factors implemented under Measure ES2. To calculate the reduction in natural gas use and increase in electricity use under Measure E1, natural gas use in applicable buildings was converted to electricity use by multiplying the number of therms consumed by the electrification percentage for each building type (residential and nonresidential) for each target year, and then converting the displaced natural gas to electricity using a standard conversion factor of 29.3 kWh per therm.⁵³ GHG emissions after implementation of Measure E1 were then calculated using the same participation rates and emission factors implemented under Measure E1 and subtracted from the post-ES2 emissions to estimate the GHG reductions produced by Measure E1.

Assumptions

- Performance goals are based on SCE's Pathway to 2045 Whitepaper electrification goals for residential and commercial space and water heating, adjusted to average end use profiles for natural gas energy consumption in residential and commercial buildings in the "Mixed-dry/Hot-dry" climate region; the 2045 performance goals were further adjusted to help unincorporated Los Angeles County achieve its 2045 emissions reduction target.
- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- There is no efficiency loss when converting natural gas to electricity.
- Existing development represents emissions and activity data in 2023.

⁵² For example, the SCE Pathway targets are 36 percent electric commercial space heating and 7 percent electric commercial water heating by 2035; in the Mixed-dry/Hot-dry climate region, space heating represents 35 percent of total commercial natural gas use and water heating represents 31 percent of total commercial natural gas use; the calculation for the total commercial building electrification target is 36 percent * 35 percent + 7 percent * 31 percent = 15 percent.

⁵³ UC Irvine Physics and Astronomy. 2021. Energy Units and Conversions. Available: <https://www.physics.uci.edu/~silverma/units.html>. Accessed November 2021.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021
- Southern California Edison, Pathway 2045 Appendices, Table 1
Link: <https://www.edison.com/home/our-perspective/pathway-2045.html>
- U.S. Energy Information Administration, 2012 Commercial Buildings Energy Consumption Survey (CBECS), Table E7
Link: <https://www.eia.gov/consumption/commercial/data/2012/index.php?view=consumption#e1-e11>
- U.S. Energy Information Administration, 2015 Residential Energy Consumption Survey (RECS), Table CE4.5
Link: <https://www.eia.gov/consumption/residential/data/2015/index.php?view=consumption#undefined>
- UC Irvine Physics and Astronomy, Energy Units and Conversions
Link: <https://www.physics.uci.edu/~silverma/units.html>
- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf> (the 2018 document was the latest available at the time the inventories were prepared)

MEASURE E2: STANDARDIZE ALL-ELECTRIC NEW DEVELOPMENT

Table B-17: Measure E2 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 7,452 |
| 2035 | 12,588 |
| 2045 | 22,639 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

This measure aims to electrify all new buildings.

Performance Objectives

The goal of Measure E2 is to start to electrify all applicable new residential and nonresidential buildings by 2030 and that most new development will be ZNE by 2030. For modeling purposes, the goal is to electrify 90 percent of new residential buildings (single-family and multifamily) by 2030, 95 percent by 2035, and 100 percent by 2045; and to electrify 90 percent of new nonresidential buildings (except large industry and food service) by 2030, 95 percent by 2035, and 100 percent by 2045. Measure E2 also has the performance goals that 90 percent of new residential buildings will be ZNE by 2030 and 90 percent of new nonresidential buildings (except large industry) will be ZNE by 2030.

Modeling Approach

The Measure E2 calculations use Adjusted BAU activity data (electricity and natural gas) and GHG emissions after implementation of Measure ES2 for new residential and nonresidential land uses as a baseline. New residential and nonresidential energy use was calculated by multiplying

the new building square footage⁵⁴ by the EUI for each land use type (single-family residential, multifamily residential, commercial, and manufacturing/industrial). GHG emissions for new development were then calculated using the same participation rates and emission factors implemented under Measure ES2. To calculate the reduction in natural gas use and increase in electricity use under Measure E2, natural gas use in applicable buildings was converted to electricity use by multiplying the number of therms consumed by the electrification percentage for each building type (residential and nonresidential) for each target year and then converting the displaced natural gas to electricity using a standard conversion factor of 29.3 kWh per therm.⁵⁵ GHG emissions after implementation of Measure E2 were then calculated using the same participation rates and emission factors implemented under Measure ES2 and subtracted from the post-ES2 emissions to estimate the GHG reductions produced by Measure E2. Electrification of new development starts in 2025 and emissions reductions in each of the target years are calculated as cumulative reductions; for example, total annual GHG emissions reductions in 2030 account for all new building electrification for the years 2025 through 2030.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in Section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- There is no efficiency loss when converting natural gas to electricity.
- Electrification of new development begins in 2025.
- Annual GHG emissions reductions for each target year (2030, 2035, and 2045) reflect all buildings electrified in all previous years (e.g., all buildings electrified from 2025–2030 contribute to annual emissions reductions in 2030).

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtq4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtq4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021
- UCLA analysis of County of Los Angeles Parcel Assessor's Data
Provided by UCLA Institute of Environmental Studies
- UC Irvine Physics and Astronomy, Energy Units and Conversions
Link: <https://www.physics.uci.edu/~silverma/units.html>
- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf> (the 2018 document was the latest available at the time the inventories were prepared)

⁵⁴ UCLA Institute of Environmental Studies. 2018. Analysis of County of Los Angeles Parcel Assessor's Data.

⁵⁵ UC Irvine Physics and Astronomy. 2021. Energy Units and Conversions. Available: <https://www.physics.uci.edu/~silverma/units.html>. Accessed November 2021.

Strategy 6: Improve Energy Efficiency of Existing Buildings

MEASURE E4: IMPROVE ENERGY EFFICIENCY OF EXISTING BUILDINGS

Table B-19: Measure E4 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 22,274 |
| 2035 | 41,255 |
| 2045 | 203,455 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Retrofit existing building stock to reduce overall County energy use.

Performance Objectives

The goal of Measure E4 is to improve the energy efficiency of existing residential and nonresidential buildings by reducing the energy use intensity (EUI) of existing buildings in unincorporated Los Angeles County below 2015 levels as follows: 20 percent for residential, 15 percent for industrial, and 25 percent for commercial by 2030; 25 percent for residential, 25 percent for industrial, and 35 percent for commercial by 2035; and 50 percent for residential, 50 percent for industrial, and 50 percent for commercial by 2045.

Modeling Approach

The Measure E4 calculations use the activity data (electricity and natural gas) and GHG emissions for existing residential and nonresidential land uses after implementation of Measure ES2 (Procure Zero Carbon Electricity) and Measure ES3 (Increase Renewable Energy Production) as a baseline. The baseline year for existing development is assumed to be 2023 because that is the earliest date that the 2045 CAP could be adopted and go into effect. In other words, Measure E4 would apply to the built environment through the end of 2022. This new “baseline” energy use was then multiplied by an assumed eligibility rate (i.e., the portion of buildings eligible for retrofits [based on building vintage, incentives available, income level, etc.]) and then by the participation rate (i.e., the portion of eligible residential and nonessential buildings actually performing a retrofit) to determine the total building energy usage subject to energy retrofits under Measure E4. Electricity and natural gas savings resulting from implementation of Measure E4 were then calculated by multiplying these energy usage values (electricity and natural gas) by the percent improvement in EUI for each target year under Measure E4 implementation. Electricity and natural gas emissions before implementation of Measure E4 were calculated using the same participation rates and emission factors implemented under Measure ES2 and Measure ES3. GHG emissions after implementation of Measure E4 were then calculated using the same participation rates and emission factors implemented under Measure ES2 and Measure ES3 and subtracted from the post-ES3 emissions to estimate the GHG reductions produced by Measure E4. GHG emissions for natural gas savings were calculated using the emission factors of 0.00531 MTCO₂e per therm for residential and commercial buildings and 0.00532 MTCO₂e per therm for industrial buildings.

Assumptions

- CPA and SCE emission factors for electricity are the same as those reported in section B.1 above.
- CPA participation rates after implementation of Measure ES2.
- Existing building stock represents the built environment through the year 2023.
- The energy efficiency eligibility rate is 25 percent for both residential and nonresidential buildings in 2030 and 2035 and 50 percent for both residential and nonresidential buildings in 2045.
- The participation rate for eligible buildings is 40 percent in 2030, 60 percent in 2035, and 90 percent in 2045. When applied to the percentage of buildings that are eligible for a retrofit, 10 percent of buildings are retrofitted by 2030, 15 percent of buildings are retrofitted by 2035, and 45 percent of buildings are retrofitted by 2045.
- The reduction in EUI is based on 2015 average County EUI values.

Data Sources

- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)
- CPA Member Status Report, July 28, 2021
- Climate Registry
Link: <https://www.theclimateregistry.org/wp-content/uploads/2018/06/The-Climate-Registry-2018-Default-Emission-Factor-Document.pdf> (the 2018 document was the latest available at the time the inventories were prepared)

Strategy 7: Conserve Water

MEASURE E6: REDUCE INDOOR AND OUTDOOR WATER CONSUMPTION

Table B-20: Measure E6 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 10,575 |
| 2035 | 15,122 |
| 2045 | 11,764 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Reducing indoor and outdoor water consumption is essential as the state experiences longer and more severe droughts. Not only will water conservation improve regional resiliency, but it will also reduce GHG emissions through the reduction of energy consumption associated with processing, treatment, and the conveyance of water and wastewater.

Performance Objectives

The goal of Measure E6 is to reduce water use to less than 110 gallons per capita per day (GPCD) by 2030, less than 100 GPCD by 2035, and less than 75 GPCD by 2045.

Modeling Approach

Water use and the associated energy use (electricity and natural gas) to distribute and treat water supplied to unincorporated Los Angeles County were estimated for both the Adjusted BAU forecast scenario and the Measure E6 implementation scenario. Metropolitan Water District of

Southern California's (MWD's) historical water use was used as a proxy for unincorporated Los Angeles County.⁵⁶ Water use in gallons per capita per day (GPCD) under the Adjusted BAU forecast was projected for each future year using unincorporated Los Angeles County's population and MWD's 2019 per capita water use (121 GPCD), which was then converted to acre-feet per year (AF/yr). Water use associated with the implementation of Measure E9 was estimated using the target GPCD (listed above) and population, which was then converted to AF/yr.

The electricity and natural gas use resulting from each of the water use scenarios (Adjusted BAU and Measure E9 implementation) was estimated for both residential and nonresidential land uses. Energy intensity factors from The Pacific Institute's *The Future of California's Water-Energy-Climate Nexus* report were used to estimate the energy use associated with the treatment, distribution, end-use, and collection of water in the region, as well as the treatment of the resulting wastewater.⁵⁷ Data from the Los Angeles County Waterworks Districts 2020 Urban Water Management Plan were used to get the following regionally specific information, which was then applied to each water use scenario: the ratio of total water demand met by locally pumped groundwater (31 percent), the ratio of total water used that is collected as wastewater (59 percent), the ratio of collected wastewater that goes through secondary treatment (100 percent), and the water used by residential versus nonresidential land uses (76 percent and 24 percent, respectively).^{58,59} Averages were used to estimate the amount of residential water that is heated versus nonresidential water that is heated.^{60,61}

To estimate the GHG reductions associated with Measure E6, GHG emissions associated with following two scenarios were quantified and the difference between the two was taken: implementation of Measures ES2, E1, E2, and ES3 and implementation of Measures ES2, E1, E2, ES3, and E6. In each scenario, water use was assigned to existing or new development using forecasted residential and nonresidential land use percentages. To account for implementation of Measure E1, the appropriate percentage of natural gas use associated with water use in existing development was converted to electricity use. For example, 25 percent of residential natural gas use (therms) associated with water use in existing development was converted to kWh and added to existing residential development's electricity use associated with water. The electricity use resulting from implementation of Measure E1 (electricity use associated with water use in existing residential and nonresidential development) was then multiplied by emission factors which accounted for Measures ES2 and ES3; i.e., the percentage of electricity supplied by solar and the participation rate in each tier of CPA electricity. The natural gas use resulting from implementation of Measure E1 was multiplied by standard emission factors associated with each land use type. To account for implementation of Measure E2, all natural gas use associated with water use in new development was converted to electricity and added to new development's electricity use associated with water. The combined electricity use resulting from implementation of Measure E2 was then multiplied by emission factors which accounted for

⁵⁶ Metropolitan Water District of Southern California. 2021. *2020 Urban Water Management Plan*. June 2021. Available: <https://www.mwdh2o.com/media/21641/2020-urban-water-management-plan-june-2021.pdf>. Accessed November 2021.

⁵⁷ The Pacific Institute. 2021. *The Future of California's Water-Energy-Climate Nexus*. September 2021. Available: https://pacinst.org/wp-content/uploads/2021/09/Water-Energy-Report_Sept-2021.pdf. Accessed November 2021.

⁵⁸ Los Angeles County Waterworks Districts. 2021. *2020 Urban Water Management Plans*. October 2021. Available: <https://dpw.lacounty.gov/wwd/web/Publications/WMP.aspx>. Accessed November 2021.

⁵⁹ California Department of Water Resources. 2022. Water Use Efficiency Data Portal. Available: <https://wuedata.water.ca.gov/default.asp>. Accessed November 2021.

⁶⁰ Water Research Foundation. 2016. *Residential End Uses of Water*, Version 2, Executive Report. April 2016. Available: https://www.circleofblue.org/wp-content/uploads/2016/04/WRF_REU2016.pdf. Accessed November 2021.

⁶¹ Yudelson, 2010. Available: <http://greenbuildconsult.com/pdfs/GreenWater.pdf>. Accessed November 2021.

Measures ES2 and ES3; i.e., the percentage of electricity supplied by solar and the participation rate in each tier of CPA electricity. Emissions associated with existing development were then summed with emissions associated with new development for each scenario.

Assumptions

- Unincorporated Los Angeles County’s water use profile is equivalent to that of MWD.
- The County falls within the South Coast and South Lahontan water regions, thus energy intensity factors for each region were averaged.
- The County’s water use profile can be represented by Los Angeles County Waterworks Districts data.
- No efficiency losses result from natural gas conversion to electricity (Measure E1).
- 33 percent of residential indoor water use is heated and 22 percent of nonresidential indoor water use is heated.
- CPA and SCE emission factors for electricity are the same as those reported in Section B.1 above.
- CPA participation rates after implementation of Measure ES2.

Sources

- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>
- MWD 2020 Urban Water Management Plan
Link: <https://www.mwdh2o.com/media/21641/2020-urban-water-management-plan-june-2021.pdf>
- Los Angeles County Waterworks Districts 2020 Urban Water Management Plan
Link: <https://dpw.lacounty.gov/wwd/web/Publications/WMP.aspx>
- Water Use Efficiency Data (WUEdata) Portal
Link: https://wuedata.water.ca.gov/uwmp_export_2020.asp
- Water-Energy-Climate Nexus Report
Link: https://pacinst.org/wp-content/uploads/2021/09/Water-Energy-Report_Sept-2021.pdf
- Residential End Uses of Water Report
Link: https://www.circleofblue.org/wp-content/uploads/2016/04/WRF_REU2016.pdf
- SCE Emission Factors
Link: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-esg-pilot-quantitative-section-sce.pdf>
- CPA Emission factors
Link: (account required for download): [https://cris4.org/\(S\(rtuopf12t5k5ymsx3rurxtg4\)\)/frmLILogin.aspx](https://cris4.org/(S(rtuopf12t5k5ymsx3rurxtg4))/frmLILogin.aspx)

Waste

Strategy 8: Minimize Waste and Recover Energy and Materials from the Waste Stream

MEASURE W1: INSTITUTIONALIZE SUSTAINABLE WASTE SYSTEMS AND PRACTICES

Table B-21: Measure W1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 154,514 |
| 2035 | 248,362 |
| 2045 | 342,934 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Undertake actions that result in sustainable waste systems Countywide. Responsible and sustainable waste practices are learned behaviors, which the County can facilitate through outreach, education, and mandates. Increase diversion of recyclable materials and organics from landfills through ordinances, service improvements, education and outreach, and promotion of product stewardship and markets for material reuse. An increased diversion rate indirectly reduces the demand for virgin materials, which reduces the life-cycle carbon intensity of any resulting products. Through action taken at the County level, waste-conscious habits and thoughtful consumption can become the default.

Performance Objectives

The goal of Measure W1 is to increase the total unincorporated Los Angeles County waste diversion rate to 85 percent by 2030, 90 percent by 2035, and 95 percent by 2045.

Modeling Approach

Target waste disposal in units of tons per capita per year were estimated for each future year using the BAU annual waste generation rate per capita (3.0 tons per person per year in 2030 and 3.1 tons per person per year in 2035 and 2045), the BAU average diversion rates (75 percent for 2030, 2035, and 2045), and the target diversion rates (85 percent in 2030, 90 percent in 2035, and 95 percent in 2045). These target disposal rates were then converted to total reduction in landfilled waste in tons, compared to the BAU landfilled waste tonnages, using forecasted population. A ratio of BAU waste disposal and BAU emissions to targeted waste disposal was then used to estimate the emissions associated with waste disposal once Measure W1 has been implemented. To estimate reductions associated with new development versus existing development, a ratio of incremental population growth to total population in each of the target years was used.

Assumptions

- The BAU solid waste disposal rates are 3.0 tons per person per year in 2030 and 3.1 tons per person per year in 2035 and 2045.
- The BAU solid waste diversion rate is 75 percent in 2030, 2035, and 2045.
- Solid waste diversion rate and organics diversion rate are assumed to remain constant at 75 percent and 38 percent, respectively.
- For each ton of solid waste not placed in a landfill, 0.44 MTCO₂e is saved (based on the Adjusted BAU forecast for the waste sector; see Appendix A).

Sources

- CARB FOD Model
Link: <https://ww2.arb.ca.gov/resources/documents/landfill-methane-emissions-tool>
- CalRecycle SWIS Reports
Link: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>
- LADPW SWIMS Reports
Link: <https://dpw.lacounty.gov/epd/swims/OnlineServices/reports.aspx>
- CalRecycle Landfill Gas Master
Link: <https://www2.calrecycle.ca.gov/PublicNotices/Documents/1642>
- SCAG Population Projections
Link: <http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting>

Agriculture, Forestry, and Other Land Use

Strategy 9: Conserve and Connect Wildlands and Working Lands

MEASURE A1: CONSERVE FORESTS, WOODLANDS, SHRUBLANDS, GRASSLANDS, DESERT, AND OTHER CARBON-SEQUESTERING WILDLANDS AND WORKING LANDS

Table B-22: Measure A1 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 8,953 |
| 2035 | 17,906 |
| 2045 | 26,858 |

Abbreviations: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County.

Performance Objectives

The goal of Measure A1 is to reduce the amount of natural land converted for urban uses 25 percent below current (2018) levels by 2030, 50 percent by 2035, and 75 percent by 2045; this is equivalent to conserving natural lands that would have otherwise been converted for urbanized uses by 53 hectares annually by 2030, 106 hectares annually by 2035, and 159 hectares annually by 2045.

Modeling Approach

The Adjusted BAU forecast assumes that 212 hectares of forest land are converted to a new land use each year, which releases carbon stored in the removed biomass. GHG emissions reductions from Measure A1 were calculated by decreasing the amount of forest land conversion in each future year and multiplying by an emission factor for land conversion. For each hectare of natural land converted to other uses, a one-time emission of 169 MTCO₂e per hectare would occur (see Appendix A for discussion).⁶² The number of hectares saved from conversion under Measure A1 for each future year was multiplied by the one-time emission rate of 169 MTCO₂e to calculate GHG emissions reductions for this measure.

Assumptions

- 212 hectares of natural land is converted annually in the Adjusted BAU forecast.
- For each hectare of natural land saved from conversion, avoided emissions would be 169 MTCO₂e.

References

- NASS, 2021. CropScape.
Link: <https://nassgeodata.gmu.edu/CropScape/>

⁶² NASS. 2021. CropScape. Available: <https://nassgeodata.gmu.edu/CropScape/>. Accessed January 2021.

Strategy 10: Sequester Carbon and Implement Sustainable Agriculture

MEASURE A3: EXPAND UNINCORPORATED LOS ANGELES COUNTY’S TREE CANOPY AND GREEN SPACES

Table B-23: Measure A3 GHG Reductions

| YEAR | GHG REDUCTIONS (MTCO ₂ E) |
|------|--------------------------------------|
| 2030 | 4,602 |
| 2035 | 7,080 |
| 2045 | 10,310 |

Abbreviations: GHG = greenhouse gas;
MTCO₂e = metric tons of carbon dioxide equivalent.

Description

Create an Urban Forest Management Plan to plant trees, increase unincorporated Los Angeles County’s tree canopy cover, add green space, and convert impervious surfaces.

Performance Objectives

The goal of Measure A3 is to plant 130,000 total new trees by 2030, plant 200,000 total new trees by 2035, and plant 270,000 total new trees by 2045.

Modeling Approach

The performance goals for Measure A3 were developed using the following steps:

1. Unincorporated Los Angeles County’s current urban tree canopy cover is estimated to be 10.7 percent based on the Tree People 2016 LA Tree Canopy Report. Estimates by land use type are 13 percent residential, 9 percent commercial, 4 percent industrial, and 10 percent for public/semi-public, mixed use, specific plan, and other land use types.
2. The current urban area estimate is 158,889 acres from Table 6.1 of the General Plan Land Use Element for the categories above.
3. Applying the canopy cover of 10.7 percent to the total urban area acreage yields 16,943 acres of tree canopy.
4. The goal is to increase urban tree canopy cover 10 percent by 2030, 15 percent by 2035, and 20 percent by 2045. This yields an additional 1,694 new acres of tree canopy coverage by 2030, 2,542 acres by 2035, and 3,389 acres by 2045.
5. According to a 2015 study, one acre of tree canopy coverage has approximately 80.5 trees.
6. This yields 136,394 total new trees planted by 2030, 204,591 total new trees planted by 2035, and 272,788 total new trees planted by 2045 (rounded to the nearest 10,000).

Measure A3 GHG emissions reductions were calculated using assumptions from CALEEMod.⁶³ The calculations assume a carbon sequestration rate per tree planted (from CalEEMod) and an

⁶³ California Air Pollution Control Officers Association. 2021. *CalEEMod v 2020.4.0 User’s Guide*, Appendix A Calculation Details. May 2021. Available: <http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6>. Accessed November 2021.

active growing period of 20 years for each tree, after which the tree no longer stores additional carbon. The calculation also assumes a total number of trees planted for each target year, based on the performance objectives above. The number of trees planted each year was then multiplied by the growing period and sequestration rate to estimate the overall GHG reductions from Measure A3 for each target year.

Assumptions

- Tree growing period of 20 years.
- The carbon sequestration rate remains constant for each year for each tree planted.
- The carbon sequestration rate is the average rate for all species classes included in CalEEMod.

References

- California Air Pollution Control Officers Association, CalEEMod v2020.4.0 User's Guide, Appendix A Calculation Details
Link: <http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6>
- Tree People, Los Angeles County Tree Canopy Assessment
Link: <https://www.treepeople.org/wp-content/uploads/2020/08/Tree-Canopy-LA-2016-Final-Report.pdf>
- Lund, H. G., 2015, Canopy Cover, Trees per Acre, Crown Width, and Tree Spacing
Link: https://www.researchgate.net/publication/288335361_Canopy_Cover_Trees_per_Acre_Crown_Width_and_Tree_Spacing

B.3 Attachment A: Fehr & Peers Modeling Analysis

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Memorandum

Date: February 22, 2023

To: Brian Schuster, Breanna Sewell, Renee Longman, and Jeff Caton, ESA

From: Ali Kothawala, Miguel Nunez, and Sarah Brandenburg, Fehr & Peers

Subject: LA County 2045 Climate Action Plan Update - VMT Technical Memorandum

LA21-3290

Introduction

Purpose of transportation analysis in Climate Action Plan Quantification

The Draft 2045 LA County Climate Action Plan (CAP) actions and targets are informed by a robust data and analysis process. Data was collected for each of the topic areas and analyzed to help inform and develop actions and targets, and create meaningful, measurable, and trackable indicators. Land use and transportation actions that help reduce VMT include bike, ped, and transit improvements, transportation demand management programs, and land use design and density.

This current effort is applying and quantifying estimated benefits of CAP strategies for VMT reductions using a state-of-the-practice approach from the California Air Pollution Control Officers Association (CAPCOA) GHG Handbook

The purpose of this technical memorandum is to present the methodology and assumptions applied for quantifying estimated VMT reductions of selected transportation demand management (TDM) strategies contained in the CAP. The project team developed a list of various TDM strategies as part of the CAP, the strategies were narrowed based on applicability and available data, and the corresponding VMT reductions were estimated using the CAPCOA GHG Reductions Handbook¹ (December 2021).

¹ Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, California Air Pollution Control Officers Association, December 2021. Last accessed January 3, 2022, at <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>



VMT from Prior CAP Effort

F&P developed an inventory of the VMT and GHG emitted in Los Angeles County in support of the previous Los Angeles County Sustainability Plan (OurCounty). The VMT and emissions analysis for the OurCounty utilized data inputs and outputs from the SCAG regional travel demand model. Emissions were calculated through use of the EMFAC model. The current update to the CAP builds off prior efforts and Buro Happold used the OurCounty VMT projections as the basis for providing forecasts for the year 2045.

VMT Reductions Approach

CAPCOA Overview

TDM strategies have been determined to be among the most effective for reducing VMT. TDM strategies are reductions available from certain types of project site modifications, programming, and operational changes. The effectiveness of identified TDM strategies builds on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). The 2010 CAPCOA GHG Handbook was recently updated and the final version was published in December 2021. The CAPCOA Handbook contains detailed equations to apply these TDM reductions given the land use type and built environment context. The Handbook provides a percentage range (minimum-maximum) on the expected VMT reduction for each individual TDM strategy. In addition, some TDM strategies have complementary benefits reducing VMT, and need to be considered in combination, and not individually.

Data Sources (land use, transit, and bike facilities)

In order to apply the appropriate VMT percent reduction for each TDM strategy listed below, certain inputs are required that describe the land use type, built environment context, and characteristics of the TDM strategy. The inputs were provided to Fehr &Peers by LA County staff, and where information was not available, assumptions were made based on the default values provided in the CAPCOA Handbook.

- **Land Use:**
 - Increase residential/job density
 - Provide transit-oriented development (TOD) near high-quality transit areas (HQTA)



- *Data sources:* LA County provided F&P a GIS shapefile layer showing the 2029 Housing Element Rezone Areas. F&P used a major transit stop² GIS layer that was developed as part of the LA County SB 743 VMT Tool released in late 2020.
- **Transit service:**
 - Increase transit service hours
 - Provide treatments to enhance existing transit routes
 - Improve county shuttle system
 - *Data sources :* LA Metro NextGen Plan³ and LA Metro LRTP⁴
- **Bike Facilities:**
 - Increase the number of bikeway miles
 - *Data sources:* Los Angeles County Bike Master Plan 2012.⁵

² "Major transit stop" is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (CA Public Resource Code, § 21064.3).

³ LA Metro NextGen Bus Plan, Los Angeles Metropolitan Transportation Authority, October 2020. Last accessed on January 03, 2022, at <https://www.metro.net/about/plans/nextgen-bus-plan/>

⁴ 2020 Long Range Transportation Plan, Los Angeles Metropolitan Transportation Authority, Mar 2020. Last accessed on January 03, 2022, at <https://www.metro.net/about/plans/long-range-transportation-plan/>

⁵ Bicycle Master Plan, County of Los Angeles Public Works, March 2012. Last accessed January 3, 2022, at <https://pw.lacounty.gov/tpp/bike/docs/bmp/FINAL%20Bicycle%20Master%20Plan.pdf>



Applying VMT reductions

Data Sources and Quantifying VMT Reductions with CAPCOA

To quantify VMT reductions, appropriate equations were used based on factsheets in the CAPCOA handbook. Using the data obtained from sources identified in the previous section as inputs, percent reductions in VMT were estimated. However, not all reductions can be applied to all or total VMT. VMT resulting from light-duty vehicles is often categorized by trip purpose. Different VMT measures based on their nature and scope of application may apply either to one or more categories of the total combined light-duty vehicle VMT. For example, commuter subsidies are most likely to reduce home-based work VMT for employees and less likely to reduce VMT for retail patrons. In a similar vein, VMT reduction benefits accrue based on the geographic extent and context in which the strategy is applied. For instance, providing bicycle, pedestrian, and transit infrastructure will likely have more benefit in an urban than rural area. Not all measures will have a countywide effect. After identifying data sources, VMT reduction strategies, and the scope of each reduction, the VMT reduction estimates were finalized.

To estimate VMT reductions, implementing actions in the Draft GHG Reduction Measures Recommendations Memo (June 16, 2021) were first screened to identify actions whose reduction can be quantified. While most actions can be quantified, the level of detail needed to provide a detailed VMT estimate was not available; therefore, five quantifiable actions across the three categories were used for the CAP's VMT reduction estimate. This is not to say that the screened-out actions hold little or no GHG reduction potential. Like Supporting or Non-Quantified Reduction Measures enlisted in the Handbook, non-quantified VMT reduction actions although not quantitatively evaluated "may achieve emissions reductions and co-benefits on their own or may enhance the ability of quantified measures to attain expanded reduction and co-benefits." Table 1 summarizes the final list of quantifiable measures and implementing actions under each strategy and corresponding information such as the applicable CAPCOA strategy maximum VMT reduction that can be claimed under the strategy, data inputs required to quantify the benefit, assumptions made where needed, the equation used to estimate VMT reduction, and scope of application for geography and trip purpose.

Table 1. Quantifiable GHG Reduction Measures and corresponding VMT Reduction Category and Scope

| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|--|--|--|--|--|--|
| <i>Strategy 2: Increase densities and diversity of destinations with an emphasis near transit</i> | | | | | | |
| Measure T1: Increase Density Near High-Quality Transit Areas | | | | | | |
| Increasing residential density, particularly near transit and affordable housing, is shown to reduce VMT. | Number and percent of increase in DUs in HQTAs, Specific Plans, or Area Plans | T-1 – Increase Residential Density. Up to 30% GHG emissions from VMT, depending on project DU per acre | Project DU per acre & typical DU per acre | Densities range from 20 DU per acre to 50 to 70 DU per acre. 9.1 DU/acre for typical density | 20 du/acre : (20-9.1) /9.1 x -0.22 = <u>-26.4% reduction</u> | Home-Based VMT in TOD Areas |
| Implementing Actions | | | | | | |
| T1.2 – Incentivize and prioritize development within | <ul style="list-style-type: none"> • Increase in DUs within HQTAs • DU per acre Change in number of jobs and housing in non- HQTAs | T-3 – Provide Transit-Oriented Development | (B) Transit & (D) auto mode share in surrounding City, and (C) Ratio of transit mode share for TOD | 27% measure maximum (B x C) & 85% auto mode share based on 2012 CHTS (D) | 27% / -85% = <u>-31.8% reduction (use maximum 31%)</u> | Total VMT in TOD Areas |



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|--|---|--|--|---|--|--|
| (HQTA) ⁶ , while ensuring inclusion of vital public amenities such as parks and active transportation infrastructure. | | (TOD) ⁷ . Up to 31% of GHG emissions from project VMT. | area with measure compared to existing transit mode share in surrounding city | | | |
| Measure T2: Develop Land Use Plans Addressing Jobs/Housing Balance & Increase Mixed Use | | | | | | |
| Increasing density and diversity of destinations can help reduce single occupancy | Change in number of jobs and housing in non-HQTAs | T-2 – Increase Job Density. Up to 30% GHG emissions from VMT, depending on project jobs per acre | Job density of typical development = 145 jobs per acre, & Elasticity of VMT with respect | Project job density = 300 jobs per acre | $(300-145)/145 \times -0.07 =$ <u>-7.5% reduction</u> | This strategy overlaps with the TOD strategy above where we assume 31% Total VMT |

⁶ High Quality Transit Areas: Areas within one half mile of a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

⁷ To be considered TOD, a development must be within a 10-minute walk (0.5 mile) of a high frequency transit station (rail, or bus with headways less than 15 minutes)



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|---|--|--------------------------------------|--|--------------------------------|--|
| trips, the number of trips, and trip lengths | | | to job density = -0.07 | | | Reduction at TOD sites. No reduction here. |
| Strategy 3: Reduce single-occupancy vehicle trips | | | | | | |
| Measure T3: Expand Bicycle & Pedestrian Network to Serve Residential, Employment, & Recreational Trips | | | | | | |
| Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles. | T-17 – Provide Pedestrian Network Improvement. Up to 6.4% GHG emissions from vehicle travel, depending on length of existing and planned facilities T-19 – Expand Bikeway Network. | <ul style="list-style-type: none"> • Miles of bikeway type • Miles of transit routes • Headways | | | | |
| Implementing Actions | | | | | | |
| T3.2 – Create a more connected and | <ul style="list-style-type: none"> • Miles of bikeway type | T-19 – Expand Bikeway Network. Up to 0.5% GHG emissions from | Miles of existing & planned bikeways | LA County Bike Plan proposes significant | -0.5% Maximum Reduction | Total VMT Countywide |



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|--|--|--|-----------------------------|--|--|--|
| safer bikeway network by expanding bikeway facilities and deploying protected and separated lanes. | <ul style="list-style-type: none"> Additional employees or residents served Number of cities collaborated with to inform key areas for bicycle infrastructure expansion Number of funding sources identified or % of funding secured | vehicle travel, depending on length of existing and planned facilities | | increases in bikeway miles. This analysis applies a 300% increase in bikeway miles by 2035. The maximum possible reduction of 0.5% is estimated based on the extent of network improvements outlined in the 2012 Bike Plan | | (unincorporated areas) |
| Measure T4: Encourage Transit, Active Transportation, & Alternative Modes of Transportation | | | | | | |
| Implementing Actions | | | | | | |
| T4.1 – Expand and improve frequency of | <ul style="list-style-type: none"> Size of area served | T-24 – Extend Transit Network Coverage or Hours. Up to 4.6% of | Total transit service hours | Assume transit mode share of 4.6% per 2012 | $-1 \times (1.12M-560K)/560K \times 4.6\% \times 0.7 \times 57.8\% \times 1 =$ <u>-1.9% Reduction</u> | Total VMT Countywide |



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|--|---|---|--|--|--|
| existing network of County shuttles and explore new mobility services, such as micro transit ⁸ , in unincorporated County areas. | <ul style="list-style-type: none"> • Number of employees and residents served • Service frequency and headways | GHG emissions from vehicle travel, depending on increase in transit service hours or miles and the transit mode share in the community. | before & after expansion | CHTS; Assume 560,000 existing transit service hours in unincorporated county & 1.12 million after expansion based on Metro NextGen | | (unincorporated areas) |
| T4.2 – Collaborate with Metro and other transit providers to install bus-only lanes and | <ul style="list-style-type: none"> • Increase in headways or frequencies • Increase in headways | T-26 – Implement Transit-Supportive Roadway Improvements. Up to 0.6% GHG emissions from vehicle travel, depending on the | Percent of transit routes that receive treatments | Assume transit mode share of 4.6% per 2012 CHTS, 85% for auto; Assume major transit | $-1 \times (100\% \times -10 \times -0.4 \times 4.6\% \times 57.8\%) / 85\% =$ <p><u>-12.5% Reduction</u> (use maximum <u>-0.6%</u>)</p> | Total VMT in TOD Areas/HQTA Stops |

⁸ Micro transit is public or private multi-passenger transportation services that serve passengers using dynamically generated routes; they provide transit-like service on a smaller, more flexible scale.



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|--|---|--------------------|--|--------------------------------|--|
| signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate. | <ul style="list-style-type: none"> • Increase in residents/employees served • Travel time reliability • Creation of new HQTAs | percent of transit routes that receive improvements. | | thoroughfares in unincorporated county will receive treatments such as bus only lanes and/or signal prioritization | | |

CAPCOA Analysis and Findings

VMT is calculated at the transportation analysis zone (TAZ) level. TAZs are comparable in size and shape to census tracts or block groups depending on the travel demand model used and level of modeling detail. Once the percent VMT reductions were determined, based on the geographic scope and VMT category of each implementation action, the appropriate VMT was aggregated across the county or specific geographic sub areas, such as the TAZs within which transit enhancements would take place. Actions T3.2 and T4.1 were applied countywide. For the remaining actions, only the VMT generated in TAZs whose geographic area overlapped with the location of the infrastructure or land use strategy were included. Percent reductions were then applied to appropriate VMT sub-totals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045). Table 2 shows reductions for each quantifiable implementation action for the analysis years.

Based on the methodology outlined in the CAPCOA Handbook, when determining the overall VMT reduction, the VMT reduction is separately calculated for each of the individual strategies should be dampened, or diminished, according to a multiplicative formula to account for the fact that some of the strategies may be redundant or applicable to the same populations. The multiplicative equation to accomplish this adjustment is as follows:

$$\text{Overall \% VMT Reduction} = 1 - (1 - A) * (1 - B) * (1 - C) * (1 - D) \dots$$

where A, B, C, D ... = individual mitigation strategy reduction percentages

For example, if two strategies were proposed with corresponding VMT reductions of 20% and 10%, the equation would be $[1 - (1 - 20\%) * (1 - 10\%)]$ or $[1 - (80\% * 90\%)]$, which equates to a 28% reduction rather than the 30% reduction that would otherwise be seen with a direct sum. Therefore, the overall VMT reduction was calculated as a dampened, or diminished, total according to the equation above, which produces a conservative overall estimate.

$$A = 1.38\%; \quad B = 1.97\%; \quad C = 0.15\%; \quad D = 0.57\%; \quad E = 0.01\%$$

$$\text{Overall \% VMT Reduction} = 1 - (1 - 0.0138) * (1 - 0.0197) * (1 - 0.0015) * (1 - 0.0057) * (1 - 0.0001) = 4.03\%$$

Based on the application of VMT reductions and dampening factor, the reduction of 4.03% would result in a total adjusted total daily VMT of 18,798,031 VMT in 2035, for example.

Table 2. VMT Reductions per Quantifiable Implementation Action for Analysis Years 2030, 2035, and 2045

| Reduction Category | Reduction Percent | VMT Applied to | Geography Applied to | Daily VMT Reduction | | | Reduction as a share of Total County VMT |
|--|-------------------|----------------|------------------------|---------------------|-------------------|-------------------|--|
| | | | | 2030 | 2035 | 2045 | |
| M1T1 Increase Residential Density in HQTAs | 26.4 | Home-based VMT | TAZs intersecting TODs | 267,982 | 269,689 | 273,103 | 1.38% |
| T1.2 Incentivizing and Promoting HQTAs | 31 | Total VMT | TAZs intersecting TODs | 383,838 | 386,283 | 391,172 | 1.97% |
| T3.2 Pedestrian and Bikeway Network Improvements | 0.5 | Total VMT | Unincorporated County | 0 | 29,133 | 29,502 | 0.15% |
| T4.1 County Shuttles | 1.9 | Total VMT | Unincorporated County | 110,005 | 110,706 | 112,107 | 0.57% |
| T4.2 Bus-only and signal prioritization | 0.6 | Total VMT | TAZs intersecting TODs | 2,303 | 2,318 | 2,347 | 0.01% |
| Subtotal for VMT Reductions | | | | 764,128 | 798,128 | 808,231 | |
| Total Daily VMT (Pre-VMT reductions) | | | | 19,442,787 | 19,596,159 | 19,902,905 | 4% |
| Total Daily VMT (Post-VMT reductions) | | | | 18,678,659 | 18,798,031 | 19,094,674 | |

5. Conclusion

The estimated benefits of CAP strategies for VMT reductions were quantified using a state-of-the-practice approach from the California Air Pollution Control Officers Association (CAPCOA) GHG Handbook. GHG reduction measures and Implementing actions were first screened to identify those that can be quantified. Using travel demand forecasting results from the SCAG regional travel demand model, County VMT data were used, based on trip purpose and geography, to estimate benefits from CAP actions.

While several strategies have significant reduction potential of up to 30%, like those that involve increasing residential density, the measures are applied to a portion of the unincorporated county and therefore accrue a net reduction of less than 2% countywide. When accounting for a combined effect, the effectiveness of each measure could be dampened by the existence of a similar overlapping measure. By estimating VMT that more closely reflects the travel to be likely affected by a certain measure, possibilities of overlaps have been minimized. Even then, a dampening factor was applied above to show the total reduction estimate that accounts for dampening arrives at a similar VMT reduction estimate. This analysis will support the analysis and quantification of benefits from the CAP for Los Angeles County and its residents.

LA COUNTY CAP VMT REDUCTION ESTIMATE SUMMARY

revised 2/22/23

| Reduction Category | Reduction% | VMT Applied to | Geography Applied to | 2030 | | 2035 | | 2045 | |
|---|------------|----------------|------------------------|---------------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|
| | | | | Daily VMT Reduction | Adjusted Total Daily VMT | Daily VMT Reduction | Adjusted Total Daily VMT | Daily VMT Reduction | Adjusted Total Daily VMT |
| Residential Density | 26.4 | HBVMT | TAZs intersecting TODs | 267,982 | 18,678,659 | 269,689 | 18,798,031 | 273,103 | 19,094,674 |
| HQTA | 31 | LMV OD VMT | TAZs intersecting TODs | 383,838 | | 386,283 | | 391,172 | |
| Pedestrian and Bikeway Network Improvements | 0.5 | LMV OD VMT | Unincorporated County | - | | 29,133 | | 29,502 | |
| County Shuttles | 1.9 | LMV OD VMT | Unincorporated County | 110,005 | | 110,706 | | 112,107 | |
| Bus-only and signal prioritization | 0.6 | LMV OD VMT | TAZs intersecting TODs | 2,303 | | 2,318 | | 2,347 | |

Unincorporated LA County Pre-VMT Reductions

| PA (OD) VMT | LMV | HDT | All |
|-------------|------------|---------|------------|
| 2016 | 18,343,532 | 669,811 | 19,013,343 |
| 2030 | 18,676,608 | 766,179 | 19,442,787 |
| 2035 | 18,795,563 | 800,596 | 19,596,159 |
| 2045 | 19,033,475 | 869,430 | 19,902,905 |

Unincorporated LA County WITH VMT Reductions

| PA (OD) VMT | LMV | HDT | All |
|-------------|------------|---------|------------|
| 2030 | 17,912,480 | 766,179 | 18,678,659 |
| 2035 | 17,997,435 | 800,596 | 18,798,031 |
| 2045 | 18,225,244 | 869,430 | 19,094,674 |

% Reduction

| | |
|------|----|
| 2030 | 4% |
| 2035 | 4% |
| 2045 | 4% |

Appendix E

Noise

Federal Highway Administration Roadway Construction Noise Model (RCNM)

Construction Equipment Reference Noise Levels
From: User's Guide (2006), Table 1.

Table 1. CA/T equipment noise emissions and acoustical usage factors database.

| CA/T Noise Emission Reference Levels and Usage Factors | | | | | |
|---|----------|-----------------------|--------------------------|-----------------------------|----------------------------|
| filename: EQUIPLST.xls | | | | | |
| revised: 7/26/05 | | | | | |
| | Impact | Acoustical Use Factor | Spec 721.560 Lmax @ 50ft | Actual Measured Lmax @ 50ft | No. of Actual Data Samples |
| Equipment Description | Device ? | (%) | (dBA, slow) | (dBA, slow) | (Count) |
| | | | | (samples averaged) | |
| All Other Equipment > 5 HP | No | 50 | 85 | -- N/A -- | 0 |
| Auger Drill Rig | No | 20 | 85 | 84 | 36 |
| Backhoe | No | 40 | 80 | 78 | 372 |
| Bar Bender | No | 20 | 80 | -- N/A -- | 0 |
| Blasting | Yes | -- N/A -- | 94 | -- N/A -- | 0 |
| Boring Jack Power Unit | No | 50 | 80 | 83 | 1 |
| Chain Saw | No | 20 | 85 | 84 | 46 |
| Clam Shovel (dropping) | Yes | 20 | 93 | 87 | 4 |
| Compactor (ground) | No | 20 | 80 | 83 | 57 |
| Compressor (air) | No | 40 | 80 | 78 | 18 |
| Concrete Batch Plant | No | 15 | 83 | -- N/A -- | 0 |
| Concrete Mixer Truck | No | 40 | 85 | 79 | 40 |
| Concrete Pump Truck | No | 20 | 82 | 81 | 30 |
| Concrete Saw | No | 20 | 90 | 90 | 55 |
| Crane | No | 16 | 85 | 81 | 405 |
| Dozer | No | 40 | 85 | 82 | 55 |
| Drill Rig Truck | No | 20 | 84 | 79 | 22 |
| Drum Mixer | No | 50 | 80 | 80 | 1 |
| Dump Truck | No | 40 | 84 | 76 | 31 |
| Excavator | No | 40 | 85 | 81 | 170 |
| Flat Bed Truck | No | 40 | 84 | 74 | 4 |
| Front End Loader | No | 40 | 80 | 79 | 96 |
| Generator | No | 50 | 82 | 81 | 19 |
| Generator (<25KVA, VMS signs) | No | 50 | 70 | 73 | 74 |
| Gradall | No | 40 | 85 | 83 | 70 |
| Grader | No | 40 | 85 | -- N/A -- | 0 |
| Grapple (on backhoe) | No | 40 | 85 | 87 | 1 |
| Horizontal Boring Hydr. Jack | No | 25 | 80 | 82 | 6 |
| Hydra Break Ram | Yes | 10 | 90 | -- N/A -- | 0 |
| Impact Pile Driver | Yes | 20 | 95 | 101 | 11 |
| Jackhammer | Yes | 20 | 85 | 89 | 133 |
| Man Lift | No | 20 | 85 | 75 | 23 |
| Mounted Impact Hammer (hoe ram) | Yes | 20 | 90 | 90 | 212 |
| Pavement Scarafier | No | 20 | 85 | 90 | 2 |
| Paver | No | 50 | 85 | 77 | 9 |
| Pickup Truck | No | 40 | 55 | 75 | 1 |
| Pneumatic Tools | No | 50 | 85 | 85 | 90 |
| Pumps | No | 50 | 77 | 81 | 17 |
| Refrigerator Unit | No | 100 | 82 | 73 | 3 |
| Rivit Buster/chipping gun | Yes | 20 | 85 | 79 | 19 |
| Rock Drill | No | 20 | 85 | 81 | 3 |
| Roller | No | 20 | 85 | 80 | 16 |
| Sand Blasting (Single Nozzle) | No | 20 | 85 | 96 | 9 |
| Scraper | No | 40 | 85 | 84 | 12 |
| Shears (on backhoe) | No | 40 | 85 | 96 | 5 |
| Slurry Plant | No | 100 | 78 | 78 | 1 |
| Slurry Trenching Machine | No | 50 | 82 | 80 | 75 |
| Soil Mix Drill Rig | No | 50 | 80 | -- N/A -- | 0 |
| Tractor | No | 40 | 84 | -- N/A -- | 0 |
| Vacuum Excavator (Vac-truck) | No | 40 | 85 | 85 | 149 |
| Vacuum Street Sweeper | No | 10 | 80 | 82 | 19 |
| Ventilation Fan | No | 100 | 85 | 79 | 13 |
| Vibrating Hopper | No | 50 | 85 | 87 | 1 |
| Vibratory Concrete Mixer | No | 20 | 80 | 80 | 1 |
| Vibratory Pile Driver | No | 20 | 95 | 101 | 44 |
| Warning Horn | No | 5 | 85 | 83 | 12 |
| Welder / Torch | No | 40 | 73 | 74 | 5 |

Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual

Construction Equipment Reference Vibration Levels
From: Transit Noise and Vibration Impact Assessment
Manual (2018), Table 7-4.

Table 7-4 Vibration Source Levels for Construction Equipment

| Equipment | | PPV at 25 ft, in/sec | Approximate Lv* at 25 ft |
|--------------------------------|-------------|----------------------|--------------------------|
| Pile Driver (impact) | upper range | 1.518 | 112 |
| | typical | 0.644 | 104 |
| Pile Driver (sonic) | upper range | 0.734 | 105 |
| | typical | 0.17 | 93 |
| Clam shovel drop (slurry wall) | | 0.202 | 94 |
| Hydromill (slurry wall) | in soil | 0.008 | 66 |
| | in rock | 0.017 | 75 |
| Vibratory Roller | | 0.21 | 94 |
| Hoe Ram | | 0.089 | 87 |
| Large bulldozer | | 0.089 | 87 |
| Caisson drilling | | 0.089 | 87 |
| Loaded trucks | | 0.076 | 86 |
| Jackhammer | | 0.035 | 79 |
| Small bulldozer | | 0.003 | 58 |

* RMS velocity in decibels, VdB re 1 micro-in/sec

Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual

Construction Equipment Reference Vibration Levels
From: Transit Noise and Vibration Impact Assessment
Manual (2018), Table 7-4.

Table 7-4 Vibration Source Levels for Construction Equipment

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|--------------------------------|-------------|-------------------------|-----------------------------|
| Pile Driver (impact) | upper range | 1.518 | 112 |
| | typical | 0.644 | 104 |
| Pile Driver (sonic) | upper range | 0.734 | 105 |
| | typical | 0.17 | 93 |
| Clam shovel drop (slurry wall) | | 0.202 | 94 |
| Hydromill (slurry wall) | in soil | 0.008 | 66 |
| | in rock | 0.017 | 75 |
| Vibratory Roller | | 0.21 | 94 |
| Hoe Ram | | 0.089 | 87 |
| Large bulldozer | | 0.089 | 87 |
| Caisson drilling | | 0.089 | 87 |
| Loaded trucks | | 0.076 | 86 |
| Jackhammer | | 0.035 | 79 |
| Small bulldozer | | 0.003 | 58 |

* RMS velocity in decibels, VdB re 1 micro-in/sec

Appendix F

Transportation



Memorandum

Date: February 22, 2023

To: Brian Schuster, Breanna Sewell, Renee Longman, and Jeff Caton, ESA

From: Ali Kothawala, Miguel Nunez, and Sarah Brandenburg, Fehr & Peers

Subject: LA County 2045 Climate Action Plan Update - VMT Technical Memorandum

LA21-3290

Introduction

Purpose of transportation analysis in Climate Action Plan Quantification

The Draft 2045 LA County Climate Action Plan (CAP) actions and targets are informed by a robust data and analysis process. Data was collected for each of the topic areas and analyzed to help inform and develop actions and targets, and create meaningful, measurable, and trackable indicators. Land use and transportation actions that help reduce VMT include bike, ped, and transit improvements, transportation demand management programs, and land use design and density.

This current effort is applying and quantifying estimated benefits of CAP strategies for VMT reductions using a state-of-the-practice approach from the California Air Pollution Control Officers Association (CAPCOA) GHG Handbook

The purpose of this technical memorandum is to present the methodology and assumptions applied for quantifying estimated VMT reductions of selected transportation demand management (TDM) strategies contained in the CAP. The project team developed a list of various TDM strategies as part of the CAP, the strategies were narrowed based on applicability and available data, and the corresponding VMT reductions were estimated using the CAPCOA GHG Reductions Handbook¹ (December 2021).

¹ Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, California Air Pollution Control Officers Association, December 2021. Last accessed January 3, 2022, at <http://www.airquality.org/air-quality-health/climate-change/ghg-handbook-caleemod>



VMT from Prior CAP Effort

F&P developed an inventory of the VMT and GHG emitted in Los Angeles County in support of the previous Los Angeles County Sustainability Plan (OurCounty). The VMT and emissions analysis for the OurCounty utilized data inputs and outputs from the SCAG regional travel demand model. Emissions were calculated through use of the EMFAC model. The current update to the CAP builds off prior efforts and Buro Happold used the OurCounty VMT projections as the basis for providing forecasts for the year 2045.

VMT Reductions Approach

CAPCOA Overview

TDM strategies have been determined to be among the most effective for reducing VMT. TDM strategies are reductions available from certain types of project site modifications, programming, and operational changes. The effectiveness of identified TDM strategies builds on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). The 2010 CAPCOA GHG Handbook was recently updated and the final version was published in December 2021. The CAPCOA Handbook contains detailed equations to apply these TDM reductions given the land use type and built environment context. The Handbook provides a percentage range (minimum-maximum) on the expected VMT reduction for each individual TDM strategy. In addition, some TDM strategies have complementary benefits reducing VMT, and need to be considered in combination, and not individually.

Data Sources (land use, transit, and bike facilities)

In order to apply the appropriate VMT percent reduction for each TDM strategy listed below, certain inputs are required that describe the land use type, built environment context, and characteristics of the TDM strategy. The inputs were provided to Fehr &Peers by LA County staff, and where information was not available, assumptions were made based on the default values provided in the CAPCOA Handbook.

- **Land Use:**
 - Increase residential/job density
 - Provide transit-oriented development (TOD) near high-quality transit areas (HQTA)



- *Data sources:* LA County provided F&P a GIS shapefile layer showing the 2029 Housing Element Rezone Areas. F&P used a major transit stop² GIS layer that was developed as part of the LA County SB 743 VMT Tool released in late 2020.
- **Transit service:**
 - Increase transit service hours
 - Provide treatments to enhance existing transit routes
 - Improve county shuttle system
 - *Data sources :* LA Metro NextGen Plan³ and LA Metro LRTP⁴
- **Bike Facilities:**
 - Increase the number of bikeway miles
 - *Data sources:* Los Angeles County Bike Master Plan 2012.⁵

² "Major transit stop" is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (CA Public Resource Code, § 21064.3).

³ LA Metro NextGen Bus Plan, Los Angeles Metropolitan Transportation Authority, October 2020. Last accessed on January 03, 2022, at <https://www.metro.net/about/plans/nextgen-bus-plan/>

⁴ 2020 Long Range Transportation Plan, Los Angeles Metropolitan Transportation Authority, Mar 2020. Last accessed on January 03, 2022, at <https://www.metro.net/about/plans/long-range-transportation-plan/>

⁵ Bicycle Master Plan, County of Los Angeles Public Works, March 2012. Last accessed January 3, 2022, at <https://pw.lacounty.gov/tpp/bike/docs/bmp/FINAL%20Bicycle%20Master%20Plan.pdf>



Applying VMT reductions

Data Sources and Quantifying VMT Reductions with CAPCOA

To quantify VMT reductions, appropriate equations were used based on factsheets in the CAPCOA handbook. Using the data obtained from sources identified in the previous section as inputs, percent reductions in VMT were estimated. However, not all reductions can be applied to all or total VMT. VMT resulting from light-duty vehicles is often categorized by trip purpose. Different VMT measures based on their nature and scope of application may apply either to one or more categories of the total combined light-duty vehicle VMT. For example, commuter subsidies are most likely to reduce home-based work VMT for employees and less likely to reduce VMT for retail patrons. In a similar vein, VMT reduction benefits accrue based on the geographic extent and context in which the strategy is applied. For instance, providing bicycle, pedestrian, and transit infrastructure will likely have more benefit in an urban than rural area. Not all measures will have a countywide effect. After identifying data sources, VMT reduction strategies, and the scope of each reduction, the VMT reduction estimates were finalized.

To estimate VMT reductions, implementing actions in the Draft GHG Reduction Measures Recommendations Memo (June 16, 2021) were first screened to identify actions whose reduction can be quantified. While most actions can be quantified, the level of detail needed to provide a detailed VMT estimate was not available; therefore, five quantifiable actions across the three categories were used for the CAP's VMT reduction estimate. This is not to say that the screened-out actions hold little or no GHG reduction potential. Like Supporting or Non-Quantified Reduction Measures enlisted in the Handbook, non-quantified VMT reduction actions although not quantitatively evaluated "may achieve emissions reductions and co-benefits on their own or may enhance the ability of quantified measures to attain expanded reduction and co-benefits." Table 1 summarizes the final list of quantifiable measures and implementing actions under each strategy and corresponding information such as the applicable CAPCOA strategy maximum VMT reduction that can be claimed under the strategy, data inputs required to quantify the benefit, assumptions made where needed, the equation used to estimate VMT reduction, and scope of application for geography and trip purpose.

Table 1. Quantifiable GHG Reduction Measures and corresponding VMT Reduction Category and Scope

| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|---|--|--|--|--|--|
| Strategy 2: Increase densities and diversity of destinations with an emphasis near transit | | | | | | |
| Measure T1: Increase Density Near High-Quality Transit Areas | | | | | | |
| Increasing residential density, particularly near transit and affordable housing, is shown to reduce VMT. | Number and percent of increase in DUs in HQTAs, Specific Plans, or Area Plans | T-1 – Increase Residential Density. Up to 30% GHG emissions from VMT, depending on project DU per acre | Project DU per acre & typical DU per acre | Densities range from 20 DU per acre to 50 to 70 DU per acre. 9.1 DU/acre for typical density | 20 du/acre : (20-9.1) /9.1 x -0.22 = <u>-26.4% reduction</u> | Home-Based VMT in TOD Areas |
| Implementing Actions | | | | | | |
| T1.2 – Incentivize and prioritize development within | <ul style="list-style-type: none"> • Increase in DUs within HQTA • DU per acre Change in number of jobs and housing in non- HQTAs | T-3 – Provide Transit-Oriented Development | (B) Transit & (D) auto mode share in surrounding City, and (C) Ratio of transit mode share for TOD | 27% measure maximum (B x C) & 85% auto mode share based on 2012 CHTS (D) | 27% / -85% = <u>-31.8% reduction (use maximum 31%)</u> | Total VMT in TOD Areas |



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|--|---|--|--|---|--|--|
| (HQTA) ⁶ , while ensuring inclusion of vital public amenities such as parks and active transportation infrastructure. | | (TOD) ⁷ . Up to 31% of GHG emissions from project VMT. | area with measure compared to existing transit mode share in surrounding city | | | |
| Measure T2: Develop Land Use Plans Addressing Jobs/Housing Balance & Increase Mixed Use | | | | | | |
| Increasing density and diversity of destinations can help reduce single occupancy | Change in number of jobs and housing in non-HQTAs | T-2 – Increase Job Density. Up to 30% GHG emissions from VMT, depending on project jobs per acre | Job density of typical development = 145 jobs per acre, & Elasticity of VMT with respect | Project job density = 300 jobs per acre | $(300-145)/145 \times -0.07 =$ <u>-7.5% reduction</u> | This strategy overlaps with the TOD strategy above where we assume 31% Total VMT |

⁶ High Quality Transit Areas: Areas within one half mile of a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

⁷ To be considered TOD, a development must be within a 10-minute walk (0.5 mile) of a high frequency transit station (rail, or bus with headways less than 15 minutes)



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|---|--|--------------------------------------|--|--------------------------------|--|
| trips, the number of trips, and trip lengths | | | to job density = -0.07 | | | Reduction at TOD sites. No reduction here. |
| <i>Strategy 3: Reduce single-occupancy vehicle trips</i> | | | | | | |
| Measure T3: Expand Bicycle & Pedestrian Network to Serve Residential, Employment, & Recreational Trips | | | | | | |
| Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles. | T-17 – Provide Pedestrian Network Improvement. Up to 6.4% GHG emissions from vehicle travel, depending on length of existing and planned facilities T-19 – Expand Bikeway Network. | <ul style="list-style-type: none"> • Miles of bikeway type • Miles of transit routes • Headways | | | | |
| Implementing Actions | | | | | | |
| T3.2 – Create a more connected and | • Miles of bikeway type | T-19 – Expand Bikeway Network. Up to 0.5% GHG emissions from | Miles of existing & planned bikeways | LA County Bike Plan proposes significant | -0.5% Maximum Reduction | Total VMT Countywide |



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|--|--|--|-----------------------------|--|--|--|
| safer bikeway network by expanding bikeway facilities and deploying protected and separated lanes. | <ul style="list-style-type: none"> Additional employees or residents served Number of cities collaborated with to inform key areas for bicycle infrastructure expansion Number of funding sources identified or % of funding secured | vehicle travel, depending on length of existing and planned facilities | | increases in bikeway miles. This analysis applies a 300% increase in bikeway miles by 2035. The maximum possible reduction of 0.5% is estimated based on the extent of network improvements outlined in the 2012 Bike Plan | | (unincorporated areas) |
| Measure T4: Encourage Transit, Active Transportation, & Alternative Modes of Transportation | | | | | | |
| Implementing Actions | | | | | | |
| T4.1 – Expand and improve frequency of | <ul style="list-style-type: none"> Size of area served | T-24 – Extend Transit Network Coverage or Hours. Up to 4.6% of | Total transit service hours | Assume transit mode share of 4.6% per 2012 | $-1 \times (1.12M-560K)/560K \times 4.6\% \times 0.7 \times 57.8\% \times 1 =$ <u>-1.9% Reduction</u> | Total VMT Countywide |



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|--|---|---|--|--|--|
| existing network of County shuttles and explore new mobility services, such as micro transit ⁸ , in unincorporated County areas. | <ul style="list-style-type: none"> • Number of employees and residents served • Service frequency and headways | GHG emissions from vehicle travel, depending on increase in transit service hours or miles and the transit mode share in the community. | before & after expansion | CHTS; Assume 560,000 existing transit service hours in unincorporated county & 1.12 million after expansion based on Metro NextGen | | (unincorporated areas) |
| T4.2 – Collaborate with Metro and other transit providers to install bus-only lanes and | <ul style="list-style-type: none"> • Increase in headways or frequencies • Increase in headways | T-26 – Implement Transit-Supportive Roadway Improvements. Up to 0.6% GHG emissions from vehicle travel, depending on the | Percent of transit routes that receive treatments | Assume transit mode share of 4.6% per 2012 CHTS, 85% for auto; Assume major transit | $-1 \times (100\% \times -10 \times -0.4 \times 4.6\% \times 57.8\%) / 85\% =$ <p><u>-12.5% Reduction</u> (use maximum <u>-0.6%</u>)</p> | Total VMT in TOD Areas/HQTA Stops |

⁸ Micro transit is public or private multi-passenger transportation services that serve passengers using dynamically generated routes; they provide transit-like service on a smaller, more flexible scale.



| Description | Tracking Metrics | Applicable 2021 CAPCOA Strategy & VMT Reduction Range | CAPCOA User Inputs | F&P Input Assumptions | % GHG Reduction Quantification | VMT Category & Geographic Scope to which Reduction is Applied to |
|---|--|---|--------------------|--|--------------------------------|--|
| signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate. | <ul style="list-style-type: none"> • Increase in residents/employees served • Travel time reliability • Creation of new HQTAs | percent of transit routes that receive improvements. | | thoroughfares in unincorporated county will receive treatments such as bus only lanes and/or signal prioritization | | |

CAPCOA Analysis and Findings

VMT is calculated at the transportation analysis zone (TAZ) level. TAZs are comparable in size and shape to census tracts or block groups depending on the travel demand model used and level of modeling detail. Once the percent VMT reductions were determined, based on the geographic scope and VMT category of each implementation action, the appropriate VMT was aggregated across the county or specific geographic sub areas, such as the TAZs within which transit enhancements would take place. Actions T3.2 and T4.1 were applied countywide. For the remaining actions, only the VMT generated in TAZs whose geographic area overlapped with the location of the infrastructure or land use strategy were included. Percent reductions were then applied to appropriate VMT sub-totals to obtain the VMT reduction estimates. The sum of these reductions was then subtracted from total light-duty vehicle VMT to estimate adjusted daily VMT. This adjusted daily VMT was then projected to obtain VMT reductions and adjusted totals in each analysis year (2030, 2035, and 2045). Table 2 shows reductions for each quantifiable implementation action for the analysis years.

Based on the methodology outlined in the CAPCOA Handbook, when determining the overall VMT reduction, the VMT reduction is separately calculated for each of the individual strategies should be dampened, or diminished, according to a multiplicative formula to account for the fact that some of the strategies may be redundant or applicable to the same populations. The multiplicative equation to accomplish this adjustment is as follows:

$$\text{Overall \% VMT Reduction} = 1 - (1 - A) * (1 - B) * (1 - C) * (1 - D) \dots$$

where A, B, C, D ... = individual mitigation strategy reduction percentages

For example, if two strategies were proposed with corresponding VMT reductions of 20% and 10%, the equation would be $[1 - (1 - 20\%) * (1 - 10\%)]$ or $[1 - (80\% * 90\%)]$, which equates to a 28% reduction rather than the 30% reduction that would otherwise be seen with a direct sum. Therefore, the overall VMT reduction was calculated as a dampened, or diminished, total according to the equation above, which produces a conservative overall estimate.

$$A = 1.38\%; \quad B = 1.97\%; \quad C = 0.15\%; \quad D = 0.57\%; \quad E = 0.01\%$$

$$\text{Overall \% VMT Reduction} = 1 - (1 - 0.0138) * (1 - 0.0197) * (1 - 0.0015) * (1 - 0.0057) * (1 - 0.0001) = 4.03\%$$

Based on the application of VMT reductions and dampening factor, the reduction of 4.03% would result in a total adjusted total daily VMT of 18,798,031 VMT in 2035, for example.

Table 2. VMT Reductions per Quantifiable Implementation Action for Analysis Years 2030, 2035, and 2045

| Reduction Category | Reduction Percent | VMT Applied to | Geography Applied to | Daily VMT Reduction | | | Reduction as a share of Total County VMT |
|--|-------------------|----------------|------------------------|---------------------|-------------------|-------------------|--|
| | | | | 2030 | 2035 | 2045 | |
| M1T1 Increase Residential Density in HQTAs | 26.4 | Home-based VMT | TAZs intersecting TODs | 267,982 | 269,689 | 273,103 | 1.38% |
| T1.2 Incentivizing and Promoting HQTAs | 31 | Total VMT | TAZs intersecting TODs | 383,838 | 386,283 | 391,172 | 1.97% |
| T3.2 Pedestrian and Bikeway Network Improvements | 0.5 | Total VMT | Unincorporated County | 0 | 29,133 | 29,502 | 0.15% |
| T4.1 County Shuttles | 1.9 | Total VMT | Unincorporated County | 110,005 | 110,706 | 112,107 | 0.57% |
| T4.2 Bus-only and signal prioritization | 0.6 | Total VMT | TAZs intersecting TODs | 2,303 | 2,318 | 2,347 | 0.01% |
| Subtotal for VMT Reductions | | | | 764,128 | 798,128 | 808,231 | |
| Total Daily VMT (Pre-VMT reductions) | | | | 19,442,787 | 19,596,159 | 19,902,905 | 4% |
| Total Daily VMT (Post-VMT reductions) | | | | 18,678,659 | 18,798,031 | 19,094,674 | |

5. Conclusion

The estimated benefits of CAP strategies for VMT reductions were quantified using a state-of-the-practice approach from the California Air Pollution Control Officers Association (CAPCOA) GHG Handbook. GHG reduction measures and Implementing actions were first screened to identify those that can be quantified. Using travel demand forecasting results from the SCAG regional travel demand model, County VMT data were used, based on trip purpose and geography, to estimate benefits from CAP actions.

While several strategies have significant reduction potential of up to 30%, like those that involve increasing residential density, the measures are applied to a portion of the unincorporated county and therefore accrue a net reduction of less than 2% countywide. When accounting for a combined effect, the effectiveness of each measure could be dampened by the existence of a similar overlapping measure. By estimating VMT that more closely reflects the travel to be likely affected by a certain measure, possibilities of overlaps have been minimized. Even then, a dampening factor was applied above to show the total reduction estimate that accounts for dampening arrives at a similar VMT reduction estimate. This analysis will support the analysis and quantification of benefits from the CAP for Los Angeles County and its residents.

Appendix G

Tribal Cultural Resources





Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Andrew Salas, Chairperson
Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

**RE: SENATE BILL (SB) 18 CONSULTATION (GOVERNMENT CODE §65352.3)
OURCOUNTY CLIMATE ACTION PLAN
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

The Native American Heritage Commission (NAHC) has identified your tribe as one with traditional lands or cultural places located within the proposed boundary of the above-referenced project. Because this project requires an amendment to the General Plan, it is subject to the SB 18 Tribal Consultation requirements (Government Code Section 65352.3). This letter serves as a formal notification and invitation to consult with the County of Los Angeles (County) on the proposed project identified above.

The project site is all unincorporated areas of the County of Los Angeles (County). Two maps depicting the unincorporated County areas are enclosed for your reference.

The proposed Project, the OurCounty Climate Action Plan (OurCounty CAP), is a comprehensive update to the Los Angeles County Community Climate Action Plan (CCAP) adopted in 2015. The Project entails a General Plan amendment to update the existing CCAP, which is a component of the Air Quality Element of the General Plan. The 2015 CCAP is an action plan that was created to reduce greenhouse gas (GHG) emissions from community activities in the unincorporated Los Angeles County by at least 11% below 2010 levels by 2020. For the update, OurCounty CAP utilizes 2015 data as the baseline year and 2025, 2035, and 2045 as the years for achieving GHG reduction targets. The OurCounty CAP GHG emissions from community activities and the reduction strategies and actions are organized into the following sectors: Stationary Energy; Transportation; Waste; Industrial Processes and Product Use; and Agriculture, Forestry and Other Land Use.

In developing the OurCounty CAP, an updated GHG emissions inventory and forecast was prepared. The GHG inventory provides the baseline from which the County will track GHG emissions reductions within the unincorporated areas of the County. The OurCounty CAP provides GHG reduction targets and includes actions that will help achieve those targets.

Specifically, the OurCounty CAP is designed to do the following:

- Provide an updated greenhouse gas (GHG) emission inventory by sectors using 2015 data as the baseline and forecast emissions for 2025, 2035, and 2045;
- Establish GHG emissions reduction targets as follows:
 - o by 2025, reduce GHG emissions by 25% below 2015 levels (aligned with 40% reduction below 1990 levels by 2030, consistent with SB 32);
 - o by 2035, reduce GHG emissions by 50% below 2015 levels (exceeding 19% reduction in per capita emissions from 2005 by 2035 and 21% reduction from 2005 by 2040, consistent with SB 375); and
 - o by 2045, achieve carbon neutrality in unincorporated LA County (consistent with Executive Order B-55-18).
- Incorporate certain actions from the 2015 CCAP that are necessary to achieve GHG emissions reduction targets;
- Establish new GHG emissions reduction actions;
- Outline the potential GHG emissions reduction through OurCounty CAP actions; and
- Establish procedures/protocols to monitor and verify the effectiveness of the actions to reduce GHG emissions.

The OurCounty CAP does not propose any change to the existing land use or zoning designations of the County General Plan or Zoning Ordinance, respectively. Furthermore, the OurCounty CAP does not directly involve any new construction/physical development nor does it grant any entitlements for development. Any future site-specific discretionary project would require a project-level environmental review under the California Environmental Quality Act.

The NAHC has provided the County Department of Regional Planning with a list of Native American Tribes with traditional lands or cultural places located within the unincorporated areas of the County. This letter was sent to each of the listed tribes.

Your participation in this local planning process is important. Pursuant to Government Code Section 65352.3(a)(2), you have 90 days from the receipt of this letter to request consultation with the County of Los Angeles. Please submit your request to the contact information listed below.

Lead Agency Contact Information: Christina Tran
Environmental Planning and Sustainability Section
Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Christina Tran, Senior Regional Planner

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Anthony Morales, Chairperson
Gabrieleno/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

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Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Christina Tran, Senior Regional Planner

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Charles Alvarez
Gabrielino – Tongva Tribe
23454 Vanowen Street
West Hills, CA 91307

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Email: ctran@planning.lacounty.gov

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Christina Tran, Senior Regional Planner

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Donna Yocum, Chairperson
San Fernando Band of Mission Indians
P.O. Box 221838
Newhall, CA 91322

**RE: SENATE BILL (SB) 18 CONSULTATION (GOVERNMENT CODE §65352.3)
OURCOUNTY CLIMATE ACTION PLAN
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

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Planning for the Challenges Ahead



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Director of Regional Planning

Dennis Slavin
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November 13, 2019

Fred Collins, Spokesperson
Northern Chumash Tribal Council
P.O. Box 6533
Los Osos, CA 93412

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Gino Altamirano, Chairperson
Coastal Band of the Chumash Nation
P.O. Box 4464
Santa Barbara, CA 93140

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Jairo Avila, Tribal Historic and Cultural Preservation Officer
Fernandeno Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, CA 91340

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Julie Tumamait-Stenslie, Chairperson
Barbareno/Ventureno Band of Mission Indians
365 North Poli Avenue
Ojai, CA 93023

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November 13, 2019

Julio Quair, Chairperson
Chumash Council of Bakersfield
729 Texas Street
Bakersfield, CA 93307

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Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
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Kenneth Kahn, Chairperson
Santa Ynez Band of Chumash Indians
P.O. Box 517
Santa Ynez, CA 93460

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320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Christina Tran, Senior Regional Planner

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Lee Clauss, Director of Cultural Resources
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

**RE: SENATE BILL (SB) 18 CONSULTATION (GOVERNMENT CODE §65352.3)
OURCOUNTY CLIMATE ACTION PLAN
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

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Amy J. Bodek, AICP

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Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

Via U.S. Mail and Email

March 11, 2020

Gino Altamirano, Chairperson
Coastal Band of the Chumash Nation
P.O. Box 4464
Santa Barbara, CA 93140

**RE: SENATE BILL (SB) 18 CONSULTATION (GOVERNMENT CODE §65352.3)
LOS ANGELES COUNTY CLIMATE ACTION PLAN
(PREVIOUSLY “OURCOUNTY CLIMATE ACTION PLAN”)
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

Dear Gino Altamirano,

Thank you for your email of November 19, 2019, wherein you expressed an interest in a consultation between the Coastal Band of the Chumash Nation (Chumash Nation) and the County of Los Angeles (County) pursuant to SB 18 for the above-referenced project. The County emailed you on November 21, 2019 and on January 8, 2020 to inquire about your availability for a consultation. To date, the County has not heard back from you on this matter. The County had also tried to find the phone number for the Chumash Nation by contacting the Native American Heritage Commission (NAHC) and conducting an internet search. Unfortunately, our due diligence efforts did not produce a contact number, and thus the County was not able to contact the Chumash Nation by phone.

Please be advised that this letter serves as the County’s final attempt to contact the Chumash Nation in order to schedule and proceed with the consultation process. We kindly ask that the Chumash Nation respond to this letter by April 13, 2020. Our contact information is provided below for your convenience. If a response is not provided by the deadline date, the County will conclude the SB 18 process.

320 West Temple Street • Los Angeles, CA 90012 • 213-974-6411 • TDD: 213-617-2292

   @LACDRP | planning.lacounty.gov

SB 18 Consultation
March 11, 2020
Page 2

Thank you in advance for your attention to this matter and we look forward to hearing from you.

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Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Mark Cochrane, Co-Chairperson
Serrano Nation of Mission Indians
P.O. Box 343
Patton, CA 92369

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Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Mark Vigil, Chief
San Luis Obispo County Chumash Council
1030 Ritchie Road
Grover Beach, CA 93433

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Planning for the Challenges Ahead



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Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Matias Belardes, Chairperson
Juaneno Band of Mission Indians Acjachemen Nation
32161 Avenida Los Amigos
San Juan Capistrano, CA 92675

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Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Mona Tucker, Chairperson
yak tityu tityu yak tithini-Northern Chumas Tribe
660 Camino Del Rey
Arroyo Grande, CA 93420

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Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
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November 13, 2019

Robert Dorame, Chairperson
Gabrielino Tongva Indians of California Tribal Council
P.O. Box 490
Bellflower, CA 90707

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Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Christina Tran, Senior Regional Planner

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Robert L. Gomez, Chairperson
Tubatulabals of Kern Valley
P.O. Box 226
Lake Isabella, CA 93240

**RE: SENATE BILL (SB) 18 CONSULTATION (GOVERNMENT CODE §65352.3)
OURCOUNTY CLIMATE ACTION PLAN
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

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Planning for the Challenges Ahead



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Director of Regional Planning

Dennis Slavin
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November 13, 2019

Robert Martin, Chairperson
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

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Robert Robinson, Chairperson
Kern Valley Indian Community
P.O. Box 1010
Lake Isabella, CA 93283

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Rudy Ortega, Tribal President
Fernandeno Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, CA 91340

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Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
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November 13, 2019

Sandonne Goad, Chairperson
Gabrielino/Tongva Nation
106 1/2 Judge John Aiso Street, #231
Los Angeles, CA 90012

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Sonia Johnston, Chairperson
Juaneno Band of Mission Indians
P.O. Box 25628
Santa Ana, CA 92799

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Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
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November 13, 2019

Teresa Romero, Chairperson
Juaneno Band of Mission Indians Acjachemen Nation – Romero
31411 La Matanza Street, Suite A
San Juan Capistrano, CA 92675

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Your participation in this local planning process is important. Pursuant to Government Code Section 65352.3(a)(2), you have 90 days from the receipt of this letter to request consultation with the County of Los Angeles. Please submit your request to the contact information listed below.

Lead Agency Contact Information: Christina Tran
Environmental Planning and Sustainability Section
Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Christina Tran, Senior Regional Planner

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Wayne Walker, Co-Chairperson
Serrano Nation of Mission Indians
P.O. Box 343
Patton, CA 92369

**RE: SENATE BILL (SB) 18 CONSULTATION (GOVERNMENT CODE §65352.3)
OURCOUNTY CLIMATE ACTION PLAN
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

The Native American Heritage Commission (NAHC) has identified your tribe as one with traditional lands or cultural places located within the proposed boundary of the above-referenced project. Because this project requires an amendment to the General Plan, it is subject to the SB 18 Tribal Consultation requirements (Government Code Section 65352.3). This letter serves as a formal notification and invitation to consult with the County of Los Angeles (County) on the proposed project identified above.

The project site is all unincorporated areas of the County of Los Angeles (County). Two maps depicting the unincorporated County areas are enclosed for your reference.

The proposed Project, the OurCounty Climate Action Plan (OurCounty CAP), is a comprehensive update to the Los Angeles County Community Climate Action Plan (CCAP) adopted in 2015. The Project entails a General Plan amendment to update the existing CCAP, which is a component of the Air Quality Element of the General Plan. The 2015 CCAP is an action plan that was created to reduce greenhouse gas (GHG) emissions from community activities in the unincorporated Los Angeles County by at least 11% below 2010 levels by 2020. For the update, OurCounty CAP utilizes 2015 data as the baseline year and 2025, 2035, and 2045 as the years for achieving GHG reduction targets. The OurCounty CAP GHG emissions from community activities and the reduction strategies and actions are organized into the following sectors: Stationary Energy; Transportation; Waste; Industrial Processes and Product Use; and Agriculture, Forestry and Other Land Use.

In developing the OurCounty CAP, an updated GHG emissions inventory and forecast was prepared. The GHG inventory provides the baseline from which the County will track GHG emissions reductions within the unincorporated areas of the County. The OurCounty CAP provides GHG reduction targets and includes actions that will help achieve those targets.

Specifically, the OurCounty CAP is designed to do the following:

- Provide an updated greenhouse gas (GHG) emission inventory by sectors using 2015 data as the baseline and forecast emissions for 2025, 2035, and 2045;
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Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Christina Tran, Senior Regional Planner

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT

Fatima Clark

From: Coastal Band of the Chumash Nation <cbcn.consultation@gmail.com>
Sent: Tuesday, November 19, 2019 10:45 PM
To: Christina Tran
Subject: Re: SB 18 Consultation (OurCounty Climate Action Plan project)

CAUTION: External Email. Proceed Responsibly.

Miss Tran. We are interested in consultation. Can we set a time to discuss?

Thank you,
Gino Altamirano

On Thu, Nov 14, 2019 at 3:35 PM Christina Tran <ctran@planning.lacounty.gov> wrote:

Good afternoon,

The signed notification for the above-referenced project was sent to you via U.S. mail on 11/13/19 in conformance with the requirements of SB 18. Attached is an unsigned copy of that notification, which is provided for your information and reference. You should be receiving the signed copy in the mail within the next few days. Please contact me if you have any questions.

Sincerely,

Christina Tran

Senior Planner

Environmental Planning and Sustainability Section
Los Angeles County Department of Regional Planning

[320 W. Temple Street, Room 1362](#)

[Los Angeles, CA 90012](#)
(213) 974-6461

ctran@planning.lacounty.gov

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reproduction of this message or its contents is strictly prohibited. Please notify us immediately by reply email that you have received this message in error, and destroy this message, including any attachments.

Fatima Clark

From: Joyce Perry <kaamalam@gmail.com>
Sent: Thursday, December 12, 2019 10:13 AM
To: Christina Tran
Subject: Re: SB 18 Consultation (OurCounty Climate Action Plan project)

CAUTION: External Email. Proceed Responsibly.

Good Morning Christina,

On behalf of the Juaneno Band of Mission Indians, Acjachemen Nation-Belardes, I am responding to your above notification. After reviewing the contents we have no concerns, thank you.

Húu'uni 'óomaqati yáamaqati.

Teach peace

Joyce Stanfield Perry

Payomkawichum Kaamalam - President

Juaneño Band of Mission Indians, Acjachemen Nation

Tribal Manager, Cultural Resource Director

On Thu, Nov 14, 2019 at 3:33 PM Christina Tran <ctran@planning.lacounty.gov> wrote:

Good afternoon,

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Sincerely,

Christina Tran

Senior Planner

Environmental Planning and Sustainability Section
Los Angeles County Department of Regional Planning

320 W. Temple Street, Room 1362

Los Angeles, CA 90012
(213) 974-6461

ctran@planning.lacounty.gov

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Fatima Clark

From: Travis Armstrong <TArmstrong@morongo-nsn.gov>
Sent: Tuesday, December 10, 2019 4:17 PM
To: Christina Tran
Subject: SB 18 - Our County Climate Action Plan Project

CAUTION: External Email. Proceed Responsibly.

Hello,

Regarding the above referenced project, we have no additional comments to provide at this time.

Thank you for reaching out to our office.

Sincerely,

Travis Armstrong
Tribal Historic Preservation Officer
Morongo Band of Mission Indians
951-755-5259
Email: thpo@morongo-nsn.gov



The information contained in this communication is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, or distribution of this information is strictly prohibited and may be unlawful.

For your safety, the contents of this email have been scanned for viruses and malware.

Fatima Clark

From: Jessica Mauck <JMauck@sanmanuel-nsn.gov>
Sent: Thursday, December 12, 2019 3:33 PM
To: Christina Tran
Subject: OurCounty Climate Action Plan Project

Hi Christina,

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above referenced project. SMBMI appreciates the opportunity to review the project documentation, which was received by our Cultural Resources Management Department on 14 November 2019, pursuant to CEQA (as amended, 2015), CA PRC 21080.3.1, and Senate Bill 18. As SMBMI has no concerns with the proposed Project, the Tribe does not elect to consult on this project.

Regards,

Jessica Mauck

CULTURAL RESOURCES ANALYST

O: (909) 864-8933 x3249

M: (909) 725-9054

26569 Community Center Drive Highland California 92346



From: Lee Clauss
Sent: Thursday, November 14, 2019 5:00 PM
To: Jessica Mauck
Subject: FW: SB 18 Consultation (OurCounty Climate Action Plan project)

[FYI...](#)

Lee Clauss

DIRECTOR, CULTURAL RESOURCES MANAGEMENT

O: (909) 864-8933

Internal: 50-3248

M: (909) 633-5851

26569 Community Center Drive Highland California 92346



From: Christina Tran <ctran@planning.lacounty.gov>
Sent: Thursday, November 14, 2019 3:32 PM

To: Lee Clauss <LClauss@sanmanuel-nsn.gov>
Subject: SB 18 Consultation (OurCounty Climate Action Plan project)

Good afternoon,

The signed notification for the above-referenced project was sent to you via U.S. mail on 11/13/19 in conformance with the requirements of SB 18. Attached is an unsigned copy of that notification, which is provided for your information and reference. You should be receiving the signed copy in the mail within the next few days. Please contact me if you have any questions.

Sincerely,

Christina Tran
Senior Planner
Environmental Planning and Sustainability Section
Los Angeles County Department of Regional Planning
320 W. Temple Street, Room 1362
Los Angeles, CA 90012
(213) 974-6461
ctran@planning.lacounty.gov

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Fatima Clark

From: Susan Arakawa <sarakawa@santaynezchumash.org>
Sent: Friday, December 6, 2019 2:12 PM
To: Christina Tran
Subject: Senate Bill (SB) 18 Consultation Our Country Climate Action Plan
Attachments: Response to Community Climate Action Plan Update LA.docx

CAUTION: External Email. Proceed Responsibly.

Hello Ms. Tran,

Please find attached our response concerning Senate Bill (SB) 18 Consultation Our Country Climate Action Plan.

Thank you for contacting us regarding this matter.

Susan Arakawa
Administrative Assistant | Elders' Council and Culture Department
Santa Ynez Band of Chumash Indians | Tribal Hall
Office: (805) 688-7997 ext. 4119
sarakawa@santaynezchumash.org





Santa Ynez Band of Chumash Indians
Tribal Elders' Council

P.O. Box 517 ♦ Santa Ynez ♦ CA ♦ 93460

Phone: (805)688-7997 ♦ Fax: (805)688-9578 ♦ Email: elders@santaynezchuhmash.org

December 6, 2019

Environmental Planning and Sustainability Section
Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012

Att.: Christina Tran, Senior Regional Planner

Re: Senate Bill (SB) 18 Consultation Our Country Climate Action

Dear Ms. Tran:

Thank you for contacting the Tribal Elders' Council for the Santa Ynez Band of Chumash Indians in regards to the above mentioned project.

At this time, the Elders Council requests no further consultation on this project; however, if supplementary literature reveals additional information, or if the scope of the work changes, we kindly ask to be notified.

If you decide to have the presence of a Native American monitor in place during ground disturbance to assure that any cultural items unearthed be identified as quickly as possible, please contact our office or Chumash of the project area.

Thank you for remembering that at one time our ancestors walked this sacred land.

Sincerely Yours,

The Tribal Elders' Council Governing Board



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

Via U.S. Mail and Email

March 11, 2020

Gino Altamirano, Chairperson
Coastal Band of the Chumash Nation
P.O. Box 4464
Santa Barbara, CA 93140




**RE: SENATE BILL (SB) 18 CONSULTATION (GOVERNMENT CODE §65352.3)
LOS ANGELES COUNTY CLIMATE ACTION PLAN
(PREVIOUSLY “OURCOUNTY CLIMATE ACTION PLAN”)
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

Dear Gino Altamirano,

Thank you for your email of November 19, 2019, wherein you expressed an interest in a consultation between the Coastal Band of the Chumash Nation (Chumash Nation) and the County of Los Angeles (County) pursuant to SB 18 for the above-referenced project. The County emailed you on November 21, 2019 and on January 8, 2020 to inquire about your availability for a consultation. To date, the County has not heard back from you on this matter. The County had also tried to find the phone number for the Chumash Nation by contacting the Native American Heritage Commission (NAHC) and conducting an internet search. Unfortunately, our due diligence efforts did not produce a contact number, and thus the County was not able to contact the Chumash Nation by phone.

Please be advised that this letter serves as the County's final attempt to contact the Chumash Nation in order to schedule and proceed with the consultation process. We kindly ask that the Chumash Nation respond to this letter by April 13, 2020. Our contact information is provided below for your convenience. If a response is not provided by the deadline date, the County will conclude the SB 18 process.

320 West Temple Street • Los Angeles, CA 90012 • 213-974-6411 • TDD: 213-617-2292

   @LACDRP | planning.lacounty.gov

SB 18 Consultation
March 11, 2020
Page 2

Thank you in advance for your attention to this matter and we look forward to hearing from you.

Lead Agency Contact Information: Christina Tran
Environmental Planning and Sustainability Section
Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP

Alexandra Baldwin FOR
Christina Tran, Senior Regional Planner

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Andrew Salas, Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

RE: TRIBAL CULTURAL RESOURCES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AB 52 (GATTO, 2014). FORMAL NOTIFICATION OF THE PROPOSED PROJECT PURSUANT TO PUBLIC RESOURCES CODE (PRC) §21080.3.1

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, two maps showing the project location, and our contact information along with the name of our point of contact, pursuant to PRC §21080.3.1(d).

**Proposed Project: OurCounty Climate Action Plan
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

Project Description:

The proposed Project, the OurCounty Climate Action Plan (OurCounty CAP), is a comprehensive update to the Los Angeles County Community Climate Action Plan (CCAP) adopted in 2015. The Project entails a General Plan amendment to update the existing CCAP, which is a component of the Air Quality Element of the General Plan. The 2015 CCAP is an action plan that was created to reduce greenhouse gas (GHG) emissions from community activities in the unincorporated Los Angeles County by at least 11% below 2010 levels by 2020. For the update, OurCounty CAP utilizes 2015 data as the baseline year and 2025, 2035, and 2045 as the years for achieving GHG reduction targets. The OurCounty CAP GHG emissions from community activities and the reduction strategies and actions are organized into the following sectors: Stationary Energy; Transportation; Waste; Industrial Processes and Product Use; and Agriculture, Forestry and Other Land Use.

In developing the OurCounty CAP, an updated GHG emissions inventory and forecast was prepared. The GHG inventory provides the baseline from which the County will track GHG emissions reductions within the unincorporated areas of the County. The OurCounty CAP provides GHG reduction targets and includes actions that will help achieve those targets.

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The OurCounty CAP does not propose any change to the existing land use or zoning designations of the County General Plan or Zoning Ordinance, respectively. Furthermore, the OurCounty CAP does not directly involve any new construction/ physical development nor does it grant any entitlements for development. Any future site-specific discretionary project would require a project-level environmental review under the California Environmental Quality Act.

Project Location: Countywide (all unincorporated areas of Los Angeles County)

Lead Agency Contact Information: Christina Tran
Environmental Planning and Sustainability Section
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

AB 52 Formal Notification

November 13, 2019

Page 3

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,
DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director

Christina Tran, Senior Regional Planner
Environmental Planning and Sustainability Section

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Anthony Morales, Chief
Gabrieleno Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

RE: TRIBAL CULTURAL RESOURCES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AB 52 (GATTO, 2014). FORMAL NOTIFICATION OF THE PROPOSED PROJECT PURSUANT TO PUBLIC RESOURCES CODE (PRC) §21080.3.1

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320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

AB 52 Formal Notification

November 13, 2019

Page 3

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Amy J. Bodek, AICP
Director

Christina Tran, Senior Regional Planner
Environmental Planning and Sustainability Section

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Jairo Avila, Tribal Historic and Cultural Preservation Officer
Fernandeño Tataviam Band of Mission Indians
1019 Second Street
San Fernando, CA 91340

RE: TRIBAL CULTURAL RESOURCES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AB 52 (GATTO, 2014). FORMAL NOTIFICATION OF THE PROPOSED PROJECT PURSUANT TO PUBLIC RESOURCES CODE (PRC) §21080.3.1

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Project Location: Countywide (all unincorporated areas of Los Angeles County)

Lead Agency Contact Information: Christina Tran
Environmental Planning and Sustainability Section
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

AB 52 Formal Notification
November 13, 2019
Page 3

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Sincerely,
DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director

Christina Tran, Senior Regional Planner
Environmental Planning and Sustainability Section

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Lee Clauss
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

RE: TRIBAL CULTURAL RESOURCES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AB 52 (GATTO, 2014). FORMAL NOTIFICATION OF THE PROPOSED PROJECT PURSUANT TO PUBLIC RESOURCES CODE (PRC) §21080.3.1

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, two maps showing the project location, and our contact information along with the name of our point of contact, pursuant to PRC §21080.3.1(d).

**Proposed Project: OurCounty Climate Action Plan
Project No. 2019-002015
General Plan Amendment No. RPPL2019003630
Environmental Plan No. RPPL2019003635**

Project Description:

The proposed Project, the OurCounty Climate Action Plan (OurCounty CAP), is a comprehensive update to the Los Angeles County Community Climate Action Plan (CCAP) adopted in 2015. The Project entails a General Plan amendment to update the existing CCAP, which is a component of the Air Quality Element of the General Plan. The 2015 CCAP is an action plan that was created to reduce greenhouse gas (GHG) emissions from community activities in the unincorporated Los Angeles County by at least 11% below 2010 levels by 2020. For the update, OurCounty CAP utilizes 2015 data as the baseline year and 2025, 2035, and 2045 as the years for achieving GHG reduction targets. The OurCounty CAP GHG emissions from community activities and the reduction strategies and actions are organized into the following sectors: Stationary Energy; Transportation; Waste; Industrial Processes and Product Use; and Agriculture, Forestry and Other Land Use.

In developing the OurCounty CAP, an updated GHG emissions inventory and forecast was prepared. The GHG inventory provides the baseline from which the County will track GHG emissions reductions within the unincorporated areas of the County. The OurCounty CAP provides GHG reduction targets and includes actions that will help achieve those targets.

Specifically, the OurCounty CAP is designed to do the following:

- Provide an updated greenhouse gas (GHG) emission inventory by sectors using 2015 data as the baseline and forecast emissions for 2025, 2035, and 2045;
- Establish GHG emissions reduction targets as follows:
 - o by 2025, reduce GHG emissions by 25% below 2015 levels (aligned with 40% reduction below 1990 levels by 2030, consistent with SB 32);
 - o by 2035, reduce GHG emissions by 50% below 2015 levels (exceeding 19% reduction in per capita emissions from 2005 by 2035 and 21% reduction from 2005 by 2040, consistent with SB 375); and
 - o by 2045, achieve carbon neutrality in unincorporated LA County (consistent with Executive Order B-55-18).
- Incorporate certain actions from the 2015 CCAP that are necessary to achieve GHG emissions reduction targets;
- Establish new GHG emissions reduction actions;
- Outline the potential GHG emissions reduction through OurCounty CAP actions; and
- Establish procedures/protocols to monitor and verify the effectiveness of the actions to reduce GHG emissions.

The OurCounty CAP does not propose any change to the existing land use or zoning designations of the County General Plan or Zoning Ordinance, respectively. Furthermore, the OurCounty CAP does not directly involve any new construction/physical development nor does it grant any entitlements for development. Any future site-specific discretionary project would require a project-level environmental review under the California Environmental Quality Act.

Project Location: Countywide (all unincorporated areas of Los Angeles County)

Lead Agency Contact Information: Christina Tran
Environmental Planning and Sustainability Section
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
Telephone: (213) 974-6461
Email: ctran@planning.lacounty.gov

AB 52 Formal Notification

November 13, 2019

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Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,
DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director

Christina Tran, Senior Regional Planner
Environmental Planning and Sustainability Section

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

November 13, 2019

Mr. Octavio Escobedo, Tribal Chair
Tejon Indian Tribe
1761 Hasti Acres Drive, Suite 108
Bakersfield, CA 93309

RE: TRIBAL CULTURAL RESOURCES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AB 52 (GATTO, 2014). FORMAL NOTIFICATION OF THE PROPOSED PROJECT PURSUANT TO PUBLIC RESOURCES CODE (PRC) §21080.3.1

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Telephone: (213) 974-6461
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AB 52 Formal Notification

November 13, 2019

Page 3

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,
DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director

Christina Tran, Senior Regional Planner
Environmental Planning and Sustainability Section

Encl: Regional Location Map
Unincorporated Areas of Los Angeles County Map

ACB:CT

DRAFT CANDIDATE FINDINGS OF FACT
Public Resources Code Section 21081
For:
LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN
State Clearinghouse No. 2021120568

Lead Agency:
County of Los Angeles Department of Regional Planning

I. INTRODUCTION

This document presents the Findings of Fact (Findings) prepared by the County of Los Angeles Department of Regional Planning (County) for consideration of adoption by the Board of Supervisors of Los Angeles County (Board) regarding the Program Environmental Impact Report (PEIR) for the Los Angeles County 2045 Climate Action Plan (Project or 2045 CAP). The environmental effects of the Project are addressed in the Recirculated Draft PEIR dated March 2023 and a Final PEIR dated October 2023. The PEIR was prepared in compliance with the California Environmental Quality Act (CEQA, Pub. Resources Code, §§ 21000 *et seq.*) and its implementing regulations (CEQA Guidelines, Cal. Code Regs., tit. 14, §§ 15000 *et seq.*) and is incorporated by reference herein.

This document is organized as follows:

- Section I provides an introduction that describes the basis for these Findings and identifies the components of the record of proceedings as well as where to locate them.
- Section II describes the Project, including its location, objectives, and implementation timeline.
- Section III details the environmental review process and public participation.
- Section IV identifies the EIR certification process.
- Section V provides a summary of Project impacts, including which resource areas would have significant and unavoidable impacts, impacts that would be less than significant with mitigation incorporated, and less-than-significant impacts as a result of projects facilitated by the 2045 CAP.
- Section VI summarizes the Board's findings regarding significant and unavoidable impacts and impacts that would be less than significant with mitigation incorporated. Impact finding summaries are organized by environmental resource area with impacts, findings, and mitigation measures outlined.
- Section VII describes Findings relating to Project alternatives analyzed in the EIR, including the No Project Alternative, Alternative 1, Alternative 2, and Alternative 3.
- Section VIII summarizes additional CEQA Findings regarding the EIR.
- Section IX provides details about the Mitigation Monitoring and Reporting Plan.

Public Resources Code section 21081(a) and CEQA Guidelines section 15091(a) state that no public agency shall approve or carry out a project for which an environmental impact report has been completed that identifies one or more significant effects thereof, unless such public agency makes one or more of the following findings:

1. Finding 1: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects on the environment;
2. Finding 2: Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been or can or should be adopted by that other agency¹; or
3. Finding 3: Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

CEQA requires that the Findings be supported by substantial evidence in the record. (CEQA Guidelines, § 15091(b).) Under CEQA, “substantial evidence” means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. (CEQA Guidelines, § 15384.) Substantial evidence must include facts, reasonable assumptions predicted upon facts, and expert opinion supported by facts. (CEQA Guidelines, § 15384(b).) Additional substantial evidence supporting all Findings made herein is contained in the EIR and/or the record of proceedings.

The Findings have been submitted by the County of Los Angeles Department of Regional Planning as Findings to be made by the decision-making body, the County of Los Angeles Board of Supervisors. The issuance of these Findings allows readers an opportunity to review them prior to a decision by the Board on the Project. It is the role of County staff to independently evaluate the proposed Findings, and to make a recommendation to the Board regarding their adequacy. It is the exclusive discretion of the Board, as decision-maker responsible for certifying the EIR, to determine the adequacy of the proposed Findings.

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. (CEQA Guidelines, § 15093.) For a project that has significant impacts that cannot feasibly be avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a Statement of Overriding Considerations setting forth the specific reasons why the agency found that the project's “benefits” render “acceptable” its “unavoidable adverse environmental effects”. (CEQA Guidelines, §§ 15093, 15043(b); Pub. Resources Code, § 21081(b).)

a. Record of Proceedings

The record of proceedings for the Project upon which the Board's Findings are based includes, but is not limited to, the following:

- The Notice of Preparation (NOP) and all other public notices issued by the County in conjunction with the project;
- All responses to the NOP received by the County;

¹ There are no changes or alterations within the responsibility of and jurisdiction of another public agency such that Finding 2 is not applied below.

- The Recirculated Draft PEIR;
- The Final PEIR;
- All written comments submitted by agencies or members of the public during the public review comment periods;
- All responses to the written comments included in the Final PEIR;
- The Mitigation Monitoring and Reporting Program;
- The reports and technical memoranda included or referenced in any responses to comments in the Final PEIR;
- All documents, studies, EIRs, or other materials incorporated by reference in, or otherwise relied upon during the preparation of, the Recirculated Draft PEIR and the Final PEIR;
- Any documents expressly cited in these Findings; and
- Any other relevant materials constituting the record of proceedings pursuant to Public Resources Code Section 21167.6(e).

b. Custodian and Location of Records

The following Findings of fact are based in part on the information contained in the EIR for the Project, as well as additional facts found in the complete record of proceedings. The County is the custodian of the Administrative Record for the Project. This information is provided in compliance with Public Resources Code section 21081.6(a)(2) and CEQA Guidelines section 15091(e).

The 2045 CAP Environmental Impact Report consists of:

1. Draft Program Environmental Impact Report dated May 2022;
2. Recirculated Draft Program Environmental Impact Report dated March 2023; and
3. Final Program EIR dated October 2023 consisting of the Recirculated Draft PEIR and the Final PEIR, which together provide in one place all clarifications, corrections, and minor revisions to the text, tables, figures, and appendixes of the Recirculated Draft PEIR generated either from responses to comments or independently by the County.

The EIR is hereby incorporated by reference and is available for review with all documents and other materials that constitute the record of proceedings for the County's actions related to the Project. The complete record of proceedings is available at Los Angeles County, Department of Regional Planning, 320 W. Temple Street 13th Floor, Los Angeles CA 900012. Copies of the documents that constitute the record of proceedings are also on the County's website. The Final PEIR, Notice of Availability, and Notice of Completion are also located on the County's website at <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>.

II. DESCRIPTION OF THE PROJECT

The Project, e.g., the Draft 2045 CAP as described in the Final PEIR, is up for approval. Subsections a., b., and c. below summarize the main components of the Project, including location, objectives, and implementation.

a. Project Location

The Project is not constrained to a single location within the region. Rather the Project area for the 2045 CAP consists of the unincorporated areas of Los Angeles County. These unincorporated areas occupy approximately 1,696,000 acres, or 2,650 square miles. Altogether, the Project area accounts for approximately 65 percent of the total land area of Los Angeles County.

b. Project Objectives

Overall, the 2045 CAP represents the County's plan to meet greenhouse gas (GHG) emissions reduction targets for unincorporated Los Angeles County by the years of 2030, 2035, and 2045. It was developed with the goal to implement the GHG emissions reduction policies of the General Plan Air Quality Element, and to ensure the County contributes its fair share to statewide GHG emissions reductions. The Project addresses the following objectives:

1. Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan.
2. Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals.
3. Provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets.
4. Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan.
5. Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a "qualified CAP") via the 2045 Climate Action Plan Consistency Review Checklist (2045 CAP Checklist).

c. Project Overview and Implementation

The 2045 CAP now being considered for approval reflects the further development and refinement that resulted from public review of Draft 2045 CAP analyzed in the Draft PEIR and the Revised Draft 2045 CAP analyzed in the Recirculated Draft PEIR. See Section III, below, for details. The 2045 CAP identifies strategies, measures, and actions to effectively meet GHG emission reduction targets for 2030, 2035, and 2045. The 2045 CAP builds on previous County work and defines new reduction targets beyond the year 2020 that are consistent with the State of California's targets and legislative actions for GHG emissions reductions. The 2045 CAP details the GHG emissions reduction vision and goals of *OurCounty: Los Angeles Countywide Sustainability Plan* for the unincorporated Los Angeles County and implements the GHG emissions reduction strategies of the General Plan's Air Quality Element. Specifically, the 2045 CAP, once approved, would replace the existing implementation strategy of the Air Quality Element called the Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP). Approval of the 2045 CAP would require an amendment to the General Plan to replace the 2020 CCAP, an

implementing component of the General Plan's Air Quality Element. The 2045 CAP is a policy document intended to reduce community-wide GHG emissions and would support development allowed under the General Plan. No changes to General Plan land use designations, zoning, or land use, or specific projects, are proposed as part of the 2045 CAP.

Implementation of the 2045 CAP would occur over the following three phases, which takes advantage of easier short-term measures and actions to meet the 2030 target and then builds up to more complex solutions as the 2035 target and 2045 target dates approach:

- Phase 1: Short-Term Actions (2024–2030)—Short-term actions that are high-priority with large emissions reductions that would lay the foundation for longer term actions. The short-term target of the 2045 CAP is to reduce GHG emissions in the County by 40 percent below 2015 levels by 2030.
- Phase 2: Medium-Term Actions (2030–2035)—Actions needed to achieve the 2030 or 2035 GHG emissions reduction targets that may need additional time, funding, or new technology to implement. The medium-term target of the 2045 CAP is to reduce GHG emissions in the County by 50 percent below 2015 levels by 2035.
- Phase 3: Long-Term Actions (2035–2045)—Actions needed to achieve the 2045 GHG emissions reduction target that may need substantial time, funding, or new technology to implement. The long-term target of the 2045 CAP is to reduce GHG emissions in the County by 83 percent below 2015 levels by 2045. The long-term aspirational goal of the 2045 CAP is to achieve carbon neutrality in the County by 2045.

The Draft 2045 CAP includes the following:

- A GHG emissions inventory for 2018.
- Emissions forecasts for 2030, 2035, and 2045.
- GHG emissions targets for 2030, 2035, and 2045.
- A long-term aspirational goal for carbon neutrality by 2045.
- A suite of GHG emissions reduction strategies, measures, and actions to reduce GHG emissions from major sectors.
- A technical modeling appendix to explain the Draft 2045 CAP's GHG emissions reduction estimates.
- A consideration of environmental justice and equity concerns.
- Implementation and monitoring measures to ensure successful climate action.
- A new development review consistency checklist to allow future projects to streamline GHG emissions analyses pursuant to CEQA as anticipated by CEQA Guidelines section 15183.5 by using the 2045 CAP.

III. ENVIRONMENTAL REVIEW PROCESS AND PUBLIC PARTICIPATION

The County of Los Angeles is the lead agency responsible for conducting environmental review under CEQA and shall be primarily responsible for carrying out the Project. The County issued a Draft PEIR for the Draft 2045 CAP on May 25, 2022. After the July 18, 2022 conclusion of the comment period for the Draft PEIR, the County elected to revise the Draft 2045 CAP in response to public and other input received, and to transition the Draft 2045 CAP's aspirational goal of carbon neutrality by 2045 into a

target consistent with new legislation, Assembly Bill (AB) 1279. AB 1279 was enacted in September 2022 after the close of the Draft PEIR comment period.

The County released the Revised Draft 2045 CAP on March 16, 2023. The County issued a Recirculated Draft PEIR on the Revised Draft 2045 CAP on March 24, 2023, in compliance with CEQA. The Recirculated Draft PEIR describes changes to the Draft 2045 CAP in Chapter 2, *Project Description*, and analyzes the Project as revised on a resource-by-resource basis throughout Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. It also adds content to address issues raised by public comments on the Draft PEIR and makes other minor clarifications. The Recirculated Draft PEIR wholly replaced the May 2022 Draft PEIR.

Pursuant to CEQA Guidelines section 15085, upon publication of the Recirculated Draft PEIR, the County filed a Notice of Completion with the Governor’s Office of Planning and Research, State Clearinghouse, indicating that the Recirculated Draft PEIR had been completed and was available for review and comment by the public. The County also posted a Notice of Availability of the Recirculated Draft PEIR at this time pursuant to CEQA Guidelines section 15087. During the public review period, beginning March 30, 2023 and ending on May 15, 2023, the County received comments on the environmental document. Comments were received via email to: climate@planning.lacounty.gov; and by mail at: Los Angeles County Department of Regional Planning 320 W. Temple Street 13th Floor, Los Angeles CA 90012. After the close of public review period, the County provided responses in writing to all comments received on the Recirculated Draft PEIR. See Table 1 below for a list of the parties who commented on the Recirculated Draft PEIR.

| Name | Date(s) | Response to Comment |
|---|-----------------------|---|
| Agencies and Tribes | | |
| California Air Resources Board | 5/15/2023 | Responses are provided in Section 2.3.1, Responses to Comments from Agencies and Tribes. See Letter A1. |
| San Manuel | 4/26/2023 | Responses are provided in Section 2.3.1, Responses to Comments from Agencies and Tribes. See Letter A2. |
| Los Angeles County Sanitation Districts | 5/15/2023 | Responses are provided in Section 2.3.1, Responses to Comments from Agencies and Tribes. See Letter A3. |
| Organizations | | |
| Abundant Housing LA | 5/15/2023 | This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP. |
| Acton Town Council | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter O2. |
| Altadena Town Council | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter O3. |
| Altadena Wild | 5/15/2023 | This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP. |
| BizFed | 5/9/2023 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter O5a and Letter O5b. |

| Name | Date(s) | Response to Comment |
|---|----------------|---|
| Building Industry Association | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter O6. |
| Center for Biological Diversity | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter O7. |
| Communities for a Better Environment | 5/16/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter O8. |
| Endangered Habitats League | 4/11/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter O9. |
| FivePoint Newhall Land and Farming Company | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter 10. |
| League of Women Voters | 3/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter 12. |
| Santa Clarita Organization for Planning and the Environment | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter 13. |
| Southwest Mountain States Regional Council of Carpenters | 5/12/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter 14. |
| Tejon Ranch Company | 5/15/2023 | Responses are provided in Section 2.3.2 Responses to Comments from Organizations. See Letter 15. |
| The Greenlining Institute | 5/15/2023 | This comment on the Revised Draft 2045 CAP does not raise significant environmental issues related to the Recirculated Draft PEIR, and no further response is required on this issue pursuant to CEQA Guidelines section 15088(a). Nonetheless, see Chapter 1, which addresses generally comments received on the Revised Draft 2045 CAP. |
| Individuals | | |
| Chelsea Katan | 4/10/2023 | Responses are provided in Section 2.3.3 Responses to Comments from Individuals. See Letter I1. |
| Emmanuel Alcantar | | Responses are provided in Section 2.3.3 Responses to Comments from Individuals. See Letter I2. |

The CEQA process includes public involvement at several steps, including consultation with California Native American Tribes consistent with AB 52. (Pub. Resources Code, § 21080.3.1). AB 52 establishes a process for CEQA lead agencies to consult with tribes that are traditionally and culturally affiliated with a project area—here, the unincorporated areas of Los Angeles County. For this Project, the County also invited public involvement in the form of public review of the Draft 2045 CAP and the Revised Draft 2045 CAP; and as part of the CEQA scoping process and following issuance of the Draft PEIR and Recirculated Draft PEIR.

IV. EIR CERTIFICATION PROCESS

The County released the Final PEIR on October 12, 2023 and posted the Final PEIR on its website. The County submitted the Final PEIR with the Governor’s Office of Planning and Research on October 23, 2023, per Cal. Code of Reg. Title 14 Chap. 3 ss 15089(b).

Prior to considering adoption of these Findings on November 15, 2023, pursuant to CEQA Guidelines section 15090, the Board certified that:

- The EIR has been completed in compliance with CEQA;

- The EIR was presented to the decision-making body of the lead agency – Los Angeles County Board of Supervisors – and that the decision-making body reviewed and considered the information contained in the EIR prior to approving the Project; and
- The EIR reflects the lead agency’s independent judgment and analysis.

Following publication of the Final PEIR, County staff has recommended the Board approve the Project as identified in the Final PEIR. The Findings and Statement of Overriding Considerations herein address the Project.

V. SUMMARY OF IMPACTS

Impacts associated with specific environmental resource areas resulting from the Project are summarized in Table ES-2 of the Recirculated Draft PEIR (p. ES-20 et seq.) and discussed below.

The EIR concludes that the Project will have a less-than-significant impact with mitigation measures incorporated on some components of the following issue areas:

- Aesthetics (Impacts 3.2-5 and 3.2-10)
- Air Quality (Impacts 3.4-3b and 3.4-7 [Valley Fever])
- Biological Resources (Impacts 3.5-1, 3.5-4, 3.5-6, and 3.5-9)
- Cultural Resources (All impacts)
- Hazards and Hazardous Materials (Impact 3.10-2, 3.10-3, 3.10-6, 3.10-8, 3.10-9, and 3.10-12)
- Hydrology and Water Quality (Impacts 3.11-5 and 3.11-11)
- Transportation (Impacts 3.15-1, 3.15-3, 3.15-4, and 3.15-6)
- Tribal Cultural Resources (All impacts)
- Wildfire (Impacts 3.18-1, 3.18-3, 3.18-5, 3.18-6, 3.18-8, and 3.18-10)

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe any significant impacts, including those that can be mitigated but not reduced to a less-than-significant level. The Project, as a result of the implementation of projects facilitated by the 2045 CAP, would have a significant and unavoidable impact on some components of the following environmental resource areas:

- Aesthetics (Impacts 3.2-1, 3.2-2, 3.2-3, 3.2-4, 3.2-6, 3.2-7, 3.2-8, and 3.2-9)
- Agriculture and Forestry (Impacts 3.3-1, 3.3-2, 3.3-5, 3.3-7, 3.3-8, and 3.3-11)
- Air Quality (Impacts 3.4-1, 3.4-2, 3.4-3a, 3.4-5, 3.4-6, and 3.4-7 [local Air Pollutant and toxic air contaminant {TAC} emissions])
- Biological Resources (Impacts 3.5-2, 3.5-3, 3.5-5, 3.5-7, 3.5-8, 3.5-10, and 3.5-11)
- Noise and Vibration (All impacts)
- Utilities and Service Systems (Impact 3.17-1, 3.17-3, 3.17-5, and 3.17-7)

CEQA does not require specific Findings to be made for impacts that would be less than significant without the incorporation of mitigation measures. The EIR concludes that the Project will have a less-than-significant impact and require no mitigation measures with respect to components of the following issue areas:

- Agriculture and Forestry (Impacts 3.3-3, 3.3-4, 3.3-6, 3.3-10, and 3.3-12)
- Air Quality (Impacts 3.4-4 and 3.4-8)
- Geology and Soils (All Impacts)
- Greenhouse Gas Emissions (All impacts)
- Hazards and Hazardous Materials (Impact 3.10-1, 3.10-4, 3.10-5, 3.10-7, 3.10-10, and 3.10-11)
- Hydrology and Water Quality (Impacts 3.11-1, 3.11-2, 3.11-3, 3.11-4, 3.11-6, 3.11-7, 3.11-8, 3.11-9, 3.11-10, and 3.11-12)
- Land Use and Planning (All impacts)
- Population and Housing (All impacts)
- Transportation (Impacts 3.15-2 and 3.15-5)
- Utilities and Service Systems (Impact 3.17-2, 3.17-4, 3.17-6, and 3.17-8)
- Wildfire (Impacts 3.18-2, 3.18-4, 3.18-7, and 3.18-9)

VI. FINDINGS OF FACT REGARDING THE PROJECT'S SIGNIFICANT AND LESS-THAN-SIGNIFICANT ENVIRONMENTAL IMPACTS

In making each of the findings below, the County has considered the plans, programs, and policies discussed in the PEIR.

a. Findings Regarding Project Impacts Determined to Be Less Than Significant with Mitigation Incorporated

The following significant impacts were analyzed in the PEIR. Because of the environmental analysis of the Project; presumed compliance with existing laws, codes, and statutes; and the identification and incorporation of feasible mitigation measures, the following significant impacts have been determined by the County to be reduced to a level of less than significant; and the County has found – in accordance with Public Resources Code section 21081(a)(1) and the CEQA Guidelines section 15091(a)(1) – that “Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant effects on the environment as identified in the final EIR.” This is referred to herein as “Finding 1.” Please refer to the PEIR for a further discussion of impacts within each resource section.

i) Aesthetics

Impact 3.2-5: Projects facilitated by the 2045 CAP would create a new source of substantial shadow, light, or glare, which would adversely affect day or nighttime views in the area.

Finding 1: Mitigation measures would reduce the Project's impacts due to the creation of a new source of substantial shadow, light, or glare, which would adversely affect day or nighttime views in the area to less-than-significant levels. The Board finds that Mitigation Measure 3.2-3, described below, is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The implementation of Mitigation Measure 3.2-3, Reduce Light and Glare Impacts, would ensure that lighting from projects facilitated by the 2045 CAP would not substantially intrude on daytime or nighttime views in the area because its provisions would

substantially limit light trespass and confine generated light to within project boundaries. Also, adhering to design and siting requirements would reduce the potential for glare. Accordingly, with the implementation of Mitigation Measure 3.2-3, Impact 3.2-5 would be reduced to less than significant.

Mitigation Measures:

Mitigation Measure 3.2-3: Reduce Light and Glare Impacts (Recirculated Draft PEIR, p. 3.2-18)

To reduce significant light and glare impacts of projects facilitated by the 2045 CAP, the County shall require the following measures to be incorporated: a) All lighting shall be focused toward the site and outdoor lighting shall be directed downward; b) The design of exterior light fixtures shall incorporate shielding to prevent glare and offsite light spillage; c) Outdoor lighting shall include non-glare fixtures; and d) Structure design shall include exterior finishes and materials that would be minimally reflective or sited or oriented in such a way as to direct glare away from sensitive receptors.

Impact 3.2-10: Projects facilitated by the 2045 CAP would not cause or contribute to a new source of substantial shadow, light or glare, which would result in a significant cumulative impact to views in the area.

Finding 1: Mitigation measures would reduce the Project's impacts related to causing or contributing to a new source of substantial shadow, light or glare, which would result in a significant cumulative impact to views in the area to less-than-significant levels. The Board finds that Mitigation Measure 3.2-3 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than cumulatively considerable and therefore, less than significant.

Facts in Support of Finding: Pre-mitigation, the cumulative impact attributable to nighttime lighting would be significant, and the Project's contribution to this impact would be cumulatively considerable as a result of the incremental impacts of the implementation of projects facilitated by the 2045 CAP. However, the implementation of Mitigation Measure 3.2-3 would ensure that nighttime lighting associated with projects facilitated by the 2045 CAP would not substantially intrude on daytime or nighttime views in the area because its provisions would substantially confine generated light to within the projects' boundaries. Accordingly, with the implementation of Mitigation Measure 3.2-3, the Project's contribution to cumulative impacts would be less than cumulatively considerable, and therefore less than significant.

Mitigation Measures:

Mitigation Measure 3.2-3. See Impact 3.2-5 for a discussion of this mitigation measure.

ii) Air Quality

Impact 3.4-3b: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would not expose sensitive receptors to substantial pollutant concentrations relating to Valley Fever.

Finding 1: Mitigation measures would reduce the Project's impacts relating to exposing sensitive receptors to substantial pollutant concentrations relating to Valley Fever to less-than-significant levels. The Board finds that Mitigation Measures 3.4-1, 3.4-2, and 3.4-8 described below, are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Projects facilitated by the 2045 CAP would result in a significant impact related to exposure of sensitive receptors to substantial pollutant concentrations related to Valley Fever. Implementation of Mitigation Measures 3.4-1 and 3.4-2 would control and reduce fugitive dust emissions and reduce potential off-site exposures. Mitigation Measure 3.4-8 would reduce potential exposures to construction workers located on-site and off-site, reducing this impact to a less-than-significant level. Because the exact specifications for projects that may be facilitated by the 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045. Although the magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets, the impact would remain less than significant for all horizon years.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions (Recirculated Draft PEIR, p. 3.4-51 et seq.)

If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the applicable air quality management district (AQMD) adopted thresholds of significance, the lead agency shall require applicants for new projects facilitated by the 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:

- When wind gusts exceed 25 miles per hour, cease all active construction activities or follow the applicable guidelines outlined in Table 3 of SCAQMD Rule 403 or Sections (C)(10) through (C)(14) of AVAQMD Rule 403.
- Use construction equipment rated by the U.S. Environmental Protection Agency (USEPA) as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower, as commercially available.
- Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limit nonessential idling of construction equipment to no more than five consecutive minutes.
- Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- Water all active construction areas at least three times daily or four times daily if needed to control dust emissions. Watering should be sufficient to prevent airborne visible dust from leaving the site. Where local water supplies are not available in sufficient quantities within unincorporated areas of the County, use nontoxic chemical soil stabilizers or dust suppressants to control dust emissions in sufficient amounts to prevent airborne visible dust from leaving the site.
- Increase watering frequency and/or application frequency of nontoxic chemical soil stabilizers or dust suppressants whenever wind speeds exceed 25 miles per hour. Reclaimed water shall be used whenever possible.

- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
- Pave, apply water three times daily or as often as necessary to control dust, or where local water supplies are not available in sufficient quantities within unincorporated areas of the County, apply (nontoxic) soil stabilizers or dust suppressants on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust.
- Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Project site, or as often as needed, to keep streets free of visible soil material.
- Where local water supplies are not available in sufficient quantities within unincorporated areas of Los Angeles County, hydroseed or apply nontoxic chemical soil stabilizers or dust suppressants to inactive construction areas.
- Enclose, cover, water three times daily, or apply nontoxic chemical soil stabilizers or dust suppressants to exposed stockpiles (dirt, sand, etc.).
- In areas with existing vegetation, install the facility components with minimal disturbance. Take all necessary precautions to not use vehicles or machinery for grading or alter the existing grade in these areas.
- Design project facilities to limit ground disturbance or grading to only the access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. Ensure that the facilities comply with all applicable grading standards.
- Site utility-scale renewable energy projects in a way that minimizes site disturbance, such as grading, brush clearance, and other forms of earthwork.
- In areas with existing vegetation, install facility components with minimal disturbance. Take all necessary precautions to avoid using vehicles or machinery for grading, or altering the existing grade in these areas.
- Establish and maintain a landscaped buffer:
 - Maintain a landscaped area at least 10 feet deep along any facility perimeter fencing and between such fencing and any public right-of-way or adjacent property with an existing residential or agricultural use.
 - Establish the landscaped area in such manner that adequate corner sight distance is maintained from all access roads to the public right-of-way to the satisfaction of the County of Los Angeles Department of Public Works.
 - Maintain the landscaped area throughout the life of the facility.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions (Recirculated Draft PEIR, p. 3.2-53 et seq.)

If, during subsequent project-level environmental review, operational fugitive dust emissions are determined to have the potential to be significant, the lead agency shall require applicants for new projects facilitated by the 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during operational activities. Mitigation measures that may be identified during the environmental review include, but are not limited to, the following:

- Unpaved main access roads for operational vehicle trips shall be paved or effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air Resources Board–approved soil stabilizers, and that shall not increase any other environmental impacts, including loss of vegetation.
- All other unpaved roads shall be stabilized using water or soil stabilizers so that vehicle travel on these roads does not cause visible dust plumes.
- Gravel pads, grizzly strips, or other material track-out control methods approved for use by the local AQMD shall be installed where vehicles enter or exit unpaved roads onto paved roadways.
- Traffic speeds on unpaved roads shall be limited to no more than 10 miles per hour, except that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. Traffic speed signs shall be displayed prominently at all site entrances and at egress point(s) from the central maintenance complex.
- Where acceptable to the local and County fire departments, all unpaved, non-road surfaces that may potentially be disturbed shall be covered with a minimum of 3 inches of mulch. Where acceptable to the local and County fire departments, vegetation shall be maintained at 6 inches height.
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least 6 inches of freeboard (minimum vertical distance between top of the load and top of the trailer) in accordance with California Vehicle Code Section 23114.
- A fugitive dust control plan that includes a dust plume response plan shall be prepared for review and approval by applicable agencies before any earthwork activities.
- Where acceptable to the local and County fire departments, weed control shall be accomplished by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- Existing vegetation may be mowed, but removal of existing vegetation root systems shall be prohibited, except where necessary for construction of access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County.
- Continuous particulate monitors shall be installed at the discretion of the lead agency.

Mitigation Measure 3.4-8: Valley Fever (Recirculated Draft PEIR, p. 3.4-71).

During heavy grading where the top 12–18 inches of soil would be disturbed, and in locations with potential Valley Fever fungal spores, applicants for projects facilitated by the 2045 CAP measures shall require construction contractors to comply with the following measures as feasible to reduce potential Valley Fever impacts:

- Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations.
- Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems.
- Require crews to work upwind from excavation sites where possible.
- Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- During rough grading and construction, ensure that the access way into the project site from adjoining paved roadways is paved or treated with environmentally safe dust control agents.

Impact 3.4-7: The Project, as a result of projects facilitated by the 2045 CAP, could contribute to a significant cumulative impact, to air quality associated with Valley Fever.

Finding 1: Mitigation measures would reduce the Project's impacts relating to contributions of the projects facilitated by the 2045 CAP to a significant cumulative impact to air quality associated with Valley Fever to less-than-significant levels. The Board hereby makes Finding 1 and determines this impact to be less than cumulatively considerable and therefore, less than significant.

Facts in Support of Finding: Valley Fever cumulative impacts would be significant, and the Project's contribution would be cumulatively considerable; however, implementation of Mitigation Measures 3.4-1: Construction Emissions; 3.4-2: Operational Fugitive Dust Emissions; and 3.4-8: Valley Fever; would reduce Valley Fever cumulative impacts to less than significant.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions. See Impact 3.4-3b for a discussion of this mitigation measure.

Mitigation Measure 3.4-2. Operational Fugitive Dust Emissions. See Impact 3.4-3b for a discussion of this mitigation measure.

Mitigation Measure 3.4-8. Valley Fever. See Impact 3.4-3b for a discussion of this mitigation measure.

iii) Biological Resources

Impact 3.5-1: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would have a substantial direct adverse impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Finding 1: Mitigation measures would reduce the Project's substantial direct adverse impacts on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS to less-than-significant levels. The Board finds that Mitigation Measures 3.5-1, 3.4-2, and 3.4-8 described below are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: A total of 275 special-status plant species and 239 special-status wildlife species have been documented in Los Angeles County. While the 2045 CAP is a policy document and does not include specific projects that would have adverse impacts on special-status species and their habitat, various projects facilitated by the 2045 CAP measures and actions could adversely affect special-status species and their habitat. Measures to protect biological resources would come from two sources: the County's General Plan 2035 and the EIR for the Project.

The County adopted a General Plan update in 2015, which included biological resources mitigation measures General Plan Mitigation Measure BIO-1 and General Plan Mitigation Measure BIO-2. These measures would protect biological resources from impacts resulting from implementation of projects facilitated by the 2045 CAP measures and actions. Briefly, General Plan Mitigation Measure BIO-1 would require project-level surveys and analysis to characterize the project site and determine the presence/absence of special-status species in advance of a future discretionary project approval. If construction activities could cause direct impacts to special-status species, then General Plan Mitigation Measure BIO-2 requires the identification and implementation of mitigation measures and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities. The text of General Plan Mitigation Measures BIO-1 and BIO-2 is set forth in full in the Mitigation Monitoring and Reporting Program for this Project.

Mitigation Measure 3.5-1 and Mitigation Measure 3.5-2 also would be followed and enforced to protect biological resources. Mitigation Measure 3.5-1 would ensure that, on a project-specific level, necessary surveys would be conducted, and a biological resources assessment prepared to analyze the specific impacts of projects facilitated by the 2045 CAP and would propose appropriate mitigation measures to offset those impacts. Mitigation Measure 3.5-2 would avoid direct mortality to special-status species from construction activities by requiring preconstruction surveys (and construction monitoring where warranted) for special-status species as necessary. Federal and state regulations would continue to apply. Mitigation measures would apply only if specific projects have significant impacts.

Mitigation Measures:

Mitigation Measure 3.5-1 (Recirculated Draft PEIR, p. 3.5-19)

The County shall require biological resources to be analyzed on a project-specific level by a qualified biological consultant. Prior to or during the preparation of project-level environmental documents, and prior to the start of construction activities, a biological resources assessment shall be conducted to characterize the project site. Suitable buffer areas surrounding the project site shall be included where native habitat is contiguous with off-site habitat areas. The assessment and analysis shall emphasize identifying endangered, threatened, rare, and other special-status species; regionally and locally unique species; and sensitive natural communities, jurisdictional waters, and oak woodlands. Focused surveys shall be conducted as necessary to

determine the presence of special-status species (e.g., focused sensitive plant or wildlife surveys). Focused surveys shall be conducted according to established CDFW or USFWS protocols, if available for the object species. Natural communities shall be mapped and identified according to floristic alliance- and/or association-based mapping protocols consistent with CDFW natural communities. A jurisdictional delineation may be required if there are signs of potentially regulated wetlands and non-wetland waters. A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze direct and indirect impacts on biological resources, and propose mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as those species with potential to occur on-site).

Mitigation Measure 3.5-2 (Recirculated Draft PEIR, p. 3.5-19 et seq.)

If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as described in Mitigation Measure 3.5-1) shall include a mitigation measure requiring pre-construction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. The mitigation measures shall also include consultation with and obtaining permits from USFWS or CDFW prior to construction, if required by FESA or CESA for listed endangered and threatened species. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite habitat areas. Relocation of such species into areas of appropriate restored habitat would have the best chance of replacing/incrementing populations that are lost due to habitat converted to development. Relocation to restored habitat areas shall be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume.

Impact 3.5-4: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would have a substantial adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.

Finding 1: Mitigation measures would reduce the Project's impacts on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means to less-than-significant levels. The Board finds that Mitigation Measures 3.5-1 and 3.5-3, described below, are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Impacts of projects facilitated by the 2045 CAP may be significant in the absence of mitigation measures. The Conservation and Natural Resources Element of the General Plan would continue to be followed and enforced to protect biological resources, including through General Plan Mitigation Measures BIO-1 and BIO-2. The implementation of Mitigation Measures 3.5-1 and 3.5-3 identified in the EIR also would be required. For example, Mitigation Measure 3.5-1 would ensure that surveys are conducted to identify any state or federally protected wetlands prior to any new development projects implemented under the 2045

CAP measures. Mitigation Measure 3.5-3 would ensure that new projects facilitated by 2045 CAP measures and actions would provide appropriate mitigation for impacts on state and federally protected wetlands. Federal and state regulations would continue to apply. Thus, with the implementation of the recommended mitigation measures, impacts on state or federally protected wetlands due to the implementation of projects facilitated by the 2045 CAP would be less than significant.

Mitigation Measures:

[Mitigation Measure 3.5-1](#). See Impact 3.5-1 for a description of this mitigation measure.

[Mitigation Measure 3.5-3 \(Recirculated Draft PEIR, p. 3.5-23\)](#)

Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project applicant shall obtain a Clean Water Act Section 404 permit from USACE, a Clean Water Act Section 401 certification from the RWQCB, and a Streambed Alteration Agreement/LSAA permit under Section 1602 of the California Fish and Game Code from CDFW, where the project warrants.

Impact 3.5-6: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.).

Finding 1: Mitigation measures would reduce the Project's impacts regarding the conversion of oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10 percent canopy cover with oaks at least 5 inches in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua tree, Southern California black walnut, etc.) to less-than-significant levels. The Board finds that Mitigation Measures 3.5-1 and 3.5-5 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Mitigation Measures 3.5-1 and 3.5-5 would reduce impacts to oak woodlands and other unique native woodlands by requiring surveys and impact analyses for these resources, and measures to reduce or compensate for impacts. With the implementation of these mitigation measures, impacts on oak woodlands and other unique native woodlands would be less than significant.

Mitigation Measures:

[Mitigation Measure 3.5-1](#). See Impact 3.5-1 for a description of this mitigation measure.

[Mitigation Measure 3.5-5 \(Recirculated Draft PEIR, p. 3.5-26\)](#)

Proponents of projects resulting in the loss of oak woodlands shall mitigate with in-kind replacement habitat at a minimum of 1:1 mitigation ratio documented through a County-approved habitat mitigation plan. The plan shall include the number of replacement trees (or acreage and average density of woodland), location of replacement woodland, understory habitat components, sequencing for any phased tree removal, and performance standards for mitigation. The plan shall include monitoring for a minimum of five years, with annual reports submitted to the County.

For oak woodlands impacts, project mitigation shall be consistent with recommendations in the County's Oak Woodland Conservation Management Plan and its 2014 Guide. If a project cannot be redesigned to avoid impacts to oak woodlands, an appropriate mitigation strategy would be developed by selecting from the Guide's list of recommended mitigation measures prioritizing the acquisition of oak woodland habitat comparable to the habitat that was affected over the restoration of degraded off-site and in-lieu fees. A Mitigation Monitoring Plan consistent with the Guide's recommendations would be prepared and implemented.

Impact 3.5-9: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would contribute to a substantial cumulative adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.

Finding 1: Mitigation measures would reduce the Project's contribution to a substantial cumulative adverse impact on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means to less-than-significant levels. The Board finds that Mitigation Measures 3.5-1 and 3.5-3 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The 2045 CAP would contribute a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.5-1 and 3.5-3. With the implementation of these mitigation measures and compliance with the regulatory agencies of USACE, CDFW, and RWQCB implementing their "no net loss" of biological resource habitat policies, the Project-specific, incremental contribution, in combination with the cumulative projects' impacts on special-status species over the span of the 2045 CAP, would not be cumulatively considerable. A less-than-significant cumulative impact on wetlands would result.

Mitigation Measures:

Mitigation Measure 3.5-1. See Impact 3.5-1 for a description of this mitigation measure.

Mitigation Measure 3.5-3: See Impact 3.5-4 for a description of this mitigation measure.

Proponents for individual projects facilitated by the 2045 CAP provisions shall analyze impacts on wildlife movement and corridors that may introduce new or additional barriers to wildlife dispersal or constrain existing wildlife corridors to future movement, or indirect impacts constraining future wildlife movement. Where projects may interfere with wildlife movement, alternative designs shall be included in the analysis to reduce wildlife movement impacts. Corridors, linkages, and pinch points shall not be entirely closed by any development, and partial mitigation shall be mandatory for project-specific impacts on wildlife corridors and wildlife nursery sites. This shall include provision of a minimum of half the corridor width. (The width shall be at least what is needed to remain connective for the top predators using the corridor.) Mitigation can include preservation by deed in perpetuity of other parts of the wildlife corridor connecting through the development area; it can include native landscaping to provide cover on the corridor. For nursery site impacts, mitigation shall include preservation by deed in perpetuity for another comparable nursery site of the same species.

iv) Cultural Resources

Impact 3.6-1: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines section 15064.5.

Finding 1: Mitigation measures would reduce the Project's impacts relating to causing a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines section 15064.5 to less-than-significant levels. The Board finds that Mitigation Measures 3.6-1, 3.6-2, 3.6-3, 3.6-4, 3.6-5, and 3.6-6 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, due to projects facilitated by 2045 CAP measures and actions, would result in a less-than-significant impact on historical resources after implementation of Mitigation Measures 3.6-1 through 3.6-6. The implementation of these measures would reduce significant impacts on historical resources resulting from projects facilitated by 2045 CAP measures and actions by avoiding or reducing the significant impact. Mitigation Measure 3.6-1 requires identification of historical resources of a built nature that could be affected by a project to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that projects be designed to conform with the Secretary of the Interior's Standards to avoid or reduce significant impacts on such resources. Mitigation Measure 3.6-2 requires identification of significant archaeological resources (i.e., resources considered historical resources or unique archaeological resources) to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that archaeological/Native American monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent significant impacts on such resources. Mitigation Measure 3.6-3 requires that construction personnel involved in ground-disturbing activities be trained in the identification of cultural resources to assist in avoidance or minimizing of inadvertent potentially significant impacts on such resources. Mitigation Measures 3.6-4 and 3.6-5 require that significant archaeological resources be avoided and preserved in place if feasible. If avoidance and preservation in place is not feasible, then data recovery is required to recover the scientifically consequential information contained in the resource, which would avoid or reduce significant adverse impacts on the resource. Mitigation Measure 3.6-6 provides for final disposition of archaeological materials, such as curation or donation to a Native American group or other entity, to reduce significant impacts on such resources by preserving the materials for those with research or educational interests.

Mitigation Measures:

Mitigation Measure 3.6-1: Historic Resources Assessment (Recirculated Draft PEIR, p. 3.6-24)

Prior to demolition or alteration of buildings and/or structures or the construction of aboveground infrastructure with potentially significant impacts on historic architectural resources, the project proponent shall retain an architectural historian meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738–44739) (Qualified Architectural Historian) to conduct a historic resources assessment of affected properties. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a review of other pertinent archives and sources; a pedestrian field survey; recordation of all identified historic architectural resources on California Department of Parks and Recreation (DPR) 523 forms; evaluation of resources which may be eligible for listing in the California

Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment for each future project facilitated by 2045 CAP measures and actions. If a historic architectural resource is found eligible by the Qualified Architectural Historian, then the Qualified Architectural Historian shall coordinate with the project proponent and the County to ensure the project is constructed in conformance with the Secretary of the Interior's Standards. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to historic resources assessments and Secretary of the Interior's Standards plan reviews).

Mitigation Measure 3.6-2: Archaeological Resources Assessment (Recirculated Draft PEIR, p. 3.6-24 et seq.)

Prior to conducting construction activities that would involve ground disturbance, the project proponent shall retain an archaeologist meeting the minimum PQS set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738–44739) (Qualified Archaeologist) to conduct an archaeological resources assessment. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a Sacred Lands File search at the California Native American Heritage Commission (NAHC); geoarchaeological review including a focused assessment of land use history and any available geotechnical data to assess the potential for subsurface archaeological resources; a pedestrian field survey in instances where ground surface is exposed; recordation of all identified archaeological resources on DPR 523 forms; evaluation of resources affected by the project for eligibility for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment. Resources that do not qualify as historical resources shall be considered by the Qualified Archaeologist for qualification as unique archaeological resources as defined in Public Resources Code Section 21083.2(g). The technical report also shall provide recommendations as to whether additional studies are warranted to further identify or evaluate archaeological resources (i.e., Extended Phase I boundary delineation, Phase II testing and evaluation) and if archaeological monitoring and Native American monitoring of ground disturbing activities is warranted (e.g., in areas where there is a higher potential to encounter buried resources). Prior to the initiation of field work for any Extended Phase I or Phase II investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation's objectives, goals, and methodology. When developing a work plan for Native American resources, the County shall consult with local Native American tribes.

If archaeological/Native American monitoring is warranted, the Qualified Archaeologist shall determine the locations and duration of monitoring and reporting requirements. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to archaeological resources assessments, Extended Phase I and Phase II reports, and monitoring reports).

Mitigation Measure 3.6-3: Construction Worker Cultural Resources Sensitivity Training (Recirculated Draft PEIR, p. 3.6-25)

For projects with ground-disturbing activities that may encounter potentially significant archaeological resources, the Qualified Archaeologist shall implement a cultural resources

sensitivity training program. The Qualified Archaeologist, or its designee, shall instruct all construction personnel of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, applicable laws protecting archaeological resources, and confidentiality of discoveries. Native American monitor(s) shall be invited to participate in presenting tribal perspectives as part of the training curriculum. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. The project proponent or its contractors shall ensure construction personnel are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County.

Mitigation Measure 3.6-4: Archaeological Resources Discoveries (Recirculated Draft PEIR, p. 3.6-25)

In the event archaeological resources are encountered during construction of a project, the project proponent shall cease all activity within 50 feet of the find shall cease. The discovery shall be evaluated for significance by the Qualified Archaeologist. When assessing significance and developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. If the Qualified Archaeologist determines that the resource is significant (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), the Qualified Archaeologist shall provide a method for avoidance and preservation in place, which shall be the preferred manner of mitigating impacts. If avoidance is infeasible, the Qualified Archaeologist shall develop a Phase III Archaeological Resources Data Recovery and Treatment Plan consistent with Mitigation Measure 3.6-5. The Qualified Archaeologist also shall determine, based on the initial assessment of the discovery, whether the 50-foot buffer may be reduced. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to Extended Phase I, Phase II, and Phase III reports).

Mitigation Measure 3.6-5: Treatment of Archaeological Resources (Recirculated Draft PEIR, p. 3.6-25 et seq.)

If the assessment conducted under Mitigation Measure 3.6-2 or Mitigation Measure 3.6-4 identifies significant archaeological resources (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), then avoidance and preservation in place shall be the preferred manner of mitigating impacts. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance and preservation in place of significant archaeological resources is determined by the County to be infeasible, then the Qualified Archaeologist shall prepare a Phase III Archaeological Resources Data Recovery and Treatment Plan. The plan shall include: a detailed research design; justification for data recovery or other treatment methods depending on the nature of the resource's eligibility; excavation methodology; and, reporting and curation requirements. When developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. All Phase III reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center.

Mitigation Measure 3.6-6: Curation and Disposition of Cultural Materials (Recirculated Draft PEIR, p. 3.6-26)

The project proponent shall arrange curation for all Native American archaeological materials, with the exception of funerary objects or grave goods (i.e., artifacts associated with Native American human remains). For significant Native American archaeological materials, the project proponent shall first consider repositories that are accredited by the American Association of Museums and that meet the standards outlined in 36 CFR 79.9. If a suitable accredited repository is not identified, then the project proponent shall consider nonaccredited repositories as long as they meet the minimum standards set forth by 36 CFR 79.9. If a suitable nonaccredited repository is not identified, then the project proponent shall donate the collection to a local California Native American tribe(s). Non-significant archeological materials shall be donated to a local California Native American tribe(s). If neither an accredited or nonaccredited repository or tribe accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes. Disposition of Native American human remains and associated funerary objects or grave goods shall be determined by the landowner in consultation with the County and the MLD.

The project proponent shall curate all significant historic-period archaeological material, or portions thereof at the discretion of the Qualified Archaeologist, at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then the project proponent may curate it at a nonaccredited repository as long as it meets the minimum standards set forth in 36 CFR 79.9. If neither an accredited nor a nonaccredited repository accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes.

Impact 3.6-2: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5

Finding 1: Mitigation measures would reduce the Project's impacts relating to causing a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 to less-than-significant levels. The Board finds that Mitigation Measures 3.6-2, 3.6-3, 3.6-4, 3.6-5, and 3.6-6 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would result in less-than-significant impacts on unique archaeological resources after the implementation of Mitigation Measures 3.6-2 through 3.6-6. The implementation of these measures would reduce significant impacts on unique archaeological resources by avoiding or reducing the significant impact. Mitigation Measure 3.6-2 requires identification of unique archaeological resources to avoid or reduce inadvertent significant impacts on such resources. The measure further requires that archaeological/Native American monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent significant impacts on such resources. Mitigation Measure 3.6-3 requires that construction personnel involved in ground-disturbing activities be trained in the identification of cultural resources to assist in avoidance or minimizing of inadvertent significant impacts on such

resources. Mitigation Measures 3.6-4 and 3.6-5 require that unique archaeological resources be avoided and preserved in place if feasible. If avoidance and preservation in place is not feasible, then data recovery is required to recover the scientifically consequential information contained in the resource, which would avoid or reduce significant adverse impacts on the resource. Mitigation Measure 3.6-6 provides for final disposition of archaeological materials, such as curation or donation to a Native American group or other entity, to reduce significant impacts on such resources by preserving the materials for those with research or educational interests.

Mitigation Measures:

[Mitigation Measure 3.6-2. Archaeological Resources Assessment.](#) See Impact 3.6-1 for a description of this mitigation measure.

[Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training.](#) See Impact 3.6-1 for a description of this mitigation measure.

[Mitigation Measure 3.6-4. Archaeological Resources Discoveries.](#) See Impact 3.6-1 for a description of this mitigation measure.

[Mitigation Measure 3.6-5. Treatment of Archaeological Resources.](#) See Impact 3.6-1 for a description of this mitigation measure.

[Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials.](#) See Impact 3.6-1 for a description of this mitigation measure.

Impact 3.6-3: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Finding 1: Mitigation measures would reduce the Project's impacts relating to directly or indirectly destroying a unique paleontological resource or site or unique geologic feature to less-than-significant levels. The Board finds that Mitigation Measures 3.6-7, 3.6-8, and 3.6-9 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would result in less-than-significant impacts on unique paleontological resources and unique geologic features after implementation of Mitigation Measures 3.6-7 through 3.6-9. These measures would reduce significant impacts on unique paleontological resources by avoiding or reducing the significant impact. Mitigation Measure 3.6-7 requires, prior to any construction activities that involve ground disturbance, identification of unique paleontological resources and unique geologic features to avoid or reduce inadvertent potentially significant impacts on such resources. The measure further requires that paleontological monitoring be considered to ensure that there is an opportunity to avoid or reduce inadvertent potentially significant impacts on such resources. Mitigation Measure 3.6-8 requires that construction personnel involved in ground-disturbing activities be trained in the identification of paleontological resources to assist in avoidance or minimizing of inadvertent potentially significant impacts on such resources. Mitigation Measure 3.6-9 requires that unique paleontological resources are recovered and curated.

Mitigation Measures:

Mitigation Measure 3.6-7: Paleontological Resources Assessment and Monitoring (Recirculated Draft PEIR, p. 3.6-28 et seq.)

For projects facilitated by 2045 CAP measures and actions that involve ground disturbance, the project proponent shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for qualified professional paleontologist (Qualified Paleontologist) to prepare a paleontological resources assessment report prior to the start of construction activities. The report shall include methods and results of the paleontological resources assessment, monitoring requirements (including depths, frequency, and reporting), and maps that outline where monitoring is required. Monitoring shall follow SVP Guidelines: no monitoring of ground-disturbing activities within units of Low Sensitivity or No Potential; monitoring of all ground-disturbing activities (with depths specified) in units of Low to High Significance; and at all depths within units of High Significance unless the Qualified Paleontologist's report identifies previous disturbances or the use of construction methods which do not warrant monitoring; and monitoring at the initiation of excavation in units of Undetermined Significance. The report also shall stipulate whether screen washing is necessary to recover small specimens following SVP Guidelines and determine whether unique geologic features are present onsite. If monitoring is conducted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit it to the project proponent and the County.

Mitigation Measure 3.6-8: Paleontological Resources Sensitivity Training (Recirculated Draft PEIR, p. 3.6-29)

Prior to the start of ground-disturbing activities for projects facilitated by 2045 CAP measures and actions with potentially significant impacts on paleontological resources, the Qualified Paleontologist or its designee shall conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers. Construction workers shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The project proponent shall ensure that construction workers are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County.

Mitigation Measure 3.6-9: Paleontological Discoveries (Recirculated Draft PEIR, p. 3.6-29 et seq.)

If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area determined by the paleontological monitor shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading/excavation contractor shall assist, where feasible, in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also

be filed at the repository. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes.

If construction workers discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described earlier in this measure.

Any salvage reports resulting from implementation of this measure shall be filed with the Natural History Museum of Los Angeles County.

Impact 3.6-4: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would disturb any human remains, including those interred outside of dedicated cemeteries.

Finding 1: Mitigation measures would reduce the Project's impacts relating to disturbing any human remains, including those interred outside of dedicated cemeteries to less-than-significant levels. The Board finds that Mitigation Measure 3.6-10 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would result in less-than-significant impacts on human remains after implementation of Mitigation Measure 3.6-10. This measure would reduce significant impacts on human remains by immediately halting construction activities in the event of a possible discovery to avoid or reduce significant impacts. Mitigation Measure 3.6-10 requires the project proponent and the County to follow Health and Safety Code Section 7050.5(c) and Public Resources Code Section 5097.98 in the event Native American human remains are encountered. As a result, next steps would include halting work, notifying the County Coroner, and consulting with the Native California Indian group or person(s) that the Native American Heritage Commission designates as most likely descended from ancestral Native Americans in an area or region of California, i.e., the most likely descendant (MLD). Further, the measure requires the project proponent, the County, and the landowner to work with the MLD for treatment of the remains to avoid or reduce significant impacts, or the landowner to reinter the remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance if an agreement cannot be reached to avoid or reduce significant impacts.

Mitigation Measures:

Mitigation Measure 3.6-10: Human Remains Discoveries (Recirculated Draft PEIR, p. 3.6-30)

If human remains are encountered, then the project proponent or its contractor shall immediately halt work within 50 feet of the discovery and contact the County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, which require that no further disturbance shall occur until the County Coroner has made the necessary findings as to the remains' origin and disposition. If the County Coroner determines that the remains are Native American, then the County Coroner will notify the NAHC within 24 hours in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98. The NAHC shall then identify the person(s) thought to be the MLD. The MLD may, with the permission of the land owner, or their authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person

responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. The project proponent, the County, and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.

Until the project proponent, the County, and the landowner have conferred with the MLD, the contractor shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected according to generally accepted cultural or archaeological standards or practices (e.g., the NAHC's A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods [NAHC 2022], which reiterates statutory requirements), and that further activities take into account the possibility of multiple burials.

If the NAHC is unable to identify an MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Public Resources Code Section 5097.94(k), if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Impact 3.6-5: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on historical resources.

Finding 1: Mitigation measures would reduce the incremental contribution of projects facilitated by the 2045 CAP to a significant cumulative impact on historical resources to less-than-significant levels. The Board finds that Mitigation Measures 3.6-1 through 3.6-6 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would make a cumulatively considerable contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-1 through 3.6-6. With the implementation of these measures, the Project-specific, incremental contribution, combined with the cumulative projects' incremental impacts on historical resources over the timespan of the Project, would not be cumulatively considerable because they would specify that, before construction of aboveground infrastructure that might affect known historic architectural resources, an architectural historian must identify historical resources, provide recommendations, require archaeological monitoring, and prepare a plan for the treatment of historical resources. With the implementation of Mitigation Measures 3.6-1 through 3.6-6, a less-than-significant cumulative impact on historic resources would result.

Mitigation Measures:

Mitigation Measure 3.6-1. Historic Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

Impact 3.6-6: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on unique archaeological resources.

Finding 1: Mitigation measures would reduce the Project's impacts relating to incrementally contributing to a significant cumulative impact on unique archaeological resources to less-than-significant levels. The Board finds that Mitigation Measures 3.6-2 through 3.6-6 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-2 through 3.6-6. With the implementation of these measures, the Project-specific, incremental contribution, combined with the cumulative projects' impacts on unique archaeological resources over the span of the 2045 CAP, would not be cumulatively considerable because they would require identification and treatment of unique archaeological resources, and would thereby avoid or reduce significant impacts. With the implementation of these mitigation measures, a less-than-significant cumulative impact to unique archaeological resources would result.

Mitigation Measures:

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

Impact 3.6-7: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on unique paleontological resources or sites or unique geologic features.

Finding 1: Mitigation measures would reduce the Project's impacts relating to incrementally contributing to a significant cumulative impact on unique paleontological resources or sites with unique geologic features to less-than-significant levels. The Board finds that Mitigation Measures 3.6-7 through 3.6-9 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measures 3.6-7 through 3.6-9. With the implementation of these measures, the Project-specific, incremental contribution, combined with the cumulative projects' impacts on unique paleontological resources or sites or unique geologic features over the timespan of the Project, would not be cumulatively considerable because they would require identification and treatment of unique paleontological resources or sites or unique geologic features and would thereby avoid or reduce significant impacts. With the implementation of these mitigation measures, a less-than-significant cumulative impact on unique paleontological resources or sites or unique geologic features would result.

Mitigation Measures:

Mitigation Measure 3.6-7. Paleontological Resources Assessment and Monitoring. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-8. Paleontological Resources Sensitivity Training. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-9. Paleontological Discoveries. See Impact 3.6-3 for a description of this mitigation measure.

Impact 3.6-8: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would incrementally contribute to a significant cumulative impact on human remains, including those interred outside of dedicated cemeteries.

Finding 1: Mitigation measures would reduce the Project's impacts relating to incrementally contributing to a significant cumulative impact on human remains, including those interred outside of dedicated cemeteries to less-than-significant levels. The Board finds that Mitigation Measure 3.6-10 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would make a significant incremental contribution to this significant cumulative impact that could be mitigated to a level that would be less than cumulatively considerable (i.e., less than significant) by the implementation of Mitigation Measure 3.6-10. With the implementation of this measure, the Project-specific, incremental contribution, combined with the cumulative projects' impacts on human remains interred outside formal cemeteries over the timespan of the Project, would not be cumulatively considerable because the measure would require the project proponent and the County to follow the law governing such finds, including by halting work, notifying the County

Coroner, and consulting with the MLD or taking other specified, appropriate actions to assure treatment of the remains with appropriate dignity. If human remains of Native American origin are discovered during work associated with a project facilitated by the 2045 CAP, then the project proponent and/or the County would be required to comply with state laws related to the disposition of Native American burials (e.g., Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98). With the implementation of this mitigation measure, a less-than-significant cumulative impact would result.

Mitigation Measures:

[Mitigation Measure 3.6-10. Human Remains Discoveries](#). See Impact 3.6-4 for a description of this mitigation measure.

v) Hazards and Hazardous Materials

[Impact 3.10-2](#): The Project, as a result of solar photovoltaic (PV) and other projects facilitated by the 2045 CAP measures and actions, could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.

Finding 1: Mitigation measures would reduce the Project's impacts relating to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment to less-than-significant levels. The Board finds that Mitigation Measure 3.10-2 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste from broken cadmium telluride (CdTe) modules is disposed of properly if not recycled. Implementing this measure would reduce the impact to a less-than-significant level.

Mitigation Measures:

[Mitigation Measure 3.10-2 \(Recirculated Draft PEIR, p. 3.10-23\)](#)

The County shall require applicants of solar PV installation projects that include the use of CdTe modules to dispose of panels or recycle panels in accordance with current local, state, and federal regulations. Broken and end-of-project life PV modules, materials, and components shall be:

- Stored on-site in a manner that complies with federal and state laws until recycling or disposal actions can be taken.
- Stored on-site no longer than allowed by federal and state laws.
- Recycled in accordance with federal and state laws applicable at that time.

[Impact 3.10-3](#): Projects facilitated by the 2045 CAP would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses.

Finding 1: Mitigation measures would reduce the Project's impacts relating to emitting hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses to less-than-significant levels. The Board finds that Mitigation Measure

3.10-2 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Several sensitive receptors and receptor locations are situated within the unincorporated County areas, and it is not known at the time of PEIR preparation whether projects facilitated by 2045 CAP measures and actions would be constructed near one or more of them. Projects facilitated by 2045 CAP measures and actions could create hazardous emissions. Impacts generated by the release of hazardous emissions near sensitive receptors would temporarily occur during construction phases of such projects. However, compliance with the Education Code and Public Resources Code would ensure that any prospective school site would be reviewed to determine that it is not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of a hazardous substance pipeline. This would ensure that prospective sites located within 0.25 mile of a school that handle or emit hazardous substances would not endanger sensitive receptors, including students. This portion of the impact would be less than significant.

In addition, projects facilitated by 2045 CAP measures and actions may include small-scale distributed solar facilities or utility-scale solar energy generation facilities. These projects may include the use of CdTe solar technology modules, which contain elemental cadmium. Although elemental cadmium is an acutely toxic substance, human exposure from CdTe PV modules would likely occur only if CdTe fine particles are inhaled. Fine particles would not be generated unless the modules were ground up or vaporized in a fire. This impact would be significant.

Compliance with applicable federal, state, and local laws and regulations would assure that impacts on sensitive receptors would be less than significant, except for impacts from solar PV installation projects that include the use of CdTe modules if the panels are ground to the level of dust particles or experience fire that reaches the CdTe melting point. Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste from broken CdTe modules is disposed of properly if not recycled. Implementing this measure would reduce the impact to a less-than-significant level.

Mitigation Measures:

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

Impact 3.10-6: Projects facilitated by the 2045 CAP would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Finding 1: Mitigation measures would reduce the Project's impacts relating to impairing implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan to less-than-significant levels. The Board finds that Mitigation Measure 3.15-1 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Implementing Mitigation Measure 3.15-1 would reduce the impact to a less-than-significant level because the traffic control plan would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities associated with projects facilitated by the 2045 CAP measures and actions.

Mitigation Measures:

Mitigation Measure 3.15-1: Traffic Control Plan (Recirculated Draft PEIR, p. 3.15-22 et seq.)

LA County shall require project applicants and construction contractors to coordinate with relevant LA County departments, transit providers, and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on transit service, roadway operations, emergency responders, pedestrian and bicycle facilities, and public safety in the surrounding area. (A traffic control plan may not be required for minor construction activities.) The project applicant shall be responsible for monitoring to ensure that the plan is effectively implemented by the construction contractor(s). Measures that may be employed throughout the course of the construction period include, but are not limited, to the following.

- Provide advance notice of lane and sidewalk closures, durations, and alternative routes to emergency service providers, motorists, bicyclists, and pedestrians.
- Provide clearly marked pedestrian detours if any sidewalk or pedestrian walkway closures are necessary.
- Provide clearly marked bicycle detours if heavily used bicycle routes must be closed, or if bicyclist safety may otherwise be comprised.
- Provide crossing-guards and/or flag persons as needed to avoid traffic conflicts and ensure pedestrian and bicyclist safety.
- Locate all stationary equipment as far as possible from areas used heavily by vehicles, bicyclists, and pedestrians.
- Use nonskid traffic plates over open trenches to reduce hazards.
- Implement traffic control measures to reduce vehicle travel delays through construction zones.
- Maintain acceptable response times and performance objectives for emergency response services.
- Avoid routing construction traffic through residential areas to the extent feasible.
- Prohibit mobilization and demobilization of heavy construction equipment during AM and PM peak traffic hours.
- Maintain access for driveways and private roads outside the immediate construction zone by using steel plates or temporary backfill, as necessary.
- Provide designated areas for construction worker parking wherever feasible to reduce use of parking on streets or in city center areas.

Impact 3.10-8: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment.

Finding 1: Mitigation measures would reduce the incremental contributions of projects facilitated by the 2045 CAP to a significant cumulative impact with regard to hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment to less-than-significant levels. The Board finds that Mitigation Measure 3.10-2 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: If, one or more projects facilitated by the Project, in combination with past, present, and reasonably foreseeable future projects, accidentally released hazardous materials into the environment, then a potentially significant impact on the environment and/or public could result. Numerous laws and regulations regulate the transportation, handling, storage, and disposal of hazardous materials. Nonetheless, given the broad use and storage of hazardous materials, including panels containing CdTe at solar facilities in the Antelope Valley and other unincorporated areas of Los Angeles County, and the potential for their accidental release, the cumulative impact would be significant. However, the Project's incremental contribution would be brought to less than cumulatively considerable (i.e., less than significant) with the implementation of Mitigation Measure 3.10-2. This mitigation measure would ensure that hazardous waste from broken CdTe modules, the primary hazard generated by solar facilities, and likely hazard derived from projects facilitated by the 2045 CAP would be disposed of properly if not recycled. Thus, cumulative impacts would be less than significant.

Mitigation Measures:

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

Impact 3.10-9: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would contribute to a significant cumulative adverse impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses.

Finding 1: Mitigation measures would reduce the Project's impacts relating to contributing to a significant cumulative adverse impact related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of sensitive land uses to less-than-significant levels. The Board finds that Mitigation Measure 3.10-2 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Cumulative projects that include solar facilities may include the use of CdTe solar technology modules, which can be toxic if released to the environment. Given the broad use and storage of hazardous materials, including CdTe cells at solar facilities in Antelope Valley and other unincorporated areas of Los Angeles County, and for the potential for their accidental release in the vicinity of sensitive land uses, when the Project's impacts are added, the cumulative impact would be significant. However, the Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) with implementation of Mitigation Measure 3.10-2. This mitigation measure would ensure that any hazardous waste from broken CdTe modules, toxic byproducts from solar facilities, from projects facilitated by the 2045 CAP would be disposed of properly if not recycled and would not result in an incremental contribution to a significant cumulative impact.

Mitigation Measures:

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

Impact 3.10-12: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would contribute to cumulative impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Finding 1: Mitigation measures would reduce the Project's impacts relating to contributing to cumulative impairment of the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan to less-than-significant levels. The Board finds that Mitigation Measure 3.15-1 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The Project's incremental contribution would be less than cumulatively considerable (i.e., less than significant) because the traffic control plan required by Mitigation Measure 3.15-1 would avoid or substantially reduce any Project-specific potential impairment of an emergency response or evacuation plan that may result during construction activities associated projects facilitated by the 2045 CAP measures and actions.

Mitigation Measures:

Mitigation Measure 3.15-1: Traffic Control Plan. See Impact 3.10-6 for a description of this mitigation measure.

vi) Hydrology and Water Quality

Impact 3.11-5: Projects facilitated by the 2045 CAP would not, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

Finding 1: Mitigation measures would reduce the Project's impacts in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation to less-than-significant levels. The Board finds that Mitigation Measure 3.10-2 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Projects facilitated by the 2045 CAP measures and actions would result in a less-than-significant impact regarding the potential to create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. However, Impact 3.10-2 concludes that a significant impact would result (pre-mitigation) regarding the potential for projects facilitated by the 2045 CAP measures and actions to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste from solar PV projects, under specified circumstances (identified in Section 3.10) into the environment. Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste is properly managed. As a result, the impact resulting from a risk of release of pollutants due to project inundation flood hazard, tsunami, or seiche zones would be less than significant with mitigation incorporated.

Mitigation Measures:

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

Impact 3.11-11: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would contribute to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation.

Finding 1: Mitigation measures would reduce the Project's impacts contributing to cumulative conditions of flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation to less-than-significant levels. The Board finds that Mitigation Measure 3.10-2 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The 2045 CAP would result in a less than cumulatively considerable contribution to cumulative impacts related to flood, tsunami, or seiche water quality hazards in the County, with the exception of risk of pollutant releases from solar PV project hazardous waste that is improperly stored or disposed of, which would be significant impact that is cumulatively considerable. Implementation of Mitigation Measure 3.10-2 would ensure that hazardous waste is properly managed. The impact would be less than cumulatively considerable and less than significant with mitigation incorporated.

Mitigation Measures:

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

vii) Transportation

Impact 3.15-1: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would conflict with an applicable program plan, ordinance, or policy addressing the circulation system.

Finding 1: Mitigation measures would reduce the Project's impacts relating to conflicting conflict with an applicable program plan, ordinance, or policy addressing the circulation system to less-than-significant levels. The Board finds that Mitigation Measure 3.15-1 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Projects facilitated by the 2045 CAP measures and goals could result in a significant impact with respect to consistency with applicable program plans, ordinances, or policies addressing the circulation system, including an emergency response or evacuation plan; thus, impacts would be significant. Mitigation Measure 3.15-1 would reduce this to a less-than-significant impact because the Traffic Control Plan would substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the 2045 CAP measures and actions.

Mitigation Measures:

Mitigation Measure 3.15-1: Traffic Control Plan. See Impact 3.10-6 for a description of this mitigation measure.

Impact 3.15-3: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would substantially increase hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Finding 1: Mitigation measures would reduce the Project's impacts relating to substantially increasing hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) to less-than-significant levels. The Board finds that Mitigation Measure 3.15-1 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: During the construction period, the presence of construction or the increased amount of heavy-duty construction vehicles on roadways could substantially increase hazards due to incompatible uses with normal vehicles on roadways. This could result in a significant impact. However, with the implementation of Mitigation Measure 3.15-1, this would be reduced to a less-than-significant impact because the Traffic Control Plan would avoid or substantially reduce any hazardous conditions for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated projects facilitated by the 2045 CAP measures and actions.

Mitigation Measures:

Mitigation Measure 3.15-1: Traffic Control Plan. See Impact 3.10-6 for a description of this mitigation measure.

Impact 3.15-4: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to conflict with an applicable program plan, ordinance or policy addressing the circulation system.

Finding 1: Mitigation measures would reduce the Project's impacts relating to causing a cumulatively considerable contribution to a significant cumulative impact relating to conflict with an applicable program plan, ordinance or policy addressing the circulation system to less-than-significant levels. The Board finds that Mitigation Measure 3.15-1 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: With the implementation of the Traffic Control Plan required by Mitigation Measure 3.15-1 the Project-specific, incremental contribution, combined with the cumulative projects' impacts to transportation resources over the span of the 2045 CAP, would not be cumulatively considerable because the mitigation measure would avoid or substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by the 2045 CAP measures and actions.

Mitigation Measures:

Mitigation Measure 3.15-1: Traffic Control Plan. See Impact 3.10-6 for a description of this mitigation measure.

Impact 3.15-6: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would not cause a cumulatively considerable contribution to a significant cumulative impact relating to a substantial increase in hazards due to a road design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Finding 1: Mitigation measures would reduce the Project's impacts relating to causing a cumulatively considerable contribution to a significant cumulative impact relating to a substantial increase in hazards due to a road design feature (e.g., sharp curves or dangerous intersections)

or incompatible uses (e.g., farm equipment) to less-than-significant levels. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The number of traffic-related deaths and severe injuries that occur on unincorporated area roadways indicates that a significant cumulative impact exists regarding roadway hazards. Past, present, and reasonably foreseeable future projects, including projects implemented in accordance with the Regional Transportation Plan, General Plan, Vision Zero, and municipal code requirements have introduced or could introduce new roadways, roadway improvements, or incompatible uses that could result in substantially increased hazards that could result in significant impacts when cumulatively considered. However, with the implementation of the Traffic Control Plan required by Mitigation Measure 3.15-1 the Project-specific, incremental contribution, combined with the cumulative projects' impacts to transportation over the span of the 2045 CAP, would not be cumulatively considerable because the mitigation measure would avoid or substantially reduce any safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians that may result during construction activities associated with projects facilitated by 2045 CAP measures and actions.

Mitigation Measures:

Mitigation Measure 3.15-1: Traffic Control Plan. See Impact 3.10-6 for a description of this mitigation measure.

viii) Tribal Cultural Resources

Impact 3.16-1: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would cause a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code section 5024.1(c).

Finding 1: Mitigation measures would reduce the Project's impacts relating to causing a substantial adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code section 5024.1(c) to less-than-significant levels. The Board finds that Mitigation Measures 3.16-1 and 3.6-2 through 3.6-6 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Implementation of Mitigation Measure 3.16-1 would reduce impacts of projects facilitated by the 2045 CAP on tribal cultural resources to a less-than-significant level because it would require the County to consult with California Native American tribes pursuant to AB 52 to identify tribal cultural resources that could be affected by a project facilitated by the 2045 CAP. Further, if a tribal cultural resource is identified as a result of consultation, the County will implement mitigation measures or consider alternatives capable of avoiding or minimizing significant impacts on the tribal cultural resource. Additionally, Mitigation Measures 3.6-2 through 3.6-6 (identified in Section 3.6, Cultural Resources) require archaeological monitoring and preparation of a plan for the treatment of archaeological resources, including those that may also qualify as tribal cultural resources, which would further reduce the impact's significance.

Mitigation Measures:

Mitigation Measure 3.16-1: AB 52 Consultation. (Recirculated Draft PEIR, p. 3.16-10 et seq.)

Consistent with AB 52, before the release of a negative declaration, mitigated negative declaration, or EIR, the County shall initiate consultation within 14 days of a decision to undertake a project facilitated by Draft 2045 CAP measures or actions. The County shall provide formal notification to the designated contact of, or a tribal representative of, each traditionally and culturally affiliated California Native American tribe that has requested notice. The County shall begin the consultation process within 30 days after receiving a California Native American tribe's request for consultation.

If tribal cultural resources are identified, the County shall implement mitigation measures that would avoid or substantially lessen significant impacts on such resources, including but not limited to the measures recommended in Public Resources Code section 21084.3, or shall implement alternatives that would avoid significant impacts on the tribal cultural resources. Such measures shall be implemented in consultation with the California Native American tribe.

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

Impact 3.16-2: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would cause a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code section 5024.1(c).

Finding 1: Mitigation measures would reduce the Project's impacts relating to causing a cumulatively considerable contribution to a significant cumulative impact caused by an adverse change in the significance of a tribal cultural resource or of a resource determined by the County, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c) to less-than-significant levels. The Board finds that Mitigation Measures 3.16-1 through 3.16-6 are feasible and hereby adopts them. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Mitigation Measure 3.16-1 and Mitigation Measures 3.6-2 through 3.6-6 would require the County to initiate consultation (within 14 days of a decision to undertake a project facilitated by 2045 CAP measures or actions) with California Native American tribes to avoid or lessen impacts on tribal cultural resources and would require archaeological monitoring and preparation of a plan for the treatment of such resources. As a result, with implementation of these measures, the Project-specific, incremental contribution, combined with the cumulative projects' impacts on tribal cultural resources over the span of the 2045 CAP, would not be cumulatively considerable, and therefore would be less than significant.

Mitigation Measures:

Mitigation Measure 3.16-1: See Impact 3.16-1 for a description of this mitigation measure.

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

ix) Wildfire

Impact 3.18-1: Projects facilitated by the 2045 CAP would not substantially impair an adopted emergency response plan or emergency evacuation plan.

Finding 1: Mitigation measures would reduce the Project's impacts relating to substantially impairing an adopted emergency response plan or emergency evacuation plan to less-than-significant levels. The Board finds that Mitigation Measure 3.15-1 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Implementation of the traffic control plan required by Mitigation Measure 3.15-1 would avoid or substantially reduce any potential impairment of an emergency response or evacuation plan that may result during construction activities associated with projects facilitated by the 2045 CAP measures and actions. Because any impacts related to the implementation of an emergency response or evacuation plan would be identified and addressed before a related impact would occur, implementing this mitigation measure would reduce the impacts to a less-than-significant level.

Mitigation Measures:

Mitigation Measure 3.15-1: Traffic Control Plan. See Impact 3.10-6 for a description of this mitigation measure.

Impact 3.18-3: Projects facilitated by the 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment.

Finding 1: Mitigation measures would reduce the Project's impacts relating to requiring the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts on the environment to less-than-significant levels. The Board finds that Mitigation Measure 3.18-3 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The implementation of Mitigation Measure 3.18-3 would ensure that the risk of fire from infrastructure associated with projects facilitated by the 2045 CAP measures and actions would be managed through collaboration with the Los Angeles County Fire Department (LACoFD), and that the applicant and its contractors would implement fire safety measures to prevent wildland fire and would be prepared to respond immediately if a fire should ignite. Therefore, this impact of projects facilitated by the 2045 CAP would be reduced to a less-than-significant level.

Mitigation Measures:

Mitigation Measure 3.18-3: Fire Safety During Construction and Operation (Recirculated Draft PEIR, p. 3.18-23 et seq.).

Future applicants and/or their contractors shall prepare and implement project-specific fire protection plans for projects located in the VHFHSZ to ensure that wildfire-related hazards are not exacerbated by projects facilitated by the 2045 CAP measures or goals. The applicant shall prepare and submit a fire protection plan to the County for review and approval at least 60 days before the start of construction activities. The fire protection plan shall include or require, but not limited to, the following measures along with Fire Code compliance, as applicable to address construction and operation:

- A training module within the pre-construction worker training (e.g., Worker Environmental Awareness training, safety training, fire equipment and procedures) on the specifics of the approved plan for all construction crew members before the start of construction.
- List project site roles and responsibilities and identify appropriate emergency notification procedures and site-specific emergency response and evacuation measures and routes that would be followed during emergency situations. All construction vehicles shall have fire suppression equipment.
- Instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site. Protocol for the project contractor and/or the applicant to perform visual inspections daily to ensure that all ignition risks are reduced or eliminated before leaving the worksite. Identify fire safety and prevention measures for project-specific infrastructure that can ignite fires, such as power lines, battery storage facilities, and composting facilities.

Impact 3.18-5: Projects facilitated by the 2045 CAP could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Finding 1: Mitigation measures would reduce the Project's impacts relating to exposing people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires to less-than-significant levels. The Board finds that Mitigation Measure 3.18-3 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Implementation of Mitigation Measure 3.18-3 would ensure that the risks of fire from projects facilitated by the 2045 CAP measures and actions would be managed through collaboration with LACoFD and the California Department of Forestry and Fire Protection (CAL FIRE), and that the applicant and its contractors would implement fire safety measures to

prevent wildland fire and would be prepared to respond immediately if a fire should ignite. Therefore, this impact would be reduced to a less-than-significant level.

Mitigation Measures:

[Mitigation Measure 3.18-3: Fire Safety During Construction and Operation](#). See Impact 3.18-3 for a description of this mitigation measure.

Impact 3.18-6: Projects facilitated by the 2045 CAP could result in significant cumulative impacts with regard to impairing an adopted emergency response plan or emergency evacuation plan.

Finding 1: Mitigation measures would reduce the Project's impacts relating to resulting in significant cumulative impacts with regard to impairing an adopted emergency response plan or emergency evacuation plan to less-than-significant levels. The Board finds that Mitigation Measure 3.15-1 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: The traffic control plan required by Mitigation Measure 3.15-1 would avoid or substantially reduce the contribution of projects facilitated by the 2045 CAP measures and actions to impairment of an emergency response or evacuation plan to less than cumulatively considerable. The cumulative impact on emergency access and emergency response would be reduced to a less than cumulatively considerable and therefore less-than-significant level.

Mitigation Measures:

[Mitigation Measure 3.15-1: Traffic Control Plan](#). See Impact 3.10-6 for a description of this mitigation measure.

Impact 3.18-8: Projects facilitated by the 2045 CAP could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment.

Finding 1: Mitigation measures would reduce the Project's impacts relating to requiring the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, composting facilities, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing cumulative impacts on the environment to less-than-significant levels. The Board finds that Mitigation Measure 3.18-3 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Implementation of Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by the 2045 CAP measures and actions would be managed through collaboration with LACoFD, fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. This measure would reduce the contribution of projects facilitated by 2045 CAP measures and actions to less than cumulatively considerable, and therefore to a less-than-significant level.

Mitigation Measures:

[Mitigation Measure 3.18-3: Fire Safety During Construction and Operation](#). See Impact 3.18-3 for a description of this mitigation measure.

Impact 3.18-10: Projects facilitated by the 2045 CAP could expose people or structures, either directly or indirectly, to a significant cumulative risk of loss, injury, or death involving wildland fires.

Finding 1: Mitigation measures would reduce the Project's impacts relating to exposing people or structures, either directly or indirectly, to a significant cumulative risk of loss, injury, or death involving wildland fires to less-than-significant levels. The Board finds that Mitigation Measure 3.18-3 is feasible and hereby adopts it. The Board hereby makes Finding 1 and determines this impact to be less than significant.

Facts in Support of Finding: Implementation of Mitigation Measure 3.18-3 would ensure that the incremental cumulative risk of wildfire from projects facilitated by the 2045 CAP measures and actions would be managed through collaboration with LACoFD, implementation of fire safety measures to prevent wildland fires, and preparations for immediate responses if a fire should ignite. This measure would reduce the Project's incremental contribution to the cumulative impact to less than cumulatively considerable, and this cumulative impact would be reduced to a less-than-significant level.

Mitigation Measures:

Mitigation Measure 3.18-3: Fire Safety During Construction and Operation. See Impact 3.18-3 for a description of this mitigation measure.

b. Findings Regarding Project Impacts Determined to Be Significant and Unavoidable

Where, as a result of the environmental analysis of the Project, the County has determined that either: (1) even with compliance with existing laws, codes and statutes, and/or the identification of feasible mitigation measures, significant impacts cannot be reduced to a level of less than significant; or (2) no feasible mitigation measures or alternatives are available to mitigate the significant impact, the County has found in accordance with Public Resources Code section 21081(a)(3) and CEQA Guidelines section 15091(a)(3) that "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR." This is referred to herein as "Finding 3."

i) Aesthetics

Impact 3.2-1: Projects facilitated by the 2045 CAP would have a substantial adverse effect on a scenic vista.

Finding 3: There are no feasible and reasonable mitigation measures that would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The 2045 CAP is a policy document that does not include specific projects that would have a direct, adverse effect on scenic vistas. Nonetheless, many of the projects facilitated by 2045 CAP measures and actions would involve retrofitting of existing buildings, development along existing transit areas, infill projects in urban locations that are already developed, electric vehicle charging stations, or distributed energy resources like rooftop solar PV panels on existing structures. These projects would have significant impacts on the surrounding area due to the inherent change to scenic vistas that would result.

The implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2 would reduce the severity of impact on scenic vistas; however, these measures would not on their own merits

ensure that the impact would be less than significant. Therefore, the County finds that even with implementation of these mitigation measures, potential impacts of projects facilitated by the 2045 CAP would remain significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design (Recirculated Draft PEIR, p. 3.2-11)

Projects facilitated by the 2045 CAP that would obstruct views from publicly-accessible vantage points as defined in this analysis (such as from a vista point or a regional riding, hiking, or multiuse trail) shall identify and protect public views and significant landscape features or landforms visible from such views, and shall implement project-specific mitigation as applicable. If it is determined that a project would obstruct scenic views, the County shall consider alternative designs that seek to avoid and/or minimize these impacts. Project-specific design measures may include reduction in height of improvements or width of improvements to reduce obstruction of views or other adverse visual effects, or relocation of improvements to reduce obstruction of views. The County shall consider taking the following (or equivalent) actions: i) Require that the scale and massing of new development provide appropriate transitions in structure height and bulk that are sensitive to the physical and visual character of the affected area; ii) ensure structure heights are stepped back to maintain appropriate transitions in scale and to protect scenic views; and iii) avoid siting electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines where they could obstruct views from public vantage points, such as a regional riding, hiking, or multiuse trail, along scenic roadways and routes, or scenic vista points.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures (Recirculated Draft PEIR, p. 3.2-11)

To partially screen views of projects facilitated by 2045 CAP measures and actions in locations where they would be visible from publicly accessible vantage points (e.g., scenic vistas, trails, scenic roadways and routes) and affect visual character or quality, if feasible and effective, the County shall (and other implementing state or local agencies can and should) require the construction of a berm, vegetative screening, or other form of visual barrier of sufficient height to provide a visual transition from ground level to surrounding hills or ridgelines. The color of proposed building facades and roofs shall be designed to visually blend in and minimize the potential for visual contrast between the project elements and their natural landscape surroundings. Bright or very light colors (including white) shall be avoided. Re-contouring and revegetation of temporarily disturbed, graded areas shall be completed to provide a natural appearing landform upon completion of construction.

Impact 3.2-2: Projects facilitated by the 2045 CAP would be visible from or obstruct views from a regional riding, hiking, or multiuse trail.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2 would reduce the severity of an impact on a public regional riding, hiking, or multiuse trail by adjusting the scaling and massing of structures, using step-backs from sensitive

adjoining uses, planning for project/facility siting, and installing visual screening; however, these measures would not on their own merits ensure that the impact of projects facilitated by the 2045 CAP would be less than significant. The Board therefore finds that, even with implementation of Mitigation Measures 3.2-1 and 3.2-2, alternative design or visual screening measures may not be feasible or effective for every Project facilitated by the 2045 CAP measures and actions. Therefore, the Board finds that this impact would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design. See Impact 3.2-1 for a discussion of this mitigation measure.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. See Impact 3.2-1 for a discussion of this mitigation measure.

Impact 3.2-3: Projects facilitated by the 2045 CAP would substantially damage scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2 would reduce the severity of an impact relating to substantial damage to scenic resources within a state scenic highway by adjusting the scaling and massing of structures, using step-backs from sensitive adjoining uses, planning for project/facility siting, and installing visual screening; however, these measures would not on their own merits ensure that the impact of projects facilitated by the 2045 CAP would be less than significant. For example, details about the siting and design of future utility-scale solar PV projects facilitated by the 2045 CAP, and the feasibility and effectiveness of mitigation measures, are unavailable. No additional feasible mitigation measures are available. The Board, therefore, finds that even with implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2, impacts may include substantial damage to scenic resources. Therefore, the Board finds Impact 3.2-3 would remain significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design. See Impact 3.2-1 for a discussion of this mitigation measure.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. See Impact 3.2-1 for a discussion of this mitigation measure.

Impact 3.2-4: Projects facilitated by the 2045 CAP would substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations of governing scenic quality.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2 would reduce the significance of project-caused changes to existing visual character or quality by adjusting the scaling and massing of structures, using step-backs from sensitive adjoining uses, planning for project/facility siting, and installing visual screening; however, these measures would not on their own merits ensure that the impact would be less than significant. For example, details about the siting of future utility-scale solar PV projects facilitated by the 2045 CAP, and the feasibility and effectiveness of mitigation measures, are unavailable. Therefore, the impacts of such projects relative to visual character or quality cannot be accurately assessed at this time, nor can project-specific mitigation be developed. No additional feasible mitigation measures are available. The Board, therefore, finds that even with implementation of these two mitigation measures, impacts may include substantial degradation of the existing visual character or quality of public views. Therefore, the Board finds Impact 3.2-4 would remain significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design. See Impact 3.2-1 for a discussion of this mitigation measure.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. See Impact 3.2-1 for a discussion of this mitigation measure.

Impact 3.2-6: Projects facilitated by the 2045 CAP would cause or contribute to a significant cumulative impact to scenic vistas.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: In locations where scenic vistas are of exceptionally high quality, such as in the Antelope Valley, the addition of incremental impacts from projects facilitated by 2045 CAP measures and actions could be more likely to cause or make a cumulatively considerable contribution to a significant cumulative impact on scenic vistas. By contrast, in locations where the quality of scenic vistas is of lesser quality and more mundane, there is a decreased likelihood that projects facilitated by the 2045 CAP measures and actions would cause or contribute to a significant cumulative impact on scenic vistas. The Board, therefore, finds that even with implementation of these two mitigation measures, significant cumulative impacts on scenic vistas would remain. Therefore, the Board finds projects facilitated by the 2045 CAP would cause a cumulatively considerable contribution to significant cumulative impacts to scenic vistas. The Board, therefore, finds that even with implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2, a significant unavoidable impact to scenic vistas would remain. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design. See Impact 3.2-1 for a discussion of this mitigation measure.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. See Impact 3.2-1 for a discussion of this mitigation measure.

Impact 3.2-7: Projects facilitated by the 2045 CAP would cause or contribute to significant cumulative impacts on views from a regional riding, hiking, or multiuse trail.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The Project's incremental contribution to cumulative impacts, in combination with the incremental impacts of other cumulative projects, would cause (or result in a cumulatively considerable contribution to) a significant cumulative impact on views from regional trails. The Project's contribution to this impact would be cumulatively considerable. The implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2 would reduce the severity of the Project's incremental contribution to cumulative impacts but would not ensure that the Project's contribution would be less than cumulatively considerable. The Board, therefore, finds that even with implementation of these two mitigation measures, a significant cumulative impact to views from a regional riding, hiking, or multiuse trail would remain. Therefore, the Board finds that this cumulative impact would remain significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design. See Impact 3.2-1 for a discussion of this mitigation measure.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. See Impact 3.2-1 for a discussion of this mitigation measure.

Impact 3.2-8: Projects facilitated by the 2045 CAP would cause or contribute to a significant cumulative impact due to substantial cumulative damage to scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: In combination with the incremental contributions of other closely related past, present, and reasonably foreseeable future projects that have been or may be approved within these state routes or within the areas to contribute to their eligibility for designation as a scenic highway, the incremental contribution of projects facilitated by the 2045 CAP could cause a significant cumulative impact to occur. The Project's contribution to this impact would be cumulatively considerable. The implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2 would reduce the severity of the Project's incremental contribution relating to substantial damage to scenic resources within a state scenic highway but would ensure that, in combination with the incremental impacts of other projects, the resulting cumulative impact would be less than significant. Accordingly, even with the implementation of these mitigation measures, the Project's contribution to significant cumulative impacts to scenic resources, including, but not limited to, trees, rocks, outcropping, and historic building within a state scenic highway would remain. Therefore, the Board finds this significant cumulative impact to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design. See Impact 3.2-1 for a discussion of this mitigation measure.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. See Impact 3.2-1 for a discussion of this mitigation measure.

Impact 3.2-9: Projects facilitated by the 2045 CAP would cause or contribute to significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The incremental impacts of the Project, in combination with the incremental contributions of other closely related past present and reasonably foreseeable future projects, could cause or contribute to a significant cumulative impact regarding the degradation of the existing visual character or quality of public views of the site and its surroundings as a result of the transformation of existing undeveloped landscape to a more industrial look and feel as would be associated with the development of a water recycling, waste management, or compost processing facility or with the development of utility-scale, ground-mounted renewable energy generation or infrastructure projects if proposed in more rural areas. The implementation of Mitigation Measure 3.2-1 and Mitigation Measure 3.2-2 would reduce the Project's incremental contribution to cumulative impacts but would not ensure that the contribution would not be cumulatively considerable. The Board, therefore, finds that even with the implementation of these mitigation measures, impacts may include significant cumulative degradation of the existing visual character or quality of public views of the site and its surroundings. Therefore, the Board finds this cumulative impact to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.2-1: Alternative Design. See Impact 3.2-1 for a discussion of this mitigation measure.

Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. See Impact 3.2-1 for a discussion of this mitigation measure.

ii) Agriculture and Forestry

Impact 3.3-1: Projects facilitated by the 2045 CAP would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Implementing Mitigation Measure 3.3-1 would lessen the impact of the conversion of mapped Farmland to nonagricultural uses by avoiding the development of

actively farmed lands for purposes of utility-scale solar and energy storage when there is an otherwise suitable site available. However, this measure would not ensure that such conversion could be avoided. The Board, therefore, finds that even with implementation of Mitigation Measure 3.3-1, impacts may include the conversion of Farmland, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Therefore, the Board finds that this significant cumulative impact would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development (Recirculated Draft PEIR, p. 3.3-14)

To reduce the impacts of converting Farmland in physical use for agriculture to nonagricultural uses when a utility-scale solar development is proposed on actively farmed land, the County shall require renewable energy project applicants to demonstrate their consideration of alternate sites consisting of formerly developed and/or contaminated lands such as landfills and mine sites located within one mile of the proposed project site when such development is consistent with General Plan and zoning requirements.

Impact 3.3-2: Projects facilitated by the 2045 CAP would conflict with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Implementing Mitigation Measure 3.3-1 would lessen impacts caused by a conflict with a designated Agricultural Resource Area but would not ensure that no such conflict would occur. The Board, therefore, finds that even with implementation of Mitigation Measure 3.3-1, impacts may include conflicts with the existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract. Therefore, the Board finds Impact 3.3-2 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development. See Impact 3.3-1 for a description of this mitigation measure.

Impact 3.3-5: Projects facilitated by the 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Implementing Mitigation Measure 3.3-1 would lessen impacts related to the conversion of Farmland to utility-scale solar development (a nonagricultural use) but would not ensure that land in agricultural use would not be converted. The Board, therefore, finds that even with the implementation of Mitigation Measure 3.3-1, impacts may involve other changes in

the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. Therefore, the Board finds Impact 3.3-5 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

[Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development.](#) See Impact 3.3-1 for a description of this mitigation measure.

Impact 3.3-7: Projects facilitated by the 2045 CAP would result in a significant cumulative impact related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Implementing Mitigation Measure 3.3-1 would lessen the Project's contribution to the significant cumulative impact. However, implementation of this measure would not ensure that the conversion of mapped Farmland could be avoided and would have no impact on the conversion of mapped Farmland for residential or other uses of that land consistent with General Plan and zoning provisions. The Board, therefore, finds that even with implementation of Mitigation Measure 3.3-1, impacts may include a significant cumulative conversion of Farmland, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use. Therefore, the Board finds that Impact 3.3-7 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

[Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development.](#) See Impact 3.3-1 for a description of this mitigation measure.

Impact 3.3-8: Projects facilitated by the 2045 CAP would result in a cumulative significant impact related to conflicts with existing zoning for agricultural use, or with a designated Agricultural Resource Area.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Implementing Mitigation Measure 3.3-1 would lessen the Project's contribution to the significant cumulative impact but would not ensure that a conflict with a designated Agricultural Resource Area would be avoided. The Board, therefore, finds that even with implementation of Mitigation Measure 3.3-1, the Project's incremental contribution to the cumulative impact to existing zoning for agricultural use, or with a designated Agricultural Resource Area would be cumulatively considerable. Therefore, the Board finds that Impact 3.3-8 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development. See Impact 3.3-1 for a description of this mitigation measure.

Impact 3.3-11: Projects facilitated by the 2045 CAP would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Implementing Mitigation Measure 3.3-1 would lessen the Project's cumulative contribution to conversion-related impacts but would not ensure that other changes resulting in conversion would not occur. The Board, therefore, finds that even with the implementation of Mitigation Measure 3.3-1, the Project's incremental contribution to cumulative impacts involving other changes in the existing environment that could result in conversion of Farmland would be cumulatively considerable. Therefore, the Board finds that Impact 3.3-5 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development. See Impact 3.3-1 for a description of this mitigation measure.

iii) Air Quality

Impact 3.4-1: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would conflict with or obstruct implementation of the applicable air quality plan.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Future projects in the unincorporated County that would implement 2045 CAP measures and actions would result in a significant and unavoidable impact related to conflict with or obstruction of the implementation of the applicable air quality plan. Implementation of Mitigation Measures 3.4-1 through 3.4-3 would reduce the severity of construction and operational emissions. However, even with the implementation of the measures, these impacts are not accurately quantifiable at this time and may not be reduced to below the thresholds. As a result, the impact for construction and operation of projects facilitated by 2045 CAP would remain significant and unavoidable. No feasible mitigation measures are available that would reduce impacts below South Coast Air Quality Management District (SCAQMD) or Antelope Valley Air Quality Management District (AVAQMD) thresholds on a programmatic level, and feasible mitigation may not be available for individual projects facilitated by the 2045 CAP measures and actions. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. Because the exact specifications for projects that may be facilitated by the 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045. The Board, therefore, finds that

even with implementation of the identified mitigation measures, impacts due to conflict with or obstruction of the implementation of the applicable air quality plan would remain. Therefore, the Board finds No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions. See Impact 3.4-3b for a discussion of this mitigation measure.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. See Impact 3.4-3b for a discussion of this mitigation measure.

Mitigation Measure 3.4-3: Architectural Coating VOC Emissions (Recirculated Draft PEIR, p. 3.4-54)

If, during subsequent project-level environmental review, it is determined that VOC emissions impacts may be significant, the lead agency shall require Super-Compliant VOC-content architectural coatings (0 grams per liter to less than 10 grams per liter VOC) to be used during construction and operational application of paints and other architectural coatings to reduce ozone precursors. If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during days when the USEPA, CARB, or SCAQMD has forecasted the Air Quality Index for ozone to be greater than 100 for the project location.

Impact 3.4-2: The Project, as a result of projects facilitated by 2045 CAP measures and actions, could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Future projects in the unincorporated areas of the County facilitated by 2045 CAP measures and actions would result in a significant and unavoidable impact related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment during construction and operations due to the potential for individual future projects facilitated by 2045 CAP measures and actions to exceed the significance thresholds. Implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, and 3.4-5 would help to reduce the severity of the impacts. However, even with implementation of the measures, impacts may not be reduced to below the thresholds (and impacts would remain significant and unavoidable) because no feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a programmatic level and because feasible mitigation may not be available for individual projects facilitated by the 2045 CAP. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available. Because the exact specifications for projects that may be facilitated by the 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045. The magnitude of long-term impacts may increase over time to the extent that more projects would be facilitated by 2045 CAP measures and actions to meet the 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. The Board, therefore, finds that even with implementation of the identified mitigation measures, a cumulatively considerable net increase of a criteria pollutant for which the

Project region is nonattainment would remain. Therefore, the Board finds Impact 3.4-2 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4: Enhanced Energy Conservation (Recirculated Draft PEIR, p. 3.4-61)

If, during subsequent project-level environmental review, it is determined that operational emissions impacts are significant, the lead agency shall require the project to incorporate enhanced energy conservation measures beyond those required by federal or state law, County ordinance, and the 2045 CAP measures and actions to reduce energy-related emissions. Enhanced energy conservation measures shall include one or more of the following as applicable:

- Install Energy Star rated heating, cooling, lighting, and appliances.
- Use of heating, ventilation, and air conditioning equipment with a Seasonal Energy Efficiency Ratio of 12 or higher.
- Installation of water heaters with an energy factor of 0.92 or higher.
- Install solar water heaters or tankless water heaters.
- Use passive solar cooling/heating.
- Reduce building natural gas infrastructure, use renewable natural gas in place of fossil fuel-derived natural gas, or eliminate building natural gas infrastructure and fully electrify buildings.

Mitigation Measure 3.4-5: Low-VOC/Green Cleaning Product Educational Program (Recirculated Draft PEIR, p. 3.4-61)

If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project applicant or developer to provide tenants and residents with information about low-VOC/green cleaning products and paints, including materials educating how to identify low-VOC cleaners and products.

Impact 3.4-3a: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and Toxic Air Contaminants (TAC) emissions.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The 2045 CAP would result in a significant and unavoidable impact related to exposure of sensitive receptors to substantial pollutant concentrations. The implementation of Mitigation Measure 3.4-6 and Mitigation Measure 3.4-7 would help to reduce the severity of the impacts related to localized emissions and TAC emissions. However, impacts from construction- and operational-related localized emissions and TAC emissions may not be reduced to below the thresholds and, under such conditions, impacts would remain significant and unavoidable. No feasible mitigation measures are available that would reduce impacts related to construction-related localized emissions and TAC emissions to below SCAQMD's or AVAQMD's thresholds on a Program level and feasible mitigation may not be available for individual projects facilitated by 2045 CAP measures and actions. Impacts would be significant and unavoidable. No additional feasible mitigation measures are available. Because the exact specifications for projects that may be facilitated by the 2045 CAP are unknown, this determination applies to horizon years 2030, 2035, and 2045. The magnitude of long-term impacts would increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would expose sensitive receptors to substantial pollutant concentrations for localized air pollutants and TAC emissions. Therefore, the Board finds Impact 3.4-3a to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4: Enhanced Energy Conservation. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.4-5: Low-VOC/Green Cleaning Product Educational Program. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.4-6: Stationary Sources (Recirculated Draft PEIR, p. 3.4-68)

Applicants for new or modified stationary sources facilitated by the 2045 CAP measures and actions that: (1) have the potential to generate 40 or more diesel trucks per day and (2) are located within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the County Department of Regional Planning prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the applicable air quality management district. If the HRA shows that the incremental cancer risk

exceeds ten in one million (10E-06), particulate matter concentrations would exceed 2.5 µg/m³, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project.

Mitigation Measure 3.4-7: Health Risk Assessment (Recirculated Draft PEIR, p. 3.4-68 et seq.)

Applicants shall submit a health risk assessment (HRA) to the County prior to future discretionary project approval for sensitive land uses facilitated by the 2045 CAP measures and actions within the following distances as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, from these facilities or similar types of facilities that produce TAC emissions:

- Industrial facilities within 1,000 feet
- Distribution centers (40 or more trucks per day) within 1,000 feet
- Major transportation projects (50,000 or more vehicles per day) within 1,000 feet
- Gasoline dispensing facilities within 300 feet

Applicants proposing projects facilitated by the 2045 CAP measures and actions which produce TAC emissions may be required to submit an HRA based on local rules and regulations, and/or at the discretion of the lead agency.

The HRA shall be prepared in accordance with policies and procedures of the applicable Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:

- Air intakes located away from high-volume roadways and/or truck loading zones, unless it can be demonstrated to the County Department of Regional Planning that there are operational limitations.
- Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters.

Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the County and shall be verified by the County Department of Regional Planning.

Impact 3.4-5: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would make a cumulatively considerable contribution to a significant cumulative impact due to a conflict with or obstruction of implementation of the applicable air quality plan.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Future projects in the unincorporated County that would be facilitated by the 2045 CAP measures and actions would result in a significant and unavoidable cumulative impact related to construction emissions and conflict with or obstruction of the implementation of the applicable air quality plan. The implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-3 would reduce the severity of construction emissions. However, even with the implementation of the measures, these cumulative impacts are not accurately quantifiable at this time and may not be reduced to below the thresholds. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a program level, and feasible mitigation may not be available for individual projects facilitated by the 2045 CAP measures and actions for horizon years 2030, 2035, and 2045. Impacts would be cumulatively considerable, and significant and unavoidable. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would cause a cumulatively considerable contribution to a significant cumulative impact due to a conflict with or obstruction of implementation of the applicable air quality plan. Therefore, the Board finds Impact 3.4-5 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Impact 3.4-6: The Draft 2045 CAP would make a cumulatively considerable contribution to a significant cumulative impact to air quality associated with criteria pollutants.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Future projects in the unincorporated areas of the County facilitated by 2045 CAP measures and actions would result in a significant and unavoidable impact related to a cumulatively considerable net increase of a criteria pollutant for which the region is nonattainment during construction and operations. The implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, and 3.4-5 would help to reduce the severity of the impacts. However, even with implementation of these measures, impacts may not be reduced to below the thresholds (and impacts would remain significant and unavoidable) because no feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a program level and because feasible mitigation may not be available for individual

projects facilitated by the 2045 CAP for horizon years 2030, 2035, and 2045. Impacts would be significant and unavoidable. The magnitude of long-term impacts may increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would cause a cumulatively considerable contribution to a significant cumulative impact to air quality associated with criteria pollutants. Therefore, the Board finds Impact 3.4-6 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4: Enhanced Energy Conservation. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.4-5: Low-VOC/Green Cleaning Product Educational Program. See Impact 3.4-2 for a description of this mitigation measure.

Impact 3.4-7: The Project, as a result of projects facilitated by the 2045 CAP, could contribute to a significant cumulative impact to air quality associated with localized air pollutant and TAC emissions.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Future projects facilitated by 2045 CAP measures and actions may result in localized air pollutant and TAC emissions that could exceed the SCAQMD and AVAQMD significance thresholds for each of the horizon years. However, even with implementation of Mitigation Measures 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, 3.4-6, 3.4-7, and 3.4-8, the impacts related to fugitive dust, localized TAC emissions, and associated health risk impacts would be cumulatively considerable and thus significant and unavoidable. No feasible mitigation measures are available that would reduce impacts below SCAQMD's or AVAQMD's thresholds on a program level, and feasible mitigation may not be available for future projects facilitated by the 2045 CAP for horizon years 2030, 2035, and 2045. Impacts would be significant and unavoidable. The magnitude of long-term impacts may increase over time to the extent that more projects would be facilitated by CAP measures and actions to meet the 2045 CAP's increasingly aggressive 2030, 2035, and 2045 GHG reduction targets. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would contribute to a significant cumulative impact to air quality associated with localized air pollutant and TAC emissions. Therefore, the Board finds Impact 3.4-7 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1: Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4: Enhanced Energy Conservation. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.4-5: Low-VOC/Green Cleaning Product Educational Program. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.4-6: Stationary Sources. See Impact 3.4-3a for a description of this mitigation measure.

Mitigation Measure 3.4-7: Health Risk Assessment. See Impact 3.4-3a for a description of this mitigation measure.

Mitigation Measure 3.4-8: Valley Fever. See Impact 3.4-3b for a description of this mitigation measure.

iv) Biological Resources

Impact 3.5-2: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would have a substantial adverse indirect impact (i.e., through habitat modifications) on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Although direct impacts on special-status species would be mitigated, significant indirect impacts on special-status species would occur due to the loss of common, non-sensitive habitat. Special-status species are dependent on both sensitive and common habitats and with the development facilitated by 2045 CAP measures and actions, habitat and resources to support special-status species could be reduced. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would have a substantial adverse indirect impact on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Therefore, the Board finds Impact 3.5-2 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.5-1 (Recirculated Draft PEIR, p. 3.5-19)

The County shall require biological resources to be analyzed on a project-specific level by a qualified biological consultant. Prior to or during the preparation of project-level environmental documents, and prior to the start of construction activities, a biological resources assessment shall be conducted to characterize the project site. Suitable buffer areas surrounding the project site shall be included where native habitat is contiguous with off-site habitat areas. The assessment and analysis shall emphasize identifying endangered, threatened, rare, and other special-status species; regionally and locally unique species; and sensitive natural communities, jurisdictional waters, and oak woodlands. Focused surveys shall be conducted as necessary to determine the presence of special-status species (e.g., focused sensitive plant or wildlife surveys). Focused surveys shall be conducted according to established CDFW or USFWS protocols, if available for the object species. Natural communities shall be mapped and identified according to floristic alliance- and/or association-based mapping protocols consistent with CDFW natural communities. A jurisdictional delineation may be required if there are signs of potentially regulated wetlands and non-wetland waters. A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze direct and indirect impacts on biological resources, and propose mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as those species with potential to occur on-site).

Mitigation Measure 3.5-2 (Recirculated Draft PEIR, p. 3.5-19et seq.)

If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as described in Mitigation Measure 3.5-1) shall include a mitigation measure requiring pre-construction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. The mitigation measures shall also include consultation with and obtaining permits from USFWS or CDFW prior to construction, if required by FESA or CESA for listed endangered and threatened species. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite habitat areas. Relocation of such species into areas of appropriate restored habitat would have the best chance of replacing/incrementing populations that are lost due to habitat converted to development. Relocation to restored habitat areas shall be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume.

Impact 3.5-3: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would have a substantial adverse impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Although direct impacts on sensitive natural communities would be mitigated, no mitigation is provided for indirect impacts on sensitive natural communities through the loss of common, non-sensitive habitat. Sensitive natural communities are dependent on both sensitive and common habitats, and with the potential increase in development to implement the 2045 CAP, measures and actions could reduce common habitat and resources to support sensitive natural communities. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would have a substantial adverse impact on sensitive natural communities identified in local or regional plans, policies, regulations or by CDFW or USFWS. Therefore, the Board finds Impact 3.5-3 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.5-1. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-5 (Recirculated Draft PEIR, p. 3.5-26)

Proponents of projects resulting in the loss of oak woodlands shall mitigate with in-kind replacement habitat at a minimum of 1:1 mitigation ratio documented through a County-approved habitat mitigation plan. The plan shall include the number of replacement trees (or acreage and average density of woodland), location of replacement woodland, understory habitat components, sequencing for any phased tree removal, and performance standards for mitigation. The plan shall include monitoring for a minimum of five years, with annual reports submitted to the County.

For oak woodlands impacts, project mitigation shall be consistent with recommendations in the County's Oak Woodland Conservation Management Plan and its 2014 Guide. If a project cannot be redesigned to avoid impacts to oak woodlands, an appropriate mitigation strategy would be developed by selecting from the Guide's list of recommended mitigation measures prioritizing the acquisition of oak woodland habitat comparable to the habitat that was affected over the restoration of degraded off-site and in-lieu fees. A Mitigation Monitoring Plan consistent with the Guide's recommendations would be prepared and implemented.

Impact 3.5-5: The Project, as a result of projects facilitated by the 2045 CAP measures and actions, would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Projects facilitated by 2045 CAP measures and actions could adversely affect wildlife corridors, habitat linkages, and native wildlife nursery sites when expanding bicycle and pedestrian networks within recreational areas, procuring zero-carbon electricity, electrifying all new development, increasing renewable energy production on new development, and expanding energy resilience. These measures may facilitate new development such as large utility-scale energy projects (e.g., solar, battery storage, substation, transmission infrastructure) in the Antelope Valley or other rural areas and would affect wildlife corridors, habitat linkages, and native wildlife nursery sites if they narrow existing corridors or remove them completely. Impacts associated with narrowing or removing existing wildlife corridors, habitat

linkages, and/or native wildlife nursery sites would remain. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, the Board finds Impact 3.5-5 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

[Mitigation Measure 3.5-1](#). See Impact 3.5-2 for a description of this mitigation measure.

[Mitigation Measure 3.5-4 \(Recirculated Draft PEIR, p. 3.5-25\)](#)

Proponents for individual projects facilitated by the 2045 CAP provisions shall analyze impacts on wildlife movement and corridors that may introduce new or additional barriers to wildlife dispersal or constrain existing wildlife corridors to future movement, or indirect impacts constraining future wildlife movement. Where projects may interfere with wildlife movement, alternative designs shall be included in the analysis to reduce wildlife movement impacts. Corridors, linkages, and pinch points shall not be entirely closed by any development, and partial mitigation shall be mandatory for project-specific impacts on wildlife corridors and wildlife nursery sites. This shall include provision of a minimum of half the corridor width. (The width shall be at least what is needed to remain connective for the top predators using the corridor.) Mitigation can include preservation by deed in perpetuity of other parts of the wildlife corridor connecting through the development area; it can include native landscaping to provide cover on the corridor. For nursery site impacts, mitigation shall include preservation by deed in perpetuity for another comparable nursery site of the same species.

Impact 3.5-7: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: For indirect impacts resulting in part from the loss of common habitats and diminished resource availability, the implementation of Mitigation Measures 3.5-1 and 3.5-2 would not be sufficient to reduce the level of the Project-specific impact (as a result of projects facilitated by the 2045 CAP) to a less-than-significant level. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would result in a cumulatively considerable contribution to a significant cumulative impact through habitat modifications on one or more species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Therefore, the Board finds Impact 3.5-7 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

[Mitigation Measure 3.5-1](#). See Impact 3.5-2 for a description of this mitigation measure.

[Mitigation Measure 3.5-2](#). See Impact 3.5-2 for a description of this mitigation measure.

[Impact 3.5-8](#): The Project, as a result of projects facilitated by 2045 CAP measures and actions, would result in a cumulatively considerable contribution to a significant cumulative impact on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS.

[Finding 3](#): There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

[Facts in Support of Finding](#): The 2045 CAP would contribute a significant and unavoidable incremental contribution to this significant cumulative impact. No further mitigation is available to reduce the significance of this incremental contribution because riparian habitat and sensitive natural communities are limited in distribution; therefore, the ability to replace or mitigate the loss of these areas are equally limited in opportunity and new habitats, especially riparian, cannot readily be created. Accordingly, the Project-specific, incremental contribution, combined with the cumulative projects' impacts on sensitive natural communities over the span of the 2045 CAP, would remain. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project would result in a cumulatively considerable contribution to a significant cumulative impact on sensitive natural communities identified in local or regional plans, policies, regulations or by CDFW or USFWS. Therefore, the Board finds Impact 3.5-8 to be significant and unavoidable. No additional feasible mitigation is available.

[Mitigation Measures](#):

[Mitigation Measure 3.5-1](#). See Impact 3.5-2 for a description of this mitigation measure.

[Mitigation Measure 3.5-5](#). See Impact 3.5-3 for a description of this mitigation measure.

[Impact 3.5-10](#): The Project, as a result of projects facilitated by 2045 CAP measures and actions, would contribute to a significant cumulative impact relating to substantial interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites.

[Finding 3](#): There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

[Facts in Support of Finding](#): Projects facilitated by the 2045 CAP would contribute a significant unavoidable incremental contribution to this significant cumulative impact. Even with the implementation of Mitigation Measures 3.5-1 and 3.5-4, the Project-specific, incremental contribution, combined with the cumulative projects' impacts on special-status species over the span of the 2045 CAP, would be cumulatively considerable. Additional mitigation opportunities for wildlife movement are limited or unavailable. A significant cumulative impact from interference with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impediment of the use of native wildlife nursery sites would result. The Board, therefore, finds that even with implementation of the identified mitigation measures, Impact 3.5-10 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

[Mitigation Measure 3.5-1](#). See Impact 3.5-2 for a description of this mitigation measure.

[Mitigation Measure 3.5-4](#). See Impact 3.5-5 for a description of this mitigation measure.

Impact 3.5-11: The Project, as a result of projects facilitated by 2045 CAP measures and actions, would contribute to the cumulative conversion of oak woodlands or other unique native woodlands.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Projects facilitated by 2045 CAP measures and actions would result in a cumulatively considerable contribution to significant cumulative impacts when combined with the incremental impacts of other projects over the span of the 2045 CAP and with the impacts of other natural factors beyond the County's control that contribute to the conversion of oak woodlands and other unique woodlands (e.g., wildfires, climate change, introduced plant diseases, insect pests). The implementation of Mitigation Measures 3.5-1 and 3.5-5 would not reduce the significance of the Project's contribution to a less than cumulatively considerable level. The Board, therefore, finds that even with implementation of the identified mitigation measures, a significant cumulative impact related to a cumulative conversion of oak woodlands or other unique native woodlands would remain. Therefore, the Board finds Impact 3.5-11 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

[Mitigation Measure 3.5-1](#). See Impact 3.5-2 for a description of this mitigation measure.

[Mitigation Measure 3.5-5](#). See Impact 3.5-3 for a description of this mitigation measure.

v) Noise and Vibration

Impact 3.13-1: Projects facilitated by the 2045 CAP could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Mitigation Measure 3.13-1 would reduce impacts associated with construction activities. However, because of the potential for construction activities to occur near sensitive uses, and because of the potential intensity of construction activities, it may not be feasible to reduce the impact to a less-than-significant level. Accordingly, the impact would remain significant and unavoidable. Mitigation Measure 3.13-2 would reduce impacts associated with stationary-source noise, but because exterior noise levels may still exceed the County's noise land use compatibility criteria despite exterior noise attenuation (e.g., noise controls, sound walls, and/or berms), the impact would remain significant and unavoidable. No additional feasible mitigation measures have been identified to further reduce Project-specific incremental contributions to significant noise impacts. Residential land uses comprise the majority of existing sensitive uses in Los Angeles County that would be affected by the increase in noise generated

by projects facilitated by the 2045 CAP. Construction of sound barriers would be inappropriate to reduce traffic noise impacts for residential land uses that face the roadway because such a measure would create aesthetic and access concerns. Furthermore, for individual development projects, the cost to mitigate off-site noise impacts on existing uses (for example, by implementing noise controls such as sound walls, berms, or the replacement of existing single-paned windows) often is out of proportion with the level of impact. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, the Board finds Impact 3.13-1 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.13-1: Construction Noise (Recirculated Draft PEIR, p. 3.13-20)

Construction activities associated with new projects facilitated by the 2045 CAP that occur within 500 feet of noise-sensitive receptors (i.e., residences, parks, schools, historic sites, cemeteries, and recreation areas) shall be evaluated by the project applicant for noise impacts that would result in a 5 dBA increase over existing ambient noise levels at any sensitive receptor. Mitigation measures such as installing temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures; equipping construction equipment with more effective mufflers, sound-insulating hoods or enclosures, vibration dampers, and other Best Available Control Technology (BACT); and reducing non-essential idling of construction equipment to no more than five minutes shall be incorporated into construction activities to reduce construction-related noise.

Mitigation Measure 3.13-2: Stationary-Noise Source (Recirculated Draft PEIR, p. 3.13-20)

For any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) exposed to project stationary-source noise levels in excess of applicable standards in the Los Angeles County Noise Ordinance, the project applicant shall submit an acoustic analysis prior to project approval. The acoustic analysis shall identify site design features (e.g., setbacks, berms, parapets, equipment enclosures, equipment mufflers, sound walls, or other similar noise control device or noise barrier) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the County's Noise Compatibility Criteria, the California Building Code, and the California Noise Insulation Standards (Title 24 of the California Code of Regulations).

Impact 3.13-2: Projects facilitated by the 2045 CAP could generate excessive groundborne vibration or groundborne noise levels.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: The implementation of Mitigation Measure 3.13-3 would reduce vibration impacts associated with construction activities. However, because of the potential for construction activities to occur near sensitive uses, and because of the potential intensity of construction activities, it may not be feasible to reduce the impact to a less-than-significant level.

The Board, therefore, finds that even with implementation of Mitigation Measure 3.13-3, the Project could generate excessive groundborne vibration. Therefore, the Board finds Impact 3.13-2 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.13-3: Construction Vibration (Recirculated Draft PEIR, p. 3.13-23)

Individual projects that use vibration-intensive construction equipment, such as pile drivers, jackhammers, and vibratory rollers near vibration-sensitive receptors shall be evaluated by the applicant for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses (i.e., exceed the County's standard of 0.01 inches per second (in/sec) vibration velocity [within the range of 1 to 100 Hz frequency]), additional requirements shall be implemented during construction, such as the use of less-vibration-intensive equipment or vibration-reduction construction techniques or strategies (e.g., drilled piles to eliminate the use of a vibration-intensive pile driver, increased setback distances).

Impact 3.13-3: Projects facilitated by the 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact related to the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: While the implementation of Mitigation Measure 3.13-1 and Mitigation Measure 3.13-2 would reduce the significance of the Project-specific incremental contribution, it may not be feasible to reduce the Project-specific contribution to the significant cumulative impact to a less than cumulatively considerable / less-than-significant level. Thus, post-mitigation cumulative noise impacts would remain significant and unavoidable. No additional feasible mitigation measures have been identified to further reduce Project-specific incremental contributions to significant cumulative noise impacts. For residential land uses, which comprise the majority of existing sensitive uses in Los Angeles County that would be affected by the increase in noise generated by projects facilitated by the 2045 CAP, the construction of sound barriers would be inappropriate to reduce traffic noise impacts because such barriers would create aesthetic and access concerns. For other individual development project types, the cost to mitigate off-site noise impacts on existing uses often is out of proportion with the level of impact. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project could make a cumulatively considerable contribution to a significant cumulative impact related to the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, the Board finds Impact 3.13-3 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.13-1. Construction Noise. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-2. Stationary-Noise Source. See Impact 3.13-1 for a description of this mitigation measure.

Impact 3.13-4: Projects facilitated by the 2045 CAP could make a cumulatively considerable contribution to a significant cumulative impact relating to the generation of excessive groundborne vibration or groundborne noise levels from construction activities.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Although the implementation of Mitigation Measure 3.13-3 and Mitigation Measure 3.13-4 would reduce the Project-specific incremental contribution to significant cumulative vibration impacts, it may not be feasible to reduce the cumulative impact to a less-than-significant level. The Board, therefore, finds that even with implementation of the identified mitigation measures, a cumulatively considerable contribution to a significant cumulative impact relating to the generation of excessive groundborne vibration or groundborne noise levels from construction activities would remain. Therefore, the Board finds Impact 3.13-4, as a result of projects facilitated by the Draft 2045 CAP, to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.13-3. Measure 3.13-3. See Impact 3.13-2 for a description of this mitigation measure.

Mitigation Measure 3.13-4: New Development Near Railroad Tracks (Recirculated Draft PEIR, p. 3.13-25)

New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 in/sec RMS for residential uses.

vi) Utilities and Service Systems

Impact 3.17-1: Projects facilitated by the 2045 CAP would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Construction of some utility projects, in particular utility-scale energy projects, could result in significant impacts on environmental resources including air quality, biological resources, cultural resources, water quality, transportation, and noise. Mitigation measures outlined in the PEIR would reduce these impacts. (See Section 3.4, Air Quality; Section 3.5, Biological Resources; Section 3.6, Cultural Resources; Section 3.10, Hazards and

Hazardous Materials; Section 3.13, Noise; and Section 3.15, Transportation.) Nonetheless, as described in these sections of the EIR, construction of new water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities would result in significant and unavoidable impacts. The Board, therefore, finds that even with implementation of the identified mitigation measures, the Project could cause significant environmental effects due to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities. Therefore, the Board finds Impact 3.17-1 to be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1. Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2. Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3. Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4. Enhanced Energy Conservation. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.5-1. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-2. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-3. See Impact 3.5-4 for a description of this mitigation measure.

Mitigation Measure 3.5-4. See Impact 3.5-9 for a description of this mitigation measure.

Mitigation Measure 3.5-5. See Impact 3.5-6 for a description of this mitigation measure.

Mitigation Measure 3.6-1: Historic Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-7. Paleontological Resources Assessment and Monitoring. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-8. Paleontological Resources Sensitivity Training. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-9. Paleontological Discoveries. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-10. Human Remains Discoveries. See Impact 3.6-4 for a description of this mitigation measure.

Mitigation Measure 3.13-1. Construction Noise. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-2. Stationary-Noise Source. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-3. Measure 3.13-3. See Impact 3.13-2 for a description of this mitigation measure.

Mitigation Measure 3.13-4. New Development Near Railroad Tracks. See Impact 3.13-4 for a description of this mitigation measure.

Mitigation Measure 3.15-1. Traffic Control Plan. See Impact 3.10.6 for a description of this mitigation measure.

Impact 3.17-3: Projects facilitated by the 2045 CAP would result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Measures and actions facilitated by the 2045 CAP would lead to increased use of recycled and gray water systems, requiring the development of new water recycling and direct potable reuse facilities. The development of these new facilities would allow for wastewater treatment providers to adequately serve their existing and projected commitments; however, this would lead to significant and unavoidable impacts. Mitigation measures outlined in the PEIR that would reduce these impacts have been developed. (See Section 3.4, Air Quality; Section 3.5, Biological Resources; Section 3.6, Cultural Resources; Section 3.10, Hazards and Hazardous Materials; Section 3.13, Noise; and Section 3.15, Transportation.) Nonetheless, as described in these sections of the EIR, construction of new water recycling and direct potable reuse facilities would result in a determination by the wastewater treatment provider that serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. The Board, therefore, finds that even with implementation of the identified mitigation measures, Impact 3.17-3 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1. Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2. Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3. Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4. Enhanced Energy Conservation. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.5-1. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-2. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-3. See Impact 3.5-4 for a description of this mitigation measure.

Mitigation Measure 3.5-4. See Impact 3.5-9 for a description of this mitigation measure.

Mitigation Measure 3.5-5. See Impact 3.5-6 for a description of this mitigation measure.

Mitigation Measure 3.6-1: Historic Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-7. Paleontological Resources Assessment and Monitoring. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-8. Paleontological Resources Sensitivity Training. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-9. Paleontological Discoveries. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-10. Human Remains Discoveries. See Impact 3.6-4 for a description of this mitigation measure.

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

Mitigation Measure 3.13-1. Construction Noise. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-2. Stationary-Noise Source. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-3. Measure 3.13-3. See Impact 3.13-2 for a description of this mitigation measure.

Mitigation Measure 3.13-4. New Development Near Railroad Tracks. See Impact 3.13-4 for a description of this mitigation measure.

Mitigation Measure 3.15-1. Traffic Control Plan. See Impact 3.10.6 for a description of this mitigation measure.

Impact 3.17-5: Projects facilitated by the 2045 CAP would result in a cumulatively considerable contribution to a significant cumulative impact relating to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Construction of new water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities would result in significant and unavoidable impacts and the incremental impacts contributed by projects facilitated by the 2045 CAP would be cumulatively considerable. In an attempt to reduce these impacts, the Project would necessitate the implementation of Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4 from *Air Quality*, Mitigation Measure 3.5-1 through Mitigation Measure 3.5-5 from *Biological Resources*, Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10 from *Cultural Resources*, Mitigation Measure 3.10-2 from *Hazards and Hazardous Materials*, Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4 from *Noise*, and Mitigation Measure 3.15-1 from *Transportation*. Although these mitigation measures would reduce the incremental impacts of the Project, the Project's contribution to cumulative impacts in many instances would remain cumulatively considerable. The Board, therefore, finds that even with implementation of the identified mitigation measures, Impact 3.17-5 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1. Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2. Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3. Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4. Enhanced Energy Conservation. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.5-1. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-2. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-3. See Impact 3.5-4 for a description of this mitigation measure.

Mitigation Measure 3.5-4. See Impact 3.5-9 for a description of this mitigation measure.

Mitigation Measure 3.5-5. See Impact 3.5-6 for a description of this mitigation measure.

Mitigation Measure 3.6-1: Historic Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-7. Paleontological Resources Assessment and Monitoring. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-8. Paleontological Resources Sensitivity Training. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-9. Paleontological Discoveries. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-10. Human Remains Discoveries. See Impact 3.6-4 for a description of this mitigation measure.

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

Mitigation Measure 3.13-1. Construction Noise. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-2. Stationary-Noise Source. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-3. Measure 3.13-3. See Impact 3.13-2 for a description of this mitigation measure.

Mitigation Measure 3.13-4. New Development Near Railroad Tracks. See Impact 3.13-4 for a description of this mitigation measure.

Mitigation Measure 3.15-1. Traffic Control Plan. See Impact 3.10.6 for a description of this mitigation measure.

Impact 3.17-7: Projects facilitated by the 2045 CAP would cause or contribute a cumulatively considerable contribution to a significant cumulative impact relating to inadequate wastewater treatment capacity.

Finding 3: There are no feasible and reasonable mitigation measures which would reduce this impact to a less-than-significant level. The Board hereby makes Finding 3 and determines that this impact would be significant and unavoidable.

Facts in Support of Finding: Construction of new water recycling and direct potable reuse facilities would result in significant and unavoidable impacts and the incremental impacts contributed by projects facilitated by the 2045 CAP would be cumulatively considerable. To reduce these impacts, implementation of the following mitigation measures is recommended at the Program level: Mitigation Measure 3.4-1 through Mitigation Measure 3.4-4 from *Air Quality*, Mitigation Measure 3.5-1 through Mitigation Measure 3.5-5 from *Biological Resources*, Mitigation Measure 3.6-1 through Mitigation Measure 3.6-10 from *Cultural Resources*, Mitigation Measure 3.10-2 from *Hazards and Hazardous Materials*, Mitigation Measure 3.13-1 through Mitigation Measure 3.13-4 from *Noise*, and Mitigation Measure 3.15-1 from *Transportation*. Although these mitigation measures would reduce the incremental impacts of the Project, the Project's contribution to cumulative impacts in many instances would remain cumulatively considerable. The Board, therefore, finds that even with implementation of the identified mitigation measures, Impact 3.17-7 would be significant and unavoidable. No additional feasible mitigation is available.

Mitigation Measures:

Mitigation Measure 3.4-1. Construction Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-2. Operational Fugitive Dust Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-3. Architectural Coating VOC Emissions. See Impact 3.4-1 for a description of this mitigation measure.

Mitigation Measure 3.4-4. Enhanced Energy Conservation. See Impact 3.4-2 for a description of this mitigation measure.

Mitigation Measure 3.5-1. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-2. See Impact 3.5-2 for a description of this mitigation measure.

Mitigation Measure 3.5-3. See Impact 3.5-4 for a description of this mitigation measure.

Mitigation Measure 3.5-4. See Impact 3.5-9 for a description of this mitigation measure.

Mitigation Measure 3.5-5. See Impact 3.5-6 for a description of this mitigation measure.

Mitigation Measure 3.6-1: Historic Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-2. Archaeological Resources Assessment. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-3. Construction Worker Cultural Resources Sensitivity Training. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-4. Archaeological Resources Discoveries. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-5. Treatment of Archaeological Resources. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-6. Curation and Disposition of Cultural Materials. See Impact 3.6-1 for a description of this mitigation measure.

Mitigation Measure 3.6-7. Paleontological Resources Assessment and Monitoring. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-8. Paleontological Resources Sensitivity Training. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-9. Paleontological Discoveries. See Impact 3.6-3 for a description of this mitigation measure.

Mitigation Measure 3.6-10. Human Remains Discoveries. See Impact 3.6-4 for a description of this mitigation measure.

Mitigation Measure 3.10-2. See Impact 3.10-2 for a description of this mitigation measure.

Mitigation Measure 3.13-1. Construction Noise. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-2. Stationary-Noise Source. See Impact 3.13-1 for a description of this mitigation measure.

Mitigation Measure 3.13-3. Measure 3.13-3. See Impact 3.13-2 for a description of this mitigation measure.

Mitigation Measure 3.13-4. New Development Near Railroad Tracks. See Impact 3.13-4 for a description of this mitigation measure.

Mitigation Measure 3.15-1. Traffic Control Plan. See Impact 3.10.6 for a description of this mitigation measure.

VII. FINDINGS REGARDING ALTERNATIVES

An EIR must contain a discussion of “a range of reasonable alternatives to a project, or the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives.” (CEQA Guidelines, § 15126.6(a).) CEQA further states that “the range of alternatives in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.” (CEQA Guidelines, § 15126.6(f).) Thus, the following discussion focuses on project alternatives that are capable of eliminating significant environmental impacts or substantially reducing them as compared to the Project, even if the alternative would impede the attainment of some project objectives or would be more costly. Among the factors that may be taken into account when

addressing the feasibility of alternatives are: (1) site suitability; (2) economic viability; (3) availability of infrastructure; (4) general plan consistency; (5) other plans or regulatory limitations; (6) jurisdictional boundaries; and (7) whether the proponent can reasonably acquire, control or otherwise have access to the alternative site. (CEQA Guidelines, § 15126.6(f)(1).)

The objectives of the Project listed in the Recirculated Draft PEIR (Project Objectives) include: (1) Identify detailed programs, actions, and performance goals to achieve the climate action policies of the General Plan. (2) Identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals. (3) Provide a road map for reducing GHG emissions to achieve the County's GHG emissions reduction targets. (4) Encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan. (5) Demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (serve as a "qualified CAP") via a Draft 2045 CAP CEQA Streamlining Checklist.

As required by CEQA, in developing the alternatives to be addressed in this section, consideration was given to an alternative's ability to meet most of the basic objectives of the project. (CEQA Guidelines, § 15126.6(a).) Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects. (CEQA Guidelines, § 15126.6(c).) The concept of "feasibility" encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (*City of Del Mar*); *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509 [court upholds CEQA findings rejecting alternatives in reliance on applicant's project objectives]; see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001 (CNPS) ["an alternative 'may be found infeasible on the ground it is inconsistent with the project objectives as long as the finding is supported by substantial evidence in the record'"] (quoting *Kostka & Zischke, Practice Under the Cal. Environmental Quality Act* [Cont.Ed.Bar 2d ed. 2009] (*Kostka*), § 17.39, p. 825); *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166 ["[i]n the CALFED program, feasibility is strongly linked to achievement of each of the primary project objectives"; "a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal"].) Moreover, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors." (*City of Del Mar, supra*, 133 Cal.App.3d at p. 417; see also *CNPS, supra*, 177 Cal.App.4th at p. 1001 ["an alternative that 'is impractical or undesirable from a policy standpoint' may be rejected as infeasible"] [quoting *Kostka, supra*, § 17.29, p. 824]; *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 17.) Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered. (CEQA Guidelines, § 15126(f)(2).)

a. Findings Regarding Alternatives Considered But Rejected

During public review of the Recirculated Draft PEIR, some commenters suggested that the PEIR analyze an alternative to the Project for the development of small-scale renewable resource generation. (See Recirculated Draft PEIR Comment O2-8.) The Board rejects a Project alternative for the development of small-scale renewable resource generation on the basis that such an alternative is infeasible, the suggestion pertains to a component of the Project rather than the Project as a whole, and such an alternative would not substantially reduce the Project's significant environmental impacts for the reasons

set forth in General Response 1 and Response to Comment O2-8. Other comments suggested a Project alternative for battery storage resources to be distributed throughout urban load pockets to supply local energy needs and for expanding and streamlining battery storage. (See Recirculated Draft PEIR Comments O2-8, O2-11, O2-24, O2-25, O2-26, and O2-28.) The Board rejects as infeasible a Project alternative for distributed battery storage resources throughout urban load pockets and for expanding and streamlining battery storage on the basis that such an alternative is infeasible, the suggestion pertains to a component of the Project rather than the Project as a whole, and this suggested alternative would not substantially reduce the Project's significant environmental impacts for the reasons set forth in General Response 1 and Response to Comments O2-8, O2-11, O2-24, O2-25, O2-26, and O2-28. One comment suggested an alternative to replace roadways with cool or green surfaces. (See Recirculated Draft PEIR Comment O2-42.) The Board rejects as infeasible a Project alternative for replacing roadways with cool or green surfaces on the basis that such an alternative is infeasible, the suggestion pertains to a component of the Project rather than the Project as a whole, and such an alternative would not substantially reduce the Project's significant environmental impacts for the reasons set forth in General Response 1 and Response to Comment O2-42. One comment suggested the PEIR analyze an alternative to the Project for distributed energy resources. (See Recirculated Draft PEIR Comment O7-50.) The Board rejects as infeasible a Project alternative for distributed energy resources on the basis that such an alternative is infeasible, the suggestion pertains to a component of the Project rather than the Project as a whole, and the suggested alternative would not substantially reduce the Project's significant environmental impacts for the reasons set forth in General Response 1 and Response to Comment O7-50.

The alternatives listed below were originally considered but eliminated from further consideration in the PEIR because they failed to feasibly attain most of the basic objectives of the Project, were infeasible, or failed to avoid or substantially reduce any significant environmental effects. They are as follows:

- Carbon Neutrality Target by 2045 Alternative
 - What would be required to achieve a target of carbon neutrality by 2045 would be beyond what the County alone could implement, and it would be speculative to assume that technological advancements to achieve carbon neutrality would become available within the next 25 years. Accordingly, a Carbon Neutrality Target by 2045 Alternative was not carried forward for more detailed evaluation because it is speculative and potentially infeasible: There is no present basis to assume that it could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.
- More Aggressive Timeline to Carbon Neutrality Alternative
 - As discussed above as to why the Carbon Neutrality Target by 2045 Alternative was not carried forward, as there is no present basis to assume that it could be accomplished in a successful manner within a reasonable period of time. An even more aggressive timeline to achieving carbon neutrality than 2045 also was not carried forward for more detailed review because it would be even more speculative to assume that the technological advancements needed to achieve carbon neutrality, in addition to those identified above, would become available in time.
- Minimize Loss of Carbon Sequestration Caused by Development Alternative
 - This potential alternative was not carried forward because it would not meet most of the basic Project Objectives. More specifically, a Minimize Loss of Carbon Sequestration Caused by Development Alternative would not implement the climate action policies of the General Plan (Objective 1); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the

County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects (“qualified CAP”) (Objective 5). The Minimize Loss of Carbon Sequestration Caused by Development Alternative has also been rejected from more detailed consideration because it is legally infeasible: it would not permit the County to fully meet its Regional Housing Needs Allocation (as mandated by state housing law) within the unincorporated areas.

- Substantially Reduced Vehicle Miles Traveled Alternative
 - The Substantially Reduced Vehicle Miles Traveled Alternative was not carried forward for more detailed review because its implementation would be remote or speculative. Total VMT in California and in the County is the product of myriad individual decisions made daily by households and businesses. Achieving a substantial reduction in VMT would require a major shift in decision-making by households and businesses alike, beyond the ability of the County to implement. Significantly improved transit and alternative transportation infrastructure, widespread and inexpensive access to single-occupancy vehicle alternatives, and substantial financial incentives to use these transportation alternatives or (alternatively) providing considerable disincentives to drive could all be part of the solution. However, there is no basis to assume that this alternative could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. The time and expense required to implement this alternative, such as substantially upgrading transportation infrastructure, would compete with the County’s pursuit of other community priorities, such as health, bridging the digital divide, child welfare, affordable housing, justice reform, and support for immigrant residents and their families.
- Aquatic Impact Avoidance Alternative
 - The Aquatic Impact Avoidance Alternative has not been carried forward for more detailed review because it would not meet most of the basic Project Objectives. Such an alternative would not implement the climate action policies of the General Plan (Objective 1); would not identify appropriate GHG emissions reduction targets that closely align with state and local climate goals (Objective 2); would not provide a road map to achieve GHG reductions to meet the GHG emissions reduction targets (Objective 3); and would not encourage sustainable housing production at all levels of affordability, including increasing housing densities near transit to the extent allowed in the General Plan (Objective 4).
 - This alternative also was not carried forward for more detailed review because its implementation is remote or speculative. Opportunities to successfully address those challenges have not been developed; therefore, the impacts of implementing the alternative cannot be reasonably ascertained.
 - Further, this alternative would not avoid or substantially lessen a significant impact of the Project. As analyzed in the context of Impact 3.11-3 in Section 3.11, Hydrology and Water Quality, approval of the 2045 CAP would not substantially alter the existing drainage pattern of the site or area, alter the course of a stream or river, or add impervious surfaces in a manner that would result in a significant impact. As analyzed in the context of criterion c) in Section 3.5, Biological Resources, approval of the 2045 CAP could incentivize future projects—such as those supporting the electrification of new development—that could cause a significant adverse impact on state or federally protected wetlands (e.g., marshes, vernal pools, or coastal wetlands) through direct removal, filling, hydrological interruption, or other means.
- Complete Phase-Out of Oil and Gas Operations by 2030 Alternative

- The Complete Phase-Out of Oil and Gas Operations by 2030 Alternative was not carried forward for more detailed review for several reasons. First, this alternative would not clearly avoid or substantially lessen any of the potential significant impacts of the Project. It is possible that this alternative could worsen or increase the Project's potential short-term significant impacts, such as localized construction-related air quality and health risk impacts from decommissioning of oil and gas wells and remediation activities at contaminated sites, though there would be future benefits.
- Second, the implementation of this alternative would be remote or speculative, given that without the amortization study, it is not possible to know whether the alternative is feasible. Without more information from this detailed study, it is speculative to assume that implementing this alternative is possible. There is no basis to assume that this alternative could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.
- Third, this alternative addresses only one of the CAP's many measures, Measure ES 1 (Sunset Strategy for All Oil and Gas Operations). An EIR is required to consider alternatives to the project as whole, and is not required to consider alternatives to each project component.
- Limited-Scope CAP Alternative
 - This alternative would not implement the climate action policies of the General Plan (Objective 1) because, for example:
 - Its lower performance goal for Measure ES2 would conflict with Policy AQ 3.9 to "Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County."
 - Its lower performance goal for Measure T6 would conflict with Policy AQ 2.7 to "Encourage and support the development and implementation of Zero-Emission technology and infrastructure."
 - Its lower performance goal for Measure E1 would conflict with Policy AQ 3.5 to "Require the full electrification of new development."
 - This alternative would not provide a feasible and realistic road map for reducing GHG emissions to achieve the GHG emissions reduction targets (Objective 3) because it would call for a CAP that does the bare minimum to achieve the County's targets, with no margin of safety. Such a CAP would provide no emissions "buffer" if certain measures and actions are not as effective in reducing GHG emissions in the future as they were modeled during the planning stage.
 - This alternative also would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and thus be a "qualified CAP" (Objective 5). This alternative would put the County in danger of missing its GHG emissions reduction targets, and thus would not be a reliable pathway to achieving a level of GHG emissions below which GHG emissions in the County would have less than cumulatively considerable GHG impacts.

Thus, the Recirculated Draft PEIR presents a reasonable range of feasible alternatives to the Project that would reduce and/or avoid some of the Project's significant environmental effects while achieving most of the Project Objectives. The following findings and brief explanation of the rationale for the findings

regarding Project alternatives identified in the PEIR are set forth to comply with the requirements of CEQA Guidelines section 15091(a)(3).

Four alternatives to the Project were defined and analyzed:

b. Findings Regarding Alternatives Analyzed in the PEIR

The Recirculated Draft PEIR analyzed three alternatives in addition to the No Project Alternative in Chapter 4, *Alternatives*, which sets forth the objectives of the Project, summarizes the Project's significant environmental impacts, discusses the alternatives considered but eliminated from further analysis, describes the alternatives evaluated in detail, and compares the impacts of the alternatives evaluated to the impacts of the Project. The Final EIR's Table 4-6, *Summary of Impacts of the Project and Alternatives*, summarizes the significant environmental impacts of the Project alternatives, and provides a fact-based comparison of the alternatives' impacts to the Project's impacts. The Project alternatives are summarized below along with the findings relevant to each alternative.

1. No Project Alternative.

Facts in Support of Finding: An EIR's discussion of alternatives to the proposed project must include a "no project alternative" to allow a comparison of the environmental impacts of approving the proposed project with the effects of not approving it. (CEQA Guidelines, § 15126.6(e)(1).) The No Project Alternative examines a scenario in which the County would not approve the 2045 CAP for implementation in the unincorporated areas and none of the GHG emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented. The No Project Alternative is captured in the 2045 CAP's Adjusted business-as-usual (BAU) forecast, which accounts for future growth under BAU conditions but adjusts for federal, state, and County legislation and regulations that were implemented before development of the 2045 CAP.

The No Project Alternative would not implement the Project's GHG emissions reduction strategies, measures, or actions, which would facilitate fewer projects compared with implementation of the 2045 CAP. Because the No Project Alternative would facilitate fewer projects, the No Project Alternative would result in fewer adverse physical environmental impacts on the project area and its surrounding environment in comparison to the impacts associated with implementation of the 2045 CAP strategies, measures, and actions. (See Table 4-6 in Chapter 4, *Alternatives*, which provides a comparative summary of environmental impacts.)

However, in the long-term, the No Project Alternative would result in fewer environmental benefits to the County overall because air pollutant and GHG emissions would be much higher than emissions levels associated with all other alternatives and the Project. The No Project Alternative would result in greater human health risks associated with exposure to toxic air contaminants than all other alternatives and the Project, because all other alternatives and the Project would substantially reduce toxic air contaminant (TAC) emissions in the County. The No Project Alternative would neither realize the long-term GHG emission reduction benefits associated with implementation of the 2045 CAP (and all the co-benefits that would also occur, such as reduced criteria pollutant and TAC emissions), nor provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet and exceed the 2045 direct emission reduction target and carbon neutrality goal established by AB 1279.

The No Project Alternative would not further many County goals and policies. Specifically, the No Project Alternative would not achieve or support the County Board of Supervisors' motions pertaining to supporting the Paris Agreement, equitable energy grid resiliency, zero-emissions medium- and heavy-duty vehicles, climate resilient communities, and equitable decarbonization of buildings.

Importantly, the No Project Alternative would not achieve any of the Project's basic objectives; specifically, the No Project Alternative would not implement the climate action policies of the General Plan (Objective 1); would not identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals (Objective 2); would not provide a road map to achieve GHG reductions to meet the GHG emissions reduction targets (Objective 3); would not encourage sustainable housing production (Objective 4); and would not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects ("qualified CAP") (Objective 5).

Finding: The EIR, including Chapter 4 of the Recirculated Draft PEIR, contains facts and analysis supporting the Finding, some of which are set forth here. Under the No Project Alternative, none of the GHG emissions reduction strategies, measures, or actions outlined in the 2045 CAP would be implemented in the unincorporated areas, resulting in fewer adverse environmental impacts than the Project because it would avoid all adverse impacts caused by projects facilitated by the 2045 CAP. (See Table 4-6 in Chapter 4, *Alternatives*, which provides a comparative summary of environmental impacts.) However, in the long-term, the No Project Alternative would result in less environmental benefits to the County overall, as air pollutant and GHG emissions would be higher than emissions levels associated with all other alternatives and the Project, resulting in greater human health risks. The No Project Alternative would neither realize the long-term GHG emission reduction benefits associated with implementation of the 2045 CAP nor provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet the 2045 carbon neutrality goal established by AB 1279. Lastly, the No Project Alternative would not achieve any of the Project's Objectives, which makes this alternative undesirable from a policy standpoint and therefore, the Board rejects the No Project Alternative as infeasible.

2. Alternative 1: Carbon Offset Alternative

Facts in Support of Finding:

Under Alternative 1, in addition to implementing the measures and actions called for by the 2045 CAP, the County would reduce GHG emissions by purchasing carbon offsets. Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global warming-potential gas use with a gas that has a lower global warming potential, or implement other measures. To achieve the greatest environmental co-benefits to the County, priority would be given, from highest to lowest, to offsets purchased from local projects (within Los Angeles County), regional projects (from within Southern California), projects within California, projects outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and projects elsewhere in the United States.

Implementation of Alternative 1 would generally result in the same environmental impacts as the Project but would result in greater environmental impacts associated with hazards and hazardous materials as well as utilities and service systems. Implementation of Alternative 1 would facilitate projects that include

wind projects with wind turbines that could result in a safety hazard for people residing or working in the project area due to collision risk, interference with radar or other air navigation tools, and other hazards related to air navigation. Additionally, implementation of this alternative would facilitate projects that would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on the purchase of carbon offsets. As such, some of the adverse impacts caused by projects facilitated by Alternative 1, as compared to impacts under the 2045 CAP, would occur outside the County and so would not be subject to the same local thresholds that apply to the Project, such as thresholds established in the County General Plan or by the South Coast Air Quality Management District. Alternative 1 would result in fewer environmental benefits to the County overall because the reductions in air pollutant and GHG emissions could be realized elsewhere in Southern California, the State, or the Pacific Southwest, and because greater environmental impacts could result from wind projects facilitated by the purchase of carbon offsets.

Importantly, Alternative 1 would not provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet the 2045 direct emission reduction target established by AB 1279. This is because CARB's statewide targets are to reduce direct emissions occurring within state boundaries, and do not allow for carbon offsets occurring outside of the state to contribute to these targets (for example, AB 1279 states that it is "the policy of the state... to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels"). Only the state's 2045 net zero GHG emissions target appears to allow offsets. Similarly, Alternative 1 would not provide a clear pathway for the County to meet the County's local GHG reduction targets identified in the 2045 CAP. Specifically, the 2045 CAP's GHG reduction targets for 2030, 2035, and 2045 are to reduce direct, in-boundary county emissions to specific levels below 2015 emissions. Carbon offsets would likely not produce emission reductions within unincorporated county boundaries because there likely aren't enough offsets within the County to achieve these GHG targets. As such, Alternative 1 may not achieve Project Objective 2.

Alternative 1 would also likely not achieve Project Objective 5 to allow CEQA streamlining for future development projects because CEQA Guidelines section 15183.5(b)(1)(B) states that GHG reduction plans must "[e]stablish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions *from activities covered by the plan* would not be cumulatively considerable" (emphasis added). Because the 2045 CAP's GHG emission reduction targets apply to GHG emissions associated with activities occurring within unincorporated county boundaries, and the targets would be achieved by reducing GHG emissions "from activities covered by the plan," reducing emissions outside of county boundaries for activities not covered by the plan through the use of carbon offsets would not contribute toward meeting the represent 2045 CAP's GHG emission reduction targets. In addition, CEQA Guidelines section 15183.5(b)(1)(C) states that GHG reduction plans must "[i]dentify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions *anticipated within the geographic area*" (emphasis added) and CEQA Guidelines section 15183.5(b)(1)(D) states that GHG reduction plans must "[s]pecify measures... that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively *achieve the specified emissions level*" (emphasis added). Because carbon offsets would produce GHG emission reductions that occur outside the geographic area of the 2045 CAP (i.e., unincorporated county boundaries), and because the 2045 CAP's GHG emission reduction targets apply to GHG emissions associated with activities occurring within unincorporated county boundaries, carbon offsets would likely not achieve 2045 CAP's GHG emission reduction targets. As such, Alternative 1 is undesirable from a policy standpoint and would also likely conflict with several project objectives.

Alternative 1 is infeasible from a policy standpoint, given the uncertainties with its implementation. The volatile cap and trade market makes it difficult to anticipate the cost of regulatory carbon allowances. The County would have to purchase and retire carbon offsets from the voluntary market, which is not regulated. Prices in the voluntary carbon market vary widely depending on the type, size, and location of the project generating the offset, as well as the protocol or standard under which it was developed. A review of over-the-counter reputable offset retailers, conducted in April 2022, reveals current prices for voluntary offsets ranging from approximately \$15 to \$25 per metric ton of carbon dioxide equivalent (MTCO_{2e}). Based on these prices, the 2022 purchase of 1.25 million MTCO_{2e} could range from \$17 million to \$36 million per year. Funding sources would have to be identified, but theoretically could be sourced from the County General Fund, existing or new development fees, or other sources. However, it is unlikely that other funding sources, such as those from CARB or the U.S. EPA, could be used to finance the purchase of out-of-county and out-of-state carbon offsets, since these funding programs are generally designed to reduce direct, in-boundary emissions within the influence or control of the agency or jurisdiction applying for the funds.

To implement Alternative 1, the County would have to purchase and retire carbon offsets from the unregulated voluntary carbon market on an annual basis to meet the County's annual GHG emission reduction targets, and the prices of voluntary GHG offset credits vary widely such that it is difficult to anticipate the cost of offset purchases. Implementation of Alternative 1 could be more expensive than implementation of the Project because costs would be greater if the cost per MTCO_{2e} for voluntary offsets were greater than the cost per MTCO_{2e} reduced by local CAP measures. Additionally, the County would have to purchase voluntary GHG offset credits perpetually each year to achieve the 2045 CAP's annual GHG emission reduction targets, while most of the 2045 CAP's measures and actions, once implemented, would result in GHG reductions every year in perpetuity. For example, decarbonizing a single building in 2025 would produce annual GHG emission reductions over the entire life of the building (30+ years), but if these reductions were instead achieved through offsets, the County would have to purchase an individual carbon offset credit for each year of that building's operation to achieve the same cumulative annual GHG reductions as that building's decarbonization. The uncertainty of the prices in the unregulated voluntary carbon market contributes to the uncertainty of implementation, making Alternative 1 undesirable from a policy standpoint.

Finding: The EIR, including Chapter 4 of the Recirculated Draft PEIR, contains facts and analysis supporting the Finding, some of which are set forth here. Alternative 1 would have similar but incrementally fewer adverse environmental impacts than the Project because some of the adverse impacts caused by projects facilitated by Alternative 1, as compared to impacts under the 2045 CAP, would occur outside the County and so would not be subject to the same local thresholds that apply to the Project, such as thresholds established in the County General Plan or by the South Coast Air Quality Management District. However, in the long-term, Alternative 1 would result in fewer environmental benefits to the County overall, because the reductions in air pollutant and GHG emissions could be realized elsewhere in Southern California, the State, or the Pacific Southwest and because greater environmental impacts associated with hazards and hazardous materials as well as utilities and service systems could result from wind projects facilitated by the purchase of carbon offsets; this makes Alternative 1 undesirable from a policy standpoint. Alternative 1 is also rejected because the uncertainty of the prices in the unregulated voluntary carbon market makes Alternative 1 undesirable from a policy standpoint, and makes the financial feasibility of Alternative 1 uncertain in the long-term (especially through 2045). Lastly, Alternative 1 is rejected by the Board as undesirable from a policy standpoint on the basis of inconsistency with County goals and policies to meet and exceed the statewide 2030 GHG

reduction goal identified in SB 32 or meet the 2045 carbon neutrality goal established by AB 1279 in the unincorporated areas of the County, Alternative 1 is further rejected as undesirable from a policy standpoint because Alternative 1 would result in greater impacts to hazards and hazardous materials and utilities and service systems than the Project. For the above stated reasons, the Board rejects Alternative 1 as infeasible.

3. Alternative 2: Zero Net Energy Buildings Alternative

Facts in Support of Finding: Zero net energy (ZNE) buildings produce enough renewable energy to meet their own annual energy consumption requirements, thereby reducing the use of nonrenewable energy in the building sector. These buildings achieve ZNE first through high levels of energy efficiency to minimize energy use, then through the addition of on-site renewable power generation and renewable energy storage systems (e.g., batteries). Under Alternative 2, the County would supplement its implementation of the Draft 2045 CAP measures and actions by requiring all new residential and commercial construction in the unincorporated areas to be ZNE by 2025, 50 percent of residential and commercial buildings in the unincorporated areas to be retrofitted to ZNE by 2030, 50 percent of new major renovations of County buildings to be ZNE by 2025, and the energy usage footprint of local government buildings to be 50 percent below 2015 levels by 2030. Further, Alternative 2 would reward projects in the unincorporated areas that voluntarily exceed state and local minimum energy codes by expedited permitting and favorable fee structures.

Energy efficiency measures include building design elements that reduce energy demand such as high-performance building envelopes, air barrier systems, daylighting, sun control and shading design, window selection and glazing, passive solar heating, natural ventilation, and water conservation. Energy use could be managed with efficient equipment and systems, such as energy-efficient lighting; electric lighting controls; high-performing heating, ventilation, and air conditioning; and energy-conversion devices. Once efficiency measures have been incorporated, the remaining energy needs of the building can be met with on-site renewable energy generation and storage. Common on-site electricity generation strategies include photovoltaic solar panels on rooftops or over surface parking, and solar water heating.

This alternative would worsen or increase the Project's significant and unavoidable air quality impacts related to operational criteria pollutant emissions and localized construction-related health risks from toxic air contaminants because the alternative would facilitate additional new construction of ZNE buildings that would cause short-term construction emissions that could exceed the SCAQMD's project-level thresholds and expose additional sensitive receptors to pollutant concentrations from localized emissions near those construction sites. Alternative 2 would also result in worse significant and unavoidable localized noise impacts than the Project. Construction of ZNE buildings facilitated by Alternative 2 would result in short-term construction noise and create new stationary noise sources that could exceed noise levels in excess of standards. Additionally, such construction of ZNE buildings would result in significant and unavoidable groundborne vibration impacts that exceed standards. As such, implementation of Alternative 2 would result in significant and unavoidable noise and vibration impacts (as well as result in cumulatively considerable noise and vibration impacts) at a greater level than the Project. Implementation of Alternative 2 would also result in greater transportation impacts compared with the Project, as construction of ZNE buildings would increase the amount of heavy-duty construction vehicles on roadways, which could substantially increase hazards due to incompatible uses with normal vehicles on roadways. Alternative 2 would create safety and mobility concerns for motorists, transit operators, bicyclists, and/or pedestrians during construction activities and result in a greater impact than the Project. This alternative would also contribute to a greater impact on utilities and service systems because

projects facilitated by Alternative 2 would not encourage the reduction of solid waste like those facilitated by the Project, and instead would focus on water and energy efficiencies.

Finding: The EIR, including Chapter 4 of the Recirculated Draft PEIR, contains facts and analysis supporting the Finding, some of which are set forth here. Alternative 2 would cause similar but incrementally greater adverse environmental impacts than the Project because the additional construction of new and retrofitted ZNE buildings would increase impacts for air quality, noise and vibration, transportation, and utilities and service systems. Alternative 2 is rejected by the Board as undesirable from a policy standpoint and infeasible on the basis of environmental considerations described above, as Alternative 2 would result in greater adverse environmental impacts than the Project on air quality, noise and vibration, transportation, and utilities and service systems. For the above stated reasons, the Board rejected Alternative 2 as infeasible.

4. Alternative 3: Lower Targets Alternative

Facts in Support of Finding: Under Alternative 3, the GHG emissions reduction targets of the 2045 CAP would be lower than those contained in the 2045 CAP. These targets would represent the minimum targets needed to “align” with California’s codified statewide targets for 2030 and 2045. Specifically, the targets under Alternative 3 would be:

- By 2030, reduce emissions to 31 percent below 2015 levels (equivalent to a 40 percent reduction below 1990 levels).
- By 2035, maintain the same level of GHG reductions achieved in 2030.
- By 2045, reduce emissions to 83 percent below 2015 levels (equivalent to an 85 percent reduction below 1990 levels).

Because Alternative 3 has lower GHG emissions reduction targets for years 2030 and 2035 compared to the Project, implementation of Alternative 3 would facilitate fewer projects through 2030 and 2035 to achieve the lower targets. Additionally, performance objectives for the measures and actions would be reduced compared to the Project. This is because the County would implement fewer 2045 CAP strategies, measures, and actions to reduce GHG emissions to achieve the less aggressive reduction targets. For example, Measure T6, Increase ZEV Market Share, has a 2030 performance goal of a 30 percent ZEV fleetwide percentage for light-duty vehicles in the County; under Alternative 3, this performance objective would likely be reduced to a 10 percent ZEV market share (or lower). Because Alternative 3 would facilitate fewer new projects through 2030 and 2035, it would result in less construction of new projects having physical environmental impacts compared with that anticipated under the Project. Thus, implementation of Alternative 3 would result in less adverse physical environmental impacts on the project area and its surrounding environment compared to the impacts associated with implementation of the 2045 CAP strategies, measures, and actions needed to meet the Project’s higher GHG emissions reduction targets.

While Alternative 3’s reduced performance objectives would facilitate fewer projects in the short-term for years 2030 through 2035 compared to the Project, it would likely facilitate the same number of projects through 2045, resulting in the same environmental impacts through 2045 compared to the Project. However, implementation of Alternative 3 would more likely facilitate a greater number of projects in the 2035 to 2045 period than the Project. Consequently, Alternative 3 would delay the realization of its environmental impacts but would not lessen or eliminate these adverse environmental impacts entirely and would likely worsen environmental impacts during the 2035 to 2045 timeframe compared to the Project.

Regarding specific environmental impacts, Alternative 3 would result in similar but lesser impacts than the Project on the following resource areas: aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, transportation, and wildfire. However, Alternative 3 would result in greater impacts than the Project for energy, GHG emissions, and air quality. Alternative 3 would also likely result in greater impacts for utilities and service systems.

Alternative 3 would result in greater energy impacts than the Project because Alternative 3 would facilitate fewer projects that would reduce Countywide energy use compared to the Project, resulting in greater energy consumption than the Project. Because Alternative 3 would facilitate fewer projects that would increase renewable energy use compared to the Project, implementation of Alternative 3 would result in much less renewable energy use and much greater non-renewable and fossil energy use as compared to the Project.

Alternative 3 would result in greater GHG emissions impacts because Alternative 3 would not reduce Countywide GHG emissions as much as the Project through 2030 and 2035, producing much greater GHG emissions than the Project. This much higher level of GHG emissions associated with Alternative 3 would likely cause the alternative to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB 2022 Scoping Plan, SB 32, AB 1279, the Southern California Association of Governments 2020–2045 RTP/SCS, the OurCounty Sustainability Plan, the CALGreen Code, and the Los Angeles County Green Building Ordinance.

Implementation of Alternative 3 would result in greater air quality impacts than the Project for operational impacts because Alternative 3 would facilitate fewer projects through 2030 and 2035, resulting in much greater emissions of criteria pollutants and TACs throughout the county for these years as compared to the Project, which would result in greater human health risks than the Project. This greater level of criteria pollutant and TAC emissions associated with implementation of Alternative 3 could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or emissions reductions in the SCAQMD 2016 AQMP or the AVAQMD 2017 Ozone Attainment Plan. Alternative 3 would result in a greater impact associated with exposure of sensitive receptors to operational TAC emissions because Alternative 3 would result in much greater operational TAC emissions than the Project.

Finally, Alternative 3 could result in greater utilities and service systems impacts because projects facilitated by Alternative 3 would lead to increased use of recycled and gray water systems compared to the Project, increasing the amount of wastewater requiring treatment by wastewater treatment providers, requiring the development of new water recycling and direct potable reuse facilities. Alternative 3 would also not encourage the reduction of solid waste to the same extent as those facilitated by the Project, resulting in greater solid waste generation and greater need for solid waste processing and disposal.

Importantly, Alternative 3 would not meet Project Objectives 1, 2, and 5. Alternative 3 would not meet Project Objective 1 (identify detailed programs, actions, and performance goals to achieve the climate policies of the General Plan) because implementation would result in an inconsistency with the County's General Plan Policy AQ 3.9 ("Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County."). As stated above, Alternative 3 has lower GHG emissions reduction targets for years 2030 and 2035 compared to the Project such that Alternative 3's performance objectives for CAP strategies, measures, and actions would be lower than the Project's performance objectives. For example, Alternative 3 would reduce the performance objectives for 2045 CAP Measure ES2, *Procure*

Zero Carbon Electricity, which is to supply the County's power demand with zero-carbon electricity and is critical to achieving significant GHG emissions reductions. If the performance goals of Measure ES2 were reduced, then Alternative 3 would conflict General Plan Policy AQ 3.9 because Measure ES2 would not require zero-carbon electricity to serve the County. Measure ES2 is one of the five core measures necessary to meet the Project's targets for 2030 and 2035. Reducing Measure ES2's performance objectives would inhibit the County's ability to exceed the 2030 target by more than 160,000 MTCO_{2e} and the 2035 target by more than 230,000 MTCO_{2e}, which would occur under implementation of the Project.

Alternative 3 would not meet Project Objective 2 (identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals) because implementation of Alternative 3 does not align with County or state goals. The 2030 target of 40 percent below 1990 levels is far off the emissions reduction trajectory needed to achieve emissions of 83 percent below 2015 levels by 2045, which means that Alternative 3 does not align with either County or state goals (Recirculated Draft PEIR, pp. 4.18 to 4.19). Specifically, CARB projects that a 48 percent reduction in 1990 emissions levels by 2030 is needed: "The Scoping Plan Scenario achieves the AB 1279 target of 85 percent below 1990 levels by 2045 and identifies a need to accelerate the 2030 target to 48 percent below 1990 levels" (CARB 2022b). This is far beyond the 40 percent reduction required by SB 32. The Project's 2030 target of 40 percent below 2005 levels is equivalent to 48 percent below 1990 levels, which aligns the Project with state goals and the 2022 Scoping Plan, which Alternative 3 would not do. Additionally, Alternative 3 does not align with the statewide targets codified in AB 1279, which establishes the state policy to achieve net zero GHG emissions as soon as possible but no later than 2045 and to achieve and maintain net negative GHG emissions thereafter. AB 1279 also mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels.

Further, Alternative 3 would not align with the state's GHG emissions reduction goals because it would exclude several recommended priority local GHG emissions reduction strategies that the 2022 Scoping Plan recommends be incorporated "to the extent appropriate to ensure alignment with State climate goals." Such recommended strategies that Alternative 3 would not incorporate includes, for example: creating a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (Measures T6, T7, T8, and T9); increasing access to public transit by increasing density of development near transit (Measure T1); improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, and incorporating microtransit (Measure T4); adopting all-electric new construction reach codes for residential and commercial uses (Measure E2); facilitating deployment of renewable energy production and distribution and energy storage (Measures ES2, ES3, and ES4); and deploying renewable energy production and energy storage directly in new public projects and on existing public facilities (Measure ES3). Alternative 3 would not need these strategies to achieve its reduced targets for 2030 and 2035, thereby conflicting with Project Objective 2.

Alternative 3 would not meet Project Objective 5 (demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects via the Checklist) because Alternative 3's lower targets would not meet CEQA standards for a level of GHG emissions that would not be cumulatively considerable for future environmental review of projects. CEQA requires that thresholds of significance are based on substantial evidence. (CEQA Guidelines, § 15064.7.) Further, CEQA permits lead agencies to develop thresholds of significance for GHG emissions which "consider a project's consistency with the State's long-term climate goals or strategies." (CEQA Guidelines, § 15064.4(b)(3).) The Project's GHG reduction targets are more stringent than or align with statewide targets (Recirculated

Draft PEIR, p. 2-12). However, as discussed above, Alternative 3 would not meet Project Objective 2 because implementation of Alternative 3 does not align with state goals. Consequently, Alternative 3's targets do not demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects, thereby conflicting with Project Objective 5.

Finding: The EIR, including Chapter 4 of the Recirculated Draft PEIR, contains facts and analysis supporting the Finding, some of which are set forth here. Under Alternative 3, the County would establish lower targets than included in the Project, i.e., targets representing the minimum needed to “align” with California’s codified statewide targets for 2030 and 2045. The Board rejects Alternative 3 as undesirable from a policy standpoint and infeasible on the basis of environmental considerations, because Alternative 3 would result in greater adverse environmental impacts associated with energy, GHG, air quality, and utilities and service systems. Alternative 3 would not meet Project Objectives 1, 2, and 5, and the Board finds that Alternative 3’s failure to meet these Project Objectives makes this alternative undesirable from a policy standpoint and rejects Alternative 3 as infeasible. Specifically, Alternative 3 would not align with County and state GHG emissions reduction goals, including the County’s General Plan Policy AQ 3.9, AB 1279, or CARB’s 2022 Scoping Plan. This failure substantially impairs the ability of Alternative 3 to achieve the basic Project Objectives, including Objectives 1, 2, and 5. For the above stated reasons, the Board rejected Alternative 3 as infeasible.

5. Environmentally Superior Alternative

Facts in Support of Finding: CEQA requires an EIR to identify the “environmentally superior alternative” if the no project alternative is environmentally superior. (CEQA Guidelines, § 15126.6 (e)(2).).

The Recirculated Draft PEIR determined that the No Project Alternative is the environmentally superior alternative. The No Project Alternative would not implement the GHG emissions reduction strategies, measures, or actions identified by the Project, which would result in fewer facilitated projects compared with the 2045 CAP and thus, result in fewer adverse environmental impacts in comparison to the impacts associated with implementation of the 2045 CAP. Because the No Project Alternative would avoid impacts potentially associated with facilitated projects in comparison to the impacts associated with implementation of the 2045 CAP, the No Project Alternative is considered the environmentally superior alternative. However, in the long-term, the No Project Alternative would result in substantially fewer environmental benefits to the County overall for several reasons. First, air pollutant (criteria pollutants and toxic air contaminants) and GHG emissions would be much higher under the No Project Alternative than air pollutant and GHG emissions under all other alternatives and the Project such that impacts to human health would be higher. This is because the Project would substantially reduce countywide GHG emissions, and many of these emission reductions would produce parallel reductions in criteria pollutants and toxic air contaminants primarily by reducing fuel combustion. The No Project Alternative would result in greater human health risks associated with exposure to toxic air contaminants than all other alternatives and the Project, because all other alternatives and the Project would substantially reduce TAC emissions in the County. The No Project Alternative would neither realize the long-term GHG emission reduction benefits associated with implementation of the 2045 CAP (and all the co-benefits that would also occur, such as reduced criteria pollutant and TAC emissions), nor provide a clear pathway for the County to meet and exceed the statewide 2030 GHG reduction goal identified in SB 32 or meet and exceed the 2045 direct emission reduction target and carbon neutrality goal established by AB 1279. Significantly, the No Project Alternative would not meet any of the Project Objectives and the County is

not obligated to select the environmentally superior alternative for implementation if it would not accomplish the basic Project Objectives. (CEQA Guidelines, § 15126.6.)

CEQA Guidelines section 15126.6(e)(2) states “[i]f the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Of Alternatives 1-3, Alternative 3 would reduce adverse environmental impacts compared to the Project to the greatest extent because it would facilitate fewer new projects compared with that anticipated under the 2045 CAP.

Because Alternative 3 has lower GHG emissions reduction targets for years 2030 and 2035 compared to the Project, implementation of Alternative 3 would facilitate fewer new projects through 2030 and 2035 to achieve the lower targets and performance objectives for the measures and actions compared to the Project. Thus, the County would implement fewer 2045 CAP strategies, measures, and actions to reduce GHG emissions to achieve the less aggressive reduction targets such that Alternative 3 would result in less short-term adverse physical environmental impacts compared to the impacts associated with implementation of the 2045 CAP strategies, measures, and actions needed to meet the Project’s higher GHG emissions reduction targets.

However, Alternative 3 would likely only delay these impacts as compared to the Project rather than lessen or eliminate these impacts entirely because Alternative 3 has lower GHG emissions reduction targets for years 2030 and 2035 compared to the Project (it has the same targets for the year 2045). Alternative 3 would likely facilitate the same number of projects through 2045, resulting in the same environmental impacts through 2045 compared to the Project. However, Alternative 3 would more likely facilitate a greater number of projects in the 2035 to 2045 period than the Project, worsening environmental impacts during the 2035 to 2045 timeframe as compared to the Project. Consequently, Alternative 3 would delay the realization of its environmental impacts but would not lessen or eliminate these adverse environmental impacts entirely and could increase or create certain environmental impacts as compared to the Project.

Alternative 3 would result in similar but lesser impacts on the following resource areas: aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, transportation, and wildfire. However, Alternative 3 would also result in greater impacts than the Project in resource areas including energy, GHG emissions, air quality, and utilities and service systems. Alternative 3 would result in greater energy impacts than the Project because Alternative 3 would facilitate fewer projects that would reduce Countywide energy use compared to the Project, resulting in greater energy consumption than the Project. Alternative 3 would result in greater GHG emissions impacts than the Project because Alternative 3 would not reduce Countywide GHG emissions as compared to the Project through 2030 and 2035, producing much greater GHG emissions than the Project. Additionally, implementation of Alternative 3 would result in greater air quality impacts than the Project for operational impacts because Alternative 3 would facilitate fewer projects through 2030 and 2035, resulting in much greater emissions of criteria pollutants and TACs throughout the county for these years, resulting in greater human health risks as compared to the Project. Finally, Alternative 3 would result in greater utilities and service systems because projects facilitated by Alternative 3 would lead to increased use of recycled and gray water systems compared to the Project, increasing the amount of wastewater requiring treatment by wastewater treatment providers, and thus, would require the development of new water recycling and direct potable reuse facilities.

Importantly, as discussed above, Alternative 3 is unable to meet Project Objectives 1, 2, and 5. Alternative 3 would not meet Project Objective 1 (identify detailed programs, actions, and performance goals to achieve the climate policies of the General Plan) because implementation would result in an inconsistency with the County's General Plan Policy AQ 3.9 ("Ensure the availability of zero-carbon electricity to serve unincorporated Los Angeles County."). Alternative 3 would not meet Project Objective 2 (identify GHG emissions reduction targets tailored to the unincorporated County that closely align with state and County climate goals) because implementation of Alternative 3 does not align with County or state goals, including AB 1279, which establishes the state policy to achieve net zero GHG emissions as soon as possible but no later than 2045 and to achieve and maintain net negative GHG emissions thereafter. AB 1279 also mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels. Alternative 3 would also not meet Project Objective 5 (demonstrate a level of GHG emissions below which the County would have less than cumulatively considerable GHG impacts for future environmental review projects and provide CEQA streamlining for development projects via the Checklist) because Alternative 3's lower targets would not meet CEQA standards for a level of GHG emissions that would not be cumulatively considerable for future environmental review of projects, given that Alternative 3's targets do not align with state goals and consistency with state goals is the criteria for whether the targets represent a level of GHG emissions that would have a less than cumulatively considerable GHG impact for future environmental review projects.

Alternative 3 would likely exclude several recommended priority local GHG emissions reduction strategies that the 2022 Scoping Plan recommends be incorporated "to the extent appropriate to ensure alignment with State climate goals." Alternative 3 would likely not align with the state's GHG emissions reduction goals if it excluded 2022 Scoping Plan priority local GHG emissions reduction strategies, making Alternative 3 inconsistent with Project Objectives 1, 2, and 5.

Finding: Based on the analysis for each alternative above, Alternative 3 is considered the environmentally superior alternative to the Project in relation to some short-term environmental impacts because Alternative 3's reduced performance objectives would facilitate fewer projects for years 2030 through 2035. However, Alternative 3 would likely facilitate the same number of projects through 2045, resulting in the same environmental impacts through 2045 compared to the Project, and would more likely facilitate a greater number of projects in the 2035 to 2045 period than the Project. Consequently, Alternative 3 would delay the realization of its environmental impacts but would not lessen or eliminate these adverse environmental impacts and would likely worsen environmental impacts during the 2035 to 2045 timeframe compared to the Project. The Board rejects Alternative 3, the Environmentally Superior Alternative, as undesirable from a policy standpoint and infeasible on the basis of environmental considerations, as Alternative 3 would result in greater adverse environmental impacts associated with energy, GHG emissions, air quality, and utilities and service systems. Alternative 3 would not meet Project Objectives 1, 2, and 5 and the Board finds that Alternative 3's failure to meet these Project Objectives makes this alternative undesirable from a policy standpoint and rejects Alternative 3 as infeasible. Specifically, Alternative 3 would not align with County and state GHG emissions reduction goals, including the County's General Plan Policy AQ 3.9, AB 1279, or CARB's 2022 Scoping Plan. This failure substantially impairs the ability of Alternative 3 to achieve the basic Project Objectives, including Objectives 1, 2, and 5.

VIII. FINDINGS CONCERNING CERTAIN RECOMMENDED MITIGATION MEASURES NOT INCLUDED IN MMRP

During the PEIR's public review process, commenters recommended certain mitigation measures. With respect to those specific mitigation measures suggested in public comments, which were not incorporated into the Final PEIR and are not included in the Mitigation Monitoring and Reporting Plan (MMRP), the Board finds as follows:

Programmatic mitigation measures for utility-scale solar projects to address dust control, water supply, wildlife impacts, heat islands, and aesthetic impacts. To reduce project impacts, one commenter generally recommended implementation of unspecified programmatic mitigation measures to address potential impacts from utility-scale solar projects (Recirculated Draft PEIR Comment O2-17 and O2-18). The PEIR identified reasonable, feasible programmatic mitigation measures to avoid or reduce significant environmental impacts, including cumulative environmental impacts, of future projects implementing 2045 CAP measures and actions, including utility-scale solar projects. The Board hereby rejects the proposed mitigation on the basis that other mitigation has been identified in the PEIR and included in the MMRP to reduce impacts to less than significant levels, because the proposed, unspecified measure would not be effective in mitigating a significant Project impact or provide substantial additional mitigation beyond the measures identified in the PEIR and included in the MMRP, and for the reasons set forth in Response to Comment O2-17 and O2-18.

Programmatic mitigation measures for utility-scale energy storage projects to address potential impacts. To reduce project impacts, one commenter generally recommended implementation of unspecified programmatic mitigation measures to address potential impacts from utility-scale energy storage projects (Recirculated Draft PEIR Comment O2-24 and O2-25). The PEIR identified reasonable, feasible programmatic mitigation measures to avoid or reduce significant environmental impacts, including cumulative environmental impacts, of future projects implementing 2045 CAP measures and actions, including utility-scale battery projects. The Board hereby rejects the proposed, unspecified mitigation on the basis that other mitigation has been identified in the PEIR and included in the MMRP to reduce impacts to less than significant levels, because the proposed, unspecified measure would not be effective in mitigating a significant Project impact or provide substantial additional mitigation beyond the measures identified in the PEIR and included in the MMRP, and for the reasons set forth in Response to Comment O2-24 and O2-25.

Limiting application of Action ES3.6 (streamlining and prioritizing permitting for solar and battery storage projects) to only distributed battery storage projects. To reduce Project impacts on unidentified "risks", one commenter suggested a mitigation measure limiting application of 2045 CAP Action ES3.6 to only distributed battery storage projects "because utility scale storage projects pose substantial risks...." (See Recirculated Draft PEIR Comment O2-26.) The PEIR identified mitigation measures to reduce hazards and hazardous materials impacts to a less than significant level. The Board hereby rejects the proposed mitigation on the basis that other mitigation has been identified in the PEIR and included in the MMRP to reduce this impact to a less than significant level, because the proposed measure would not be effective in mitigating a significant Project impact or provide substantial additional mitigation beyond the measures identified in the PEIR and included in the MMRP, and for the reasons set forth in Response to Comment O2-26.

Locating utility scale storage projects outside of Very High Fire Hazard Severity Zones and remote areas where there are no residents. To reduce Project impacts, one commenter recommended mitigation for

wildfire risk posed by utility scale storage facilities that might be caused by the projects facilitating 2045 CAP strategies, measures, and actions. (See Recirculated Draft PEIR Comment O2-27.) The EIR identified mitigation measures to reduce impacts on wildfire to a less than significant level. The Board hereby rejects the proposed mitigation on the basis that other mitigation has been identified in the PEIR and included in the MMRP to reduce this impact to a less than significant level, because the proposed measure would not be effective in mitigating a significant Project impact or provide substantial additional mitigation beyond the measures identified in the PEIR and included in the MMRP, and for the reasons set forth in Response to Comment O2-27.

IX. ADDITIONAL ENVIRONMENTAL FINDINGS

a. Findings Regarding EIR Recirculation

i. Legal Requirements Regarding Recirculation

A lead agency is required to recirculate a Draft EIR for additional public review when “significant” new information is added to the EIR after the initial public review, according to CEQA Guidelines section 15088.5(a). New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such effect, including a feasible project alternative that the project proponents have declined to implement. “Significant new information” requiring recirculation includes, for example, a disclosure showing that:

- A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project but the project’s proponents decline to adopt it.
- The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Recirculation is not required where the new information added to the EIR merely clarifies, amplifies, or makes insignificant modifications to an adequate EIR, according to CEQA Guidelines section 15088.5(b).

ii. Recirculated Draft PEIR Comments, Responses, and Revisions Do Not Trigger Draft PEIR Recirculation

No significant new information has been added to the EIR in Recirculated Draft PEIR comments, responses to Recirculated Draft PEIR comments, and Recirculated Draft PEIR revisions made in the Final PEIR that would trigger recirculation of the Recirculated Draft PEIR under CEQA Guidelines section 15088.5(a) because:

- They did not disclose a new significant environmental impact that would result from the Project or from a new mitigation measure proposed to be implemented.
- They did not disclose a substantial increase in the severity of an environmental impact that would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- They did not disclose a feasible Project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the adverse environmental impacts of the Project.

- They did not otherwise result in major revisions to the Recirculated Draft PEIR that precluded meaningful public review and comment on a substantial, adverse project impact environment, a feasible mitigation measure, or an alternative not proposed or implemented.

Instead, only minor changes were made to the Recirculated Draft PEIR in response to public comments and to amplify, clarify, and update certain information. The changes and new information provided in the Final PEIR include:

- Clarifications to the Recirculated Draft PEIR analysis in response to comments received;
- Minor revisions to mitigation measures in response to comments received; and
- Corrections of typographical and editorial errors.

This new information does not include identification of new or substantially increased significant impacts associated with the Project, alternatives, or mitigation measures that are considerably different from those previously analyzed that would clearly lessen the Project's significant impacts.

The Board finds that none of the revisions to the Recirculated Draft PEIR made by, or discussion included in, the Final PEIR involves "significant new information" triggering recirculation because the changes do not result in any new significant environmental effects, substantial increase in the severity of previously identified significant effects, or feasible project alternatives that would clearly lessen the environmental effects of the project. The Board further finds that incorporating the information and corrections does not deprive the public of a meaningful opportunity to comment on the Project or its effects, and that no information has been added to the EIR that would warrant recirculation pursuant to Public Resources Code section 21092.1 or CEQA Guidelines section 15088.5. This finding is based upon all the information presented in the Final PEIR and the Record of Proceedings.

b. Findings Regarding Disagreement Among Experts

It is possible that during the public review process experts may disagree with assumptions, analysis, conclusions, and other materials presented in the Recirculated Draft PEIR. The Final PEIR has summarized the conflicting opinions, where such information is known in advance, including response to comment O14-21. All such information will be considered by the decision-makers during the public review process. However, to be adequate under CEQA, the Recirculated Draft PEIR need not resolve all such disagreements.

In rendering a decision on a project where there is a disagreement among experts, the decision makers may give more weight to the views of one expert than to those of another, and need not resolve a dispute among experts. Disagreement among experts does not make an EIR inadequate. (CEQA Guidelines, § 15151).

The Board has considered the comments and objections received, but need not follow said comments or objections. The Board makes its decisions based on the evidence that is contained within the administrative record provided by the Final PEIR, its supporting information and analysis, and the associated public review process. The Board finds that the Final PEIR accurately reflects the 2045 CAP's impacts on environmental resources and is supported by the County's experts.

c. Section 21082.1(c)(3) Findings

Pursuant to Public Resources Code section 21082.1(c)(3), the Board hereby finds that the Final PEIR reflects that independent judgment of the lead agency.

X. MITIGATION MONITORING AND REPORTING PLAN

The Board hereby finds that a Mitigation Monitoring and Reporting Program has been prepared for the EIR and has been adopted concurrently with these Findings. (Pub. Resources Code, § 21081.6(a)(1).) The County will use the MMRP to track implementation of EIR mitigation measures adopted in these Findings. The County will also monitor the County's implementation of 2045 CAP policies relied upon to reduce environmental impacts.

STATEMENT OF OVERRIDING CONSIDERATIONS
CEQA Guidelines Section 15093
For:
LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN
Final Program Environmental Impact Report SCH No. 2021120568

Lead Agency:
County of Los Angeles Department of Regional Planning

Pursuant to Public Resources Code section 21081(b) and the California Environmental Quality Act (CEQA) Guidelines section 15093(a) and (b), the County is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. For a project that has significant impacts that cannot feasibly be avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a Statement of Overriding Considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (CEQA Guidelines, §§ 15093, 15043(b); Pub. Resources Code, § 21081(b).)

The Los Angeles County 2045 Climate Action Plan (2045 CAP, or Project) will result in environmental effects, which, although mitigated to the extent feasible by the implementation of mitigation measures required for the Project, will remain significant and unavoidable, as discussed in the Final Program Environmental Impact Report (PEIR) and CEQA Findings of Fact. These impacts are summarized below and constitute those impacts for which this Statement of Overriding Considerations is made. The significant and unavoidable impacts of the Project are as follows:

- Aesthetics (Impacts 3.2-1, 3.2-2, 3.2-3, 3.2-4, 3.2-6, 3.2-7, 3.2-8, 3.2-9)
- Agriculture and Forestry (Impacts 3.3-1, 3.3-2, 3.3-5, 3.3-7, 3.3-8, 3.3-11)
- Air Quality (Impacts 3.4-1, 3.4-2, 3.4-3a, 3.4-5, 3.4-6, 3.4-7 [local Air Pollutant and TAC emissions])
- Biological Resources (Impacts 3.5-2, 3.5-3, 3.5-5, 3.5-7, 3.5-8, 3.5-10, 3.5-11)
- Noise and Vibration (All impacts)
- Utilities and Service Systems (Impact 3.17-1, 3.17-3, 3.17-5, 3.17-7)

Finding:

The County of Los Angeles Board of Supervisors (Board) finds and determines in approving the Project that the Final PEIR has considered the identified means of lessening or avoiding the Project's significant effects and that to the extent any significant direct or indirect environmental effects, including cumulative project impacts, remain unavoidable or not mitigated to below a level of significance after mitigation, such impacts are at an acceptable level in light of the social, legal, economic, environmental, technological and other project benefits discussed below, and such benefits override, outweigh, and make "acceptable" any such remaining environmental impacts of the project. (CEQA Guidelines, § 15092(b).)

The following benefits and considerations, taken together or individually, outweigh such significant and unavoidable adverse environmental impacts. All of these benefits and considerations are based on the facts set forth in the Findings, the Final PEIR (including, without limitation, the response to comments and appendices and attachments thereto), and the record of proceedings for the Project. The Board determines that the evidence in the record constitutes substantial evidence to support the determinations made in this Statement of Overriding Considerations, that the facts stated in this document and in the Findings are supported by substantial evidence in the record, including testimony received at the public hearing, the staff presentations, staff reports and all materials in the project files. The Board also determines that to the extent other evidence was presented that is contrary to the determinations made herein or in the Findings, such evidence was nevertheless considered, weighed and determined to be either lacking in credibility or insufficient in weight to detract from the determinations made herein or in the Findings such that the Board reached these determinations after due consideration of all evidence presented to it. Each of these benefits and considerations is a separate and independent basis that justifies approval of the Project, so that if a court were to set aside the determination that any particular benefit or consideration will occur and justifies project approval, this Board determines that it would stand by its determination that the remaining benefit(s) or consideration(s) is or are sufficient to warrant project approval.

Facts in Support of Statement of Overriding Considerations:

In determining whether to approve the 2045 CAP, the County has weighed the economic, legal, social, technological, environmental, and other benefits of the Project against its unavoidable significant environmental impacts. The County finds that the adoption and implementation of the 2045 CAP would have substantial overriding benefits, supported by substantial evidence in the PEIR and elsewhere in the administrative record, warranting approval of the Project and the Board of Supervisors determines that the adverse environmental impacts of the Project are “acceptable” if any one of these benefits will be realized. The Project will provide benefits to Los Angeles County and the region as follows:

1. Improves Regional Air Quality

Degraded air quality can aggravate a wide range of health problems, including asthma and other debilitating and costly respiratory and cardiovascular diseases. The Project would improve air quality in the region, which in turn reduces these health impacts related to air quality. The Project also offers many co-benefits to public health, including reducing chronic disease, lowering obesity levels, reducing respiratory diseases, and improving mental health.

2. Increases Community Resiliency

The Project facilitates community resiliency by reducing the impacts of climate change such as extreme heat, drought, wildfire, pollution, extreme storms and wind, invasive species, and vector-borne illnesses.

3. Promotes Green Jobs

The Project facilitates the development of a wide range of green jobs and provides meaningful employment opportunities across job sectors.

4. Lowers Energy Costs

The Project promotes lower energy and transportation costs by encouraging the use of cost-efficient renewable resources.

5. Fights Drought

The Project promotes water conservation which lessens the dependence on imported water sources, which is especially beneficial economically during drought years.

6. Improves Active Transportation

With an emphasis on active transportation and reducing vehicle emissions, the Project promotes safer walking and cycling throughout the region.

7. Improves CEQA Streamlining

Per section 15183.5 of the CEQA Guidelines, this Project provides CEQA streamlining benefits for future development projects. This simplifies the GHG emissions analyses necessary to comply with CEQA in the future.

8. Achieves Statewide Climate Goals

The Project helps the County meet and/or exceed Statewide climate goals.

9. Encourages Green Investment

The Project positions the economy for growth by encouraging green investment and infrastructure spending. Additionally, the Project improves the opportunity for access to statewide climate grants and other funding sources.

10. Promotes Environmental and Social Justice

The Project promotes environmental and social justice by focusing efforts and improvements within disadvantaged communities through infrastructure investment, creation of greenspaces, active and accessible transportation, and building decarbonization.

Conclusion

CEQA requires a public agency to balance the benefits of a proposed project against its significant and unavoidable adverse impacts in determining whether to approve the project. As discussed more fully above, the proposed Project would result in significant and unavoidable project-level and/or cumulative impacts to on aesthetics, agricultural and forestry resources, air quality, biological resources, noise and vibration, and utilities and service systems, which, although mitigated to the extent feasible by the implementation of mitigation measures required for the Project, will remain unavoidable significant adverse impacts. This Board of Supervisors finds that such impacts are at an acceptable level in light of each of the Project benefits described above, which make “acceptable” any significant environmental impacts of the Project.

MITIGATION MONITORING AND REPORTING PROGRAM

The California Environmental Quality Act (CEQA) requires a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval and development. (Pub. Resources Code, § 21081.6.) The County of Los Angeles (County) has prepared the Recirculated Draft Programmatic Environmental Impact Report (Recirculated Draft PEIR) to address the environmental impacts of the Revised Draft 2045 Climate Action Plan (2045 CAP or Project) and where appropriate, the Recirculated Draft PEIR recommends mitigation measures that would avoid or substantially lessen the significant environmental impacts associated with the Project.

This MMRP has been developed for the Project in compliance with Public Resources Code section 21081.6 and CEQA Guidelines section 15097. The mitigation measures in Table 1 are coded by alphanumeric identification consistent with the Recirculated Draft PEIR. The following items are identified for each mitigation measure:

- **Mitigation Method.** This section of the MMRP lists how the mitigation measure would be implemented. The numbering in this column corresponds to the project stage numbers listed in the Timing of Implementation column.
- **Timing of Implementation.** This section of the MMRP lists the stage of the project during which the mitigation measure would be implemented and during the stage that the monitoring and reporting would be conducted.
- **Implementation Responsibility.** This section of the MMRP indicates who is responsible for implementing the mitigation measure (i.e., the “implementing party”).
- **Monitoring and Reporting Agency.** This section lists the agency that is responsible for ensuring that the mitigation measure is implemented and which agency will receive reports on mitigation implementation.
- **Verification of Compliance.** This section of the MMRP provides a location for the implementing party and/or monitoring and reporting agency to make notes and to record their initials and the compliance date for each mitigation measure.

The County must adopt this MMRP, or an equally effective program, if it approves the Project with the mitigation measures that were adopted or made conditions of Project approval

**TABLE 1
2045 CAP MITIGATION MONITORING AND REPORTING PROGRAM**

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
|---|---|--|--|---------------------------------|----------------------------|------|---------|
| | | | | | Initials | Date | Remarks |
| Aesthetics | | | | | | | |
| <p>Mitigation Measure 3.2-1: Alternative Design. Projects facilitated by the 2045 CAP that would obstruct views from publicly-accessible vantage points as defined in this analysis (such as from a vista point or a regional riding, hiking, or multiuse trail) shall identify and protect public views and significant landscape features or landforms visible from such views, and shall implement project-specific mitigation as applicable. If it is determined that a project would obstruct scenic views, the County shall consider alternative designs that seek to avoid and/or minimize these impacts. Project-specific design measures may include reduction in height of improvements or width of improvements to reduce obstruction of views or other adverse visual effects, or relocation of improvements to reduce obstruction of views. The County shall consider taking the following (or equivalent) actions: i) Require that the scale and massing of new development provide appropriate transitions in structure height and bulk that are sensitive to the physical and visual character of the affected area; ii) ensure structure heights are stepped back to maintain appropriate transitions in scale and to protect scenic views; and iii) avoid siting electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines where they could obstruct views from public vantage points, such as a regional riding, hiking, or multiuse trail, along scenic roadways and routes, or scenic vista points.</p> | <p>1-2) Review of project plans and specifications to ensure project includes specific design measures to protect public views.</p> | <p>1) During project-specific environmental review. 2) Prior to approval of future projects construction. 3) Monitoring and reporting conducted during project review and at time of permit approval.</p> | <p>Applicant/County of Los Angeles</p> | <p>County of Los Angeles</p> | | | |
| <p>Mitigation Measure 3.2-2: Visual Screening and Other View Protection Measures. To partially screen views of projects facilitated by 2045 CAP measures and actions in locations where they would be visible from publicly accessible vantage points (e.g., scenic vistas, trails, scenic roadways and routes) and affect visual character or quality, if feasible and effective, the County shall (and other implementing state or local agencies can and should) require the construction of a berm, vegetative screening, or other form of visual barrier of sufficient height to provide a visual transition from ground level to surrounding hills or ridgelines. The color of proposed building facades and roofs shall be designed to visually blend in and minimize the potential for visual contrast between the project elements and their natural landscape surroundings. Bright or very light colors (including white) shall be avoided. Re-contouring and revegetation of temporarily disturbed, graded areas shall be completed to provide a natural appearing landform upon completion of construction.</p> | <p>1-2) Review of project plans and specifications to ensure project design includes a visual barrier, building materials and color schemes that match the surrounding landscape. 3) Field verification to ensure revegetation and recontouring is implemented.</p> | <p>1) During project specific environmental review. 2) Prior to approval of future projects construction. 3) During future project construction. 4) Monitoring and reporting conducted during project review and construction.</p> | <p>County of Los Angeles</p> | <p>County of Los Angeles</p> | | | |
| <p>Mitigation Measure 3.2-3: Reduce Light and Glare Impacts. To reduce significant light and glare impacts of projects facilitated by the 2045 CAP, the County shall require the following measures to be incorporated: a) All lighting shall be focused toward the site and outdoor lighting shall be directed downward; b) The design of exterior light fixtures shall incorporate shielding to prevent glare and offsite light spillage; c) Outdoor lighting shall include non-glare fixtures; and d) Structure design shall include exterior finishes and materials that would be minimally reflective or sited or oriented in such a way as to direct glare away from sensitive receptors.</p> | <p>1) Ensure project design plan includes lighting plan consistent with mitigation measure 3.2.3 requirements. 2) Ensure that lighting requirements are included in construction contract documents.</p> | <p>1) During project specific environmental review. 2) Prior to approval of future projects construction. 3) Monitoring and reporting conducted during project review.</p> | <p>County of Los Angeles</p> | <p>County of Los Angeles</p> | | | |
| Agriculture and Forestry | | | | | | | |
| <p>Mitigation Measure 3.3-1: Avoidance of Actively Farmed Lands When Siting Utility-Scale Solar and Energy Storage Development. To reduce the impacts of converting Farmland in physical use for agriculture to nonagricultural uses when a utility-scale solar development is proposed on actively farmed land, the County shall require renewable energy project applicants to demonstrate their consideration of alternate sites consisting of formerly developed and/or contaminated lands such as landfills and mine sites located within one mile of the proposed project site when such development is consistent with General Plan and zoning requirements.</p> | <p>1-2) Demonstrate consideration of alternate sites of formerly developed and/or contaminated lands within one mile of the proposed project site.</p> | <p>1) During project specific environmental review. 2) Prior to approval of future projects construction. 3) Monitoring and reporting conducted during project review.</p> | <p>County of Los Angeles</p> | <p>County of Los Angeles</p> | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
|--|--|---|---|---------------------------------|----------------------------|------|---------|
| | | | | | Initials | Date | Remarks |
| Air Quality | | | | | | | |
| <p>Mitigation Measure 3.4-1: Construction Emissions. If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the applicable air quality management district (AQMD) adopted thresholds of significance, the lead agency shall require applicants for new projects facilitated by the 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:</p> <ul style="list-style-type: none"> • When wind gusts exceed 25 miles per hour, cease all active construction activities or follow the applicable guidelines outlined in Table 3 of SCAQMD Rule 403 or Sections (C)(10) through (C)(14) of AVAQMD Rule 403. • Use construction equipment rated by the U.S. Environmental Protection Agency (USEPA) as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower, as commercially available. • Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards. • Limit nonessential idling of construction equipment to no more than five consecutive minutes. • Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. • Water all active construction areas at least three times daily or four times daily if needed to control dust emissions. Watering should be sufficient to prevent airborne visible dust from leaving the site. Where local water supplies are not available in sufficient quantities within unincorporated areas of the County, use nontoxic chemical soil stabilizers or dust suppressants to control dust emissions in sufficient amounts to prevent airborne visible dust from leaving the site. • Increase watering frequency and/or application frequency of nontoxic chemical soil stabilizers or dust suppressants whenever wind speeds exceed 25 miles per hour. Reclaimed water shall be used whenever possible. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). • Pave, apply water three times daily or as often as necessary to control dust, or where local water supplies are not available in sufficient quantities within unincorporated areas of the County, apply (nontoxic) soil stabilizers or dust suppressants on all unpaved access roads, parking areas, and staging areas at construction sites. • Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust. • Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Project site, or as often as needed, to keep streets free of visible soil material. • Where local water supplies are not available in sufficient quantities within unincorporated areas of Los Angeles County, hydroseed or apply nontoxic chemical soil stabilizers or dust suppressants to inactive construction areas. • Enclose, cover, water three times daily, or apply nontoxic chemical soil stabilizers or dust suppressants to exposed stockpiles (dirt, sand, etc.). • In areas with existing vegetation, install the facility components with minimal disturbance. Take all necessary precautions to not use vehicles or machinery for grading or alter the existing grade in these areas. | <p>1-2) Review of project plans and specifications to ensure that all measures included.</p> <p>3) Construction contractor/manager shall submit signed letter verifying compliance. Field verification to ensure measures are implemented.</p> | <p>1) During project specific environmental review.</p> <p>2) Prior to approval of future projects construction.</p> <p>3) During future project construction.</p> <hr/> <p>4) Monitoring and reporting conducted during project review and construction.</p> | <p>Applicant</p> <p>County of Los Angeles</p> | <p>County of Los Angeles</p> | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
|--|--|---|-------------------------------|---------------------------------|----------------------------|------|---------|
| | | | | | Initials | Date | Remarks |
| <ul style="list-style-type: none"> Design project facilities to limit ground disturbance or grading to only the access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. Ensure that the facilities comply with all applicable grading standards. Site utility-scale renewable energy projects in a way that minimizes site disturbance, such as grading, brush clearance, and other forms of earthwork. In areas with existing vegetation, install facility components with minimal disturbance. Take all necessary precautions to avoid using vehicles or machinery for grading or altering the existing grade in these areas. Establish and maintain a landscaped buffer: <ul style="list-style-type: none"> Maintain a landscaped area at least 10 feet deep along any facility perimeter fencing and between such fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. Establish the landscaped area in such manner that adequate corner sight distance is maintained from all access roads to the public right-of-way to the satisfaction of the County of Los Angeles Department of Public Works. Maintain the landscaped area throughout the life of the facility | | | | | | | |
| <p>Mitigation Measure 3.4-2: Operational Fugitive Dust Emissions. If, during subsequent project-level environmental review, operational fugitive dust emissions are determined to have the potential to be significant, the lead agency shall require applicants for new projects facilitated by the 2045 CAP measures and actions to incorporate mitigation measures to avoid or reduce air pollutant emissions during operational activities. Mitigation measures that may be identified during the environmental review include, but are not limited to, the following:</p> <ul style="list-style-type: none"> Unpaved main access roads for operational vehicle trips shall be paved or effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air Resources Board-approved soil stabilizers, and that shall not increase any other environmental impacts, including loss of vegetation. All other unpaved roads shall be stabilized using water or soil stabilizers so that vehicle travel on these roads does not cause visible dust plumes. Gravel pads, grizzly strips, or other material track-out control methods approved for use by the local AQMD shall be installed where vehicles enter or exit unpaved roads onto paved roadways. Traffic speeds on unpaved roads shall be limited to no more than 10 miles per hour, except that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. Traffic speed signs shall be displayed prominently at all site entrances and at egress point(s) from the central maintenance complex. Where acceptable to the local and County fire departments, all unpaved, non-road surfaces that may potentially be disturbed shall be covered with a minimum of 3 inches of mulch. Where acceptable to the local and County fire departments, vegetation shall be maintained at 6 inches height. All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least 6 inches of freeboard (minimum vertical distance between top of the load and top of the trailer) in accordance with California Vehicle Code Section 23114. A fugitive dust control plan that includes a dust plume response plan shall be prepared for review and approval by applicable agencies before any earthwork activities. Where acceptable to the local and County fire departments, weed control shall be accomplished by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. | <p>1-2) Review of project plans and specifications to ensure that all measures are included.</p> <p>3) Construction contractor/manager shall submit a signed letter verifying compliance. Field verification to ensure measures are implemented.</p> | <p>1) During future project-level environmental review.</p> <p>2) Prior to approval of future projects construction.</p> <p>3) During future project construction.</p> <hr/> <p>4) Monitoring and reporting conducted during project review and construction.</p> | County of Los Angeles | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
|--|--|---|-------------------------------|---------------------------------|----------------------------|------|---------|
| | | | | | Initials | Date | Remarks |
| <ul style="list-style-type: none"> Existing vegetation may be mowed, but removal of existing vegetation root systems shall be prohibited, except where necessary for construction of access roads, substations and related underground transmission lines, tanks, basins, inverter pads, or other areas required by the County. Continuous particulate monitors shall be installed at the discretion of the lead agency. | | | | | | | |
| <p>Mitigation Measure 3.4-3: Architectural Coating VOC Emissions. If, during subsequent project-level environmental review, it is determined that VOC emissions impacts may be significant, the lead agency shall require Super-Compliant VOC-content architectural coatings (0 grams per liter to less than 10 grams per liter VOC) to be used during construction and operational application of paints and other architectural coatings to reduce ozone precursors. If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during days when the USEPA, CARB, or SCAQMD has forecasted the Air Quality Index for ozone to be greater than 100 for the project location.</p> | <p>1-2) Review of project plans and specifications to ensure that project design includes Super-Compliant VOC-content architectural coatings, and timeframe limits.</p> <p>3) Construction contractor/manager shall submit letter verifying compliance. Field verification to ensure measures are implemented.</p> | <p>1) During future project-level environmental review.</p> <p>2) Prior to approval of future projects construction.</p> <p>3) During future project construction.</p> <p>4) Monitoring and reporting conducted during project review and construction.</p> | County of Los Angeles | County of Los Angeles | | | |
| <p>Mitigation Measure 3.4-4: Enhanced Energy Conservation. If, during subsequent project-level environmental review, it is determined that operational emissions impacts are significant, the lead agency shall require the project to incorporate enhanced energy conservation measures beyond those required by federal or state law, County ordinance, and the 2045 CAP measures and actions to reduce energy-related emissions. Enhanced energy conservation measures shall include one or more of the following as applicable:</p> <ul style="list-style-type: none"> Install Energy Star rated heating, cooling, lighting, and appliances. Use of heating, ventilation, and air conditioning equipment with a Seasonal Energy Efficiency Ratio of 12 or higher. Installation of water heaters with an energy factor of 0.92 or higher. Install solar water heaters or tankless water heaters. Use passive solar cooling/heating. Reduce building natural gas infrastructure, use renewable natural gas in place of fossil fuel-derived natural gas, or eliminate building natural gas infrastructure and fully electrify buildings. | <p>1-3) Review of project plans and specifications to ensure that project design includes enhanced energy conservation measures.</p> <p>4) Field verification to ensure measures are implemented.</p> | <p>1) During project-level environmental review.</p> <p>2) Prior to approval of future projects construction.</p> <p>3) Prior to issuance of future project building permits.</p> <p>4) During future project construction.</p> <p>5) Monitoring and reporting conducted during project review and construction</p> | County of Los Angeles | County of Los Angeles | | | |
| <p>Mitigation Measure 3.4-5: Low-VOC/Green Cleaning Product Educational Program. If, during subsequent project-level environmental review, it is determined that operational emissions impacts may be significant, the lead agency shall require the project applicant or developer to provide tenants and residents with information about low-VOC/green cleaning products and paints, including materials educating how to identify low-VOC cleaners and products.</p> | <p>1-3) Review of project plans and specifications to ensure that project applicant includes relevant information.</p> | <p>1) During future project-level environmental review.</p> <p>2) Prior to approval of future projects.</p> <p>3) Prior to issuance of future project building permits.</p> <p>4) Monitoring and reporting conducted during project review.</p> | County of Los Angeles | County of Los Angeles | | | |
| <p>Mitigation Measure 3.4-6: Stationary Sources. Applicants for new or modified stationary sources facilitated by the 2045 CAP measures and actions that: (1) have the potential to generate 40 or more diesel trucks per day and (2) are located within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the County Department of Regional Planning prior to future discretionary project approval. The HRA shall be prepared in accordance with</p> | <p>1) Applicant shall submit HRA to the County.</p> <p>2) Review of plans and specifications to ensure that project design includes T-BACTs.</p> | <p>1) Prior to approval of future projects.</p> <p>2) Prior to approval of future projects construction.</p> <p>3) Monitoring and reporting conducted during project review</p> | Applicant | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
|--|---|--|-------------------------------|---------------------------------|----------------------------|------|---------|
| | | | | | Initials | Date | Remarks |
| <p>policies and procedures of the state Office of Environmental Health Hazard Assessment and the applicable air quality management district. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), particulate matter concentrations would exceed 2.5 µg/m3, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project.</p> | | | | | | | |
| <p>Mitigation Measure 3.4-7: Health Risk Assessment.</p> <p>Applicants shall submit a health risk assessment (HRA) to the County prior to future discretionary project approval for sensitive land uses facilitated by the 2045 CAP measures and actions within the following distances as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, from these facilities or similar types of facilities that produce TAC emissions:</p> <ul style="list-style-type: none"> • Industrial facilities within 1,000 feet • Distribution centers (40 or more trucks per day) within 1,000 feet • Major transportation projects (50,000 or more vehicles per day) within 1,000 feet • Gasoline dispensing facilities within 300 feet <p>Applicants proposing projects facilitated by the 2045 CAP measures and actions which produce TAC emissions may be required to submit an HRA based on local rules and regulations, and/or at the discretion of the lead agency.</p> <p>The HRA shall be prepared in accordance with policies and procedures of the applicable Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:</p> <ul style="list-style-type: none"> • Air intakes located away from high-volume roadways and/or truck loading zones, unless it can be demonstrated to County Department of Regional Planning that there are operational limitations. • Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters. <p>Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the County and shall be verified by County Department of Regional Planning.</p> | <p>1) Applicant shall submit HRA to the County.</p> <p>2) Review of plans and specifications to ensure that project design includes mitigation measures identified in the HRA.</p> <p>3) Ensure mitigation measures identified in the HRA are identified as mitigation measures in the environmental document and/or incorporated into the site development plan.</p> | <p>1) Prior to approval of future projects.</p> <p>2) Prior to approval of future projects construction.</p> <p>3) During future project-level environmental review.</p> <p>4) Monitoring and reporting conducted during project review.</p> | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.4-8: Valley Fever.</p> <ul style="list-style-type: none"> • Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations. • Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems. • Require crews to work upwind from excavation sites where possible. • Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. • During rough grading and construction, ensure that the access way into the project site from adjoining paved roadways is paved or treated with environmentally safe dust control agents. | <p>1-2) Review of plans and specifications to ensure that project design includes measures.</p> <p>3) Construction contractor/manager shall submit a letter verifying compliance. Field verification to ensure measures are implemented.</p> | <p>1) During future project-level environmental review.</p> <p>2) Prior to approval of future projects construction.</p> <p>3) During future project construction activities that would involve ground disturbance.</p> <p>4) Monitoring and reporting conducted during project review and construction.</p> | Applicant | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
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| Biological Resources | | | | | | | |
| <p>BIO-1 Biological resources shall be analyzed on a project-specific level by a qualified biological consultant. A general survey shall be conducted to characterize the project site, and focused surveys should be conducted as necessary to determine the presence/absence of special-status species (e.g., focused sensitive plant or wildlife surveys). A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze project-specific impacts to biological resources, and propose appropriate mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as an analysis of those species with potential to occur onsite).^a</p> <p>^a - This mitigation measures was previously adopted in 2015 as part of the Los Angeles County General Plan Update.</p> | <p>1) Survey conducted by a qualified biologist.</p> <p>2) Submit biological resources assessment report (including general site survey and focused surveys, as necessary).</p> | <p>1) During future project-level environmental review.</p> <p>2) Prior to approval of future projects.</p> <p>3) Monitoring and reporting conducted during project review.</p> | Applicant | County of Los Angeles | | | |
| <p>BIO-2 If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as mentioned in Mitigation Measure BIO-1) shall include mitigation measures requiring preconstruction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite habitat areas. Relocations into areas of appropriate restored habitat would have the best chance of replacing/incrementing populations that are lost due to habitat converted to development. Relocation to restored habitat areas should be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume.^a</p> <p>^a - This mitigation measures was previously adopted in 2015 as part of the Los Angeles County General Plan Update.</p> | <p>1-2) Submit pre-construction survey</p> <p>3) Obtain permit(s) as necessary.</p> <p>4) Construction monitoring by qualified biologist.</p> <p>5) Submit construction monitoring documentation.</p> | <p>1) During future project-level environmental review</p> <p>2) Prior to approval of future projects construction.</p> <p>3) Prior to issuance of grading permits</p> <p>4) During future project construction activities that would involve ground disturbance</p> <p>5) Monitoring and reporting conducted during project review and construction</p> | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.5-1: The County shall require biological resources to be analyzed on a project-specific level by a qualified biological consultant. Prior to or during the preparation of project-level environmental documents, and prior to the start of construction activities, a biological resources assessment shall be conducted to characterize the project site. Suitable buffer areas surrounding the project site shall be included where native habitat is contiguous with off-site habitat areas. The assessment and analysis shall emphasize identifying endangered, threatened, rare, and other special-status species; regionally and locally unique species; and sensitive natural communities, jurisdictional waters, and oak woodlands. Focused surveys shall be conducted as necessary to determine the presence of special-status species (e.g., focused sensitive plant or wildlife surveys). Focused surveys shall be conducted according to established CDFW or USFWS protocols, if available for the object species. Natural communities shall be mapped and identified according to floristic alliance-and/or association-based mapping protocols consistent with CDFW natural communities. A jurisdictional delineation may be required if there are signs of potentially regulated wetlands and non-wetland waters. A biological resources assessment report shall be prepared to characterize the biological resources on-site, analyze direct and indirect impacts on biological resources, and propose mitigation measures to offset those impacts. The report shall include site location, literature sources, methodology, timing of surveys, vegetation map, site photographs, and descriptions of biological resources on-site (e.g., observed and detected species as well as those species with potential to occur on-site).</p> | <p>1) A qualified biologist shall prepare a biological resources assessment report.</p> <p>2) Review of the biological resources assessment report.</p> | <p>1) Prior to or during the preparation of project-level environmental documents.</p> <p>2) Prior to the start of construction activities.</p> <p>3) Monitoring and reporting conducted during project review.</p> | County of Los Angeles/Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.5-2: If there is potential for direct impacts to special-status species with implementation of construction activities, the project-specific biological resources assessment report (as described in Mitigation Measure 3.5-1) shall include a mitigation measure requiring pre-construction surveys for special-status species and/or construction monitoring to ensure avoidance, relocation, or safe escape of special-status species from the construction activities, as appropriate. The mitigation measures shall also include consultation with and obtaining permits from USFWS or CDFW prior to construction, if required by FESA or CESA for listed endangered and threatened species. If special-status species are found to be nesting, brooding, denning, etc. on-site during the pre-construction survey or monitoring, construction activity shall be halted until offspring are weaned, fledged, etc. and are able to escape the site or be safely relocated to appropriate offsite habitat areas. Relocation of such species into areas of appropriate restored habitat would have the best chance of replacing/incrementing</p> | <p>1) General Contractor to consult with qualified biologist to verify compliance with requirements.</p> <p>2) Qualified biologist shall be on-site to conduct surveys and oversee implementation of measures.</p> <p>3) Qualified biologist to submit report documenting compliance with requirements.</p> | <p>1) Prior to construction of future projects.</p> <p>2) During future project construction activities.</p> <p>3) After construction of future projects.</p> | Applicant | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
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| populations that are lost due to habitat converted to development. Relocation to restored habitat areas shall be the preferred goal of this measure. A qualified biologist shall be on site to conduct surveys, to perform or oversee implementation of protective measures, and to determine when construction activity may resume. | | <p>_____</p> <p>4) Monitoring and reporting conducted before and during project construction.</p> | | | | | |
| Mitigation Measure 3.5-3: Prior to issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project applicant shall obtain a Clean Water Act Section 404 permit from U.S. Army Corps of Engineers, a Clean Water Act Section 401 certification from the Regional Water Quality Control Board, and a Streambed Alteration Agreement/ (LSAA) permit under Section 1602 of the California Fish and Game Code from California Department of Fish and Wildlife, where the project warrants.. | <p>1) Applicant to obtain listed permits, where required.</p> <p>2) Review and verification of listed permits, where required.</p> | <p>1-2) Prior to issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features.</p> <p>_____</p> <p>3) Monitoring and reporting conducted before project construction.</p> | Applicant | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
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| <p>Mitigation Measure 3.5-4: Proponents for individual projects facilitated by the 2045 CAP provisions shall analyze impacts on wildlife movement and corridors that may introduce new or additional barriers to wildlife dispersal or constrain existing wildlife corridors to future movement, or indirect impacts constraining future wildlife movement. Where projects may interfere with wildlife movement, alternative designs shall be included in the analysis to reduce wildlife movement impacts. Corridors, linkages, and pinch points shall not be entirely closed by any development, and partial mitigation shall be mandatory for project-specific impacts on wildlife corridors and wildlife nursery sites. This shall include provision of a minimum of half the corridor width. (The width shall be at least what is needed to remain connective for the top predators using the corridor.) Mitigation can include preservation by deed in perpetuity of other parts of the wildlife corridor connecting through the development area; it can include native landscaping to provide cover on the corridor. For nursery site impacts, mitigation shall include preservation by deed in perpetuity for another comparable nursery site of the same species</p> | <p>1) Ensure alternative designs and mitigation is included in the analysis where wildlife movement and corridors are impacted.</p> <p>2) Review of plans and specifications to ensure that project design includes alternative measures.</p> | <p>1) During project-specific environmental review.</p> <p>2) Prior to approval of future development projects.</p> <p>3) Monitoring and reporting conducted during project review.</p> | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.5-5: Proponents of projects resulting in the loss of oak woodlands shall mitigate with in-kind replacement habitat at a minimum of 1:1 mitigation ratio documented through a County-approved habitat mitigation plan. The plan shall include the number of replacement trees (or acreage and average density of woodland), location of replacement woodland, understory habitat components, sequencing for any phased tree removal, and performance standards for mitigation. The plan shall include monitoring for a minimum of five years, with annual reports submitted to the County.</p> <p>For oak woodlands impacts, project mitigation shall be consistent with recommendations in the County's Oak Woodland Conservation Management Plan and its 2014 Guide. If a project cannot be redesigned to avoid impacts to oak woodlands, an appropriate mitigation strategy would be developed by selecting from the Guide's list of recommended mitigation measures, prioritizing the acquisition of oak woodland habitat comparable to the habitat that as affected over the restoration of degraded off-site and in-lieu fees. A Mitigation Monitoring Plan consistent with the Guide's recommendations would be prepared and implemented.</p> | <p>1) Applicant shall retain an arborist to develop and submit the Mitigation Monitoring Plan to the County Department of Regional Planning.</p> <p>2) Review of plans and specifications to ensure that project design includes Mitigation Monitoring Plan.</p> <p>3) Field verification to ensure measures are implemented.</p> | <p>1) During project-specific environmental review.</p> <p>2) Prior to construction of future projects.</p> <p>3) During future project construction activities.</p> <p>4) Monitoring and reporting conducted during project review and construction</p> | Applicant | County of Los Angeles | | | |
| Cultural Resources | | | | | | | |
| <p>Mitigation Measure 3.6-1: Historic Resources Assessment. Prior to demolition or alteration of buildings and/or structures or the construction of aboveground infrastructure with potentially significant impacts on historic architectural resources, the project proponent shall retain an architectural historian meeting the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738-44739) (Qualified Architectural Historian) to conduct a historic resources assessment of affected properties. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a review of other pertinent archives and sources; a pedestrian field survey; recordation of all identified historic architectural resources on California Department of Parks and Recreation (DPR) 523 forms; evaluation of resources which may be eligible for listing in the California Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment for each future project facilitated by 2045 CAP measures and actions. If a historic architectural resource is found eligible by the Qualified Architectural Historian, then the Qualified Architectural Historian shall coordinate with the project proponent and the County to ensure the project is constructed in conformance with the Secretary of the Interior's Standards. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to historic resources assessments and Secretary of the Interior's Standards plan reviews).</p> | <p>1) Qualified architectural historian to submit historic resources assessment report of affected properties to the County Department of Regional Planning.</p> <p>2) Review plan and specifications to ensure project is constructed in conformance with the Secretary of the Interior's Standards.</p> <p>3) File report with the South Central Coastal Information Center.</p> | <p>1) During project-specific environmental review.</p> <p>2) Prior to demolition or alteration of buildings and/or structures or the construction of aboveground infrastructure with potentially significant impacts on historic architectural resources.</p> <p>3) After construction of future projects with potentially significant impacts on historic architectural resources.</p> <p>4) Monitoring and reporting conducted during project review and construction.</p> | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.6-2: Archaeological Resources Assessment. Prior to conducting construction activities that would involve ground disturbance, the project proponent shall retain an archaeologist meeting the minimum PQS set forth by the Secretary of the Interior (codified in 36 CFR Part 61; 48 FR 44738-44739) (Qualified Archaeologist) to conduct an archaeological resources assessment. The assessment shall include a records search at the South Central Coastal Information Center or review of a prior record search conducted within the previous one year; a Sacred Lands File search at the California Native American Heritage Commission (NAHC); ge archaeological review including a focused assessment of land use history and any available geotechnical data to assess the potential for</p> | <p>1) Applicant shall retain a Qualified archaeologist to prepare an archaeological resources assessment report and submit to the County Department of Regional Planning.</p> <p>2) Qualified archaeologist shall develop and submit a work plan to the County.</p> | <p>1) During project-specific environmental review.</p> <p>2) Prior to conducting construction activities that would involve ground disturbance.</p> | Applicant/County of Los Angeles | County of Los Angeles | | | |

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| subsurface archaeological resources; a pedestrian field survey in instances where ground surface is exposed; recordation of all identified archaeological resources on DPR 523 forms; evaluation of resources affected by the project for eligibility for listing in the California | 3) The County shall consult with local Native American tribes. | 3) Prior to the initiation of field work for any Extended Phase I or Phase II investigation. | | | | | |
| Register (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a]), and for local listing; and preparation of a technical report documenting the methods and results of the assessment. Resources that do not qualify as historical resources shall be considered by the Qualified Archaeologist for qualification as unique archaeological resources as defined in Public Resources Code Section 21083.2(g). The technical report also shall provide recommendations as to whether additional studies are warranted to further identify or evaluate archaeological resources (i.e., Extended Phase I boundary delineation, Phase II testing and evaluation) and if archaeological monitoring and Native American monitoring of ground disturbing activities is warranted (e.g., in areas where there is a higher potential to encounter buried resources). Prior to the initiation of field work for any Extended Phase I or Phase II investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation's objectives, goals, and methodology. When developing a work plan for Native American resources, the County shall consult with local Native American tribes. If archaeological/Native American monitoring is warranted, the Qualified Archaeologist shall determine the locations and duration of monitoring and reporting requirements. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to archaeological resources assessments, Extended Phase I and Phase II reports, and monitoring reports). | 4) File report(s) with the South Central Coastal Information Center. | 4) After construction of future projects with potentially significant impacts on archaeological resources. 5) Monitoring and reporting conducted during project review and construction. | | | | | |
| Mitigation Measure 3.6-3: Construction Worker Cultural Resources Sensitivity Training. For projects with ground-disturbing activities that may encounter potentially significant archaeological resources, the Qualified Archaeologist shall implement a cultural resources sensitivity training program. The Qualified Archaeologist, or its designee, shall instruct all construction personnel of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, applicable laws protecting archaeological resources, and confidentiality of discoveries. Native American monitor(s) shall be invited to participate in presenting tribal perspectives as part of the training curriculum. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. The project proponent or its contractors shall ensure construction personnel are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County. | 1) Qualified archaeologist shall prepare and conduct a cultural resources sensitivity training program. 2) Construction contractor/manager ensure construction personnel attend training. 3) Applicant shall retain documentation demonstrating attendance and provide it to the County. | 1-3) Prior to conducting construction activities that would involve ground-disturbance. 4) Monitoring and reporting conducted before project construction. | Applicant | County of Los Angeles | | | |
| Mitigation Measure 3.6-4: Archaeological Resources Discoveries. In the event archaeological resources are encountered during construction of a project, the project proponent shall cease all activity within 50 feet of the find shall cease. The discovery shall be evaluated for significance by the Qualified Archaeologist. When assessing significance and developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. If the Qualified Archaeologist determines that the resource is significant (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), the Qualified Archaeologist shall provide a method for avoidance and preservation in place, which shall be the preferred manner of mitigating impacts. If avoidance is infeasible, the Qualified Archaeologist shall develop a Phase III Archaeological Resources Data Recovery and Treatment Plan consistent with Mitigation Measure 3.6-5. The Qualified Archaeologist also shall determine, based on the initial assessment of the discovery, whether the 50-foot buffer may be reduced. All reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center (including but not limited to Extended Phase I, Phase II, and Phase III reports). | 1) Qualified archaeologist shall evaluate archeological discovery's significance. 2) Qualified archaeologist shall provide a method for avoidance and preservation in place or develop a Phase III Archaeological Resources Data Recovery and Treatment Plan consistent with Mitigation Measure 3.6-5. 3) File report(s) with the South Central Coastal Information Center. | 1-2) If archaeological resources are encountered during construction of a project. 3) After construction of future projects with archaeological resource discoveries. 4) Monitoring and reporting conducted during project construction. | Applicant/County of Los Angeles | County of Los Angeles | | | |
| Mitigation Measure 3.6-5: Treatment of Archaeological Resources. If the assessment conducted under Mitigation Measure 3.6-2 or Mitigation Measure 3.6-4 identifies significant archaeological resources (i.e., meets the definition for historical resource in CEQA Guidelines Section 15064.5[a] or for unique archaeological resource in Public Resources Code Section 21083.2[g]), then avoidance and preservation in place shall be the preferred manner of mitigating impacts. Preservation in place may be accomplished by, but is not | 1) Review plans and specification to ensure measures for avoidance and preservation in place, or those from the Phase III Archaeological Resources Data Recovery and Treatment Plan are included. | 1) During project-specific environmental review. | Applicant/County of Los Angeles | County of Los Angeles | | | |

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| limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance and preservation in place of significant archaeological resources is determined by the County to be infeasible, then the Qualified Archaeologist shall prepare a Phase III Archaeological Resources Data Recovery | 2) The County Department of Regional Planning shall consult with local Native American tribes. | 2) Prior to conducting construction activities that would involve ground disturbance. | | | | | |
| and Treatment Plan. The plan shall include: a detailed research design; justification for data recovery or other treatment methods depending on the nature of the resource's eligibility; excavation methodology; and, reporting and curation requirements. When developing treatment for resources that are Native American in origin, the County shall consult with local Native American tribes. All Phase III reports resulting from implementation of this measure shall be filed with the South Central Coastal Information Center. | 3) File report(s) with the South Central Coastal Information Center. | 3) After construction of future projects with potentially significant impacts on archaeological resources. 4) Monitoring and reporting conducted during project review and construction. | | | | | |
| <p>Mitigation Measure 3.6-6: Curation and Disposition of Cultural Materials. The project proponent shall arrange curation for all Native American archaeological materials, with the exception of funerary objects or grave goods (i.e., artifacts associated with Native American human remains). For significant Native American archaeological materials, the project proponent shall first consider repositories that are accredited by the American Association of Museums and that meet the standards outlined in 36 CFR 79.9. If a suitable accredited repository is not identified, then the project proponent shall consider nonaccredited repositories as long as they meet the minimum standards set forth by 36 CFR 79.9. If a suitable nonaccredited repository is not identified, then the project proponent shall donate the collection to a local California Native American tribe(s). Nonsignificant archeological materials shall be donated to a local California Native American tribe(s). If neither an accredited or nonaccredited repository or tribe accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes. Disposition of Native American human remains and associated funerary objects or grave goods shall be determined by the landowner in consultation with the County and the MLD.</p> <p>The project proponent shall curate all significant historic-period archaeological material, or portions thereof at the discretion of the Qualified Archaeologist, at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then the project proponent may curate it at a nonaccredited repository as long as it meets the minimum standards set forth in 36 CFR 79.9. If neither an accredited nor a nonaccredited repository accepts the collection, then the project proponent may offer the collection to a public, nonprofit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes.</p> | <p>1) Applicant shall arrange curation for all Native American archaeological materials, with the exception of funerary objects or grave goods.</p> <p>2) Landowner to consult with County Department of Regional Planning and the Native American Most Likely Descendant (MLD) regarding disposition of Native American human remains and associated funerary objects or grave goods.</p> <p>3) Applicant to consult with Qualified Archaeologist to curate all significant historic-period archaeological material, or portions thereof.</p> | <p>1-3) If archaeological resources are encountered during construction of a project.</p> <p>4) Monitoring and reporting conducted during project construction.</p> | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.6-7: Paleontological Resources Assessment and Monitoring. For projects facilitated by 2045 CAP measures and actions that involve ground disturbance, the project proponent shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for qualified professional paleontologist (Qualified Paleontologist) to prepare a paleontological resources assessment report prior to the start of construction activities. The report shall include methods and results of the paleontological resources assessment, monitoring requirements (including depths, frequency, and reporting), and maps that outline where monitoring is required. Monitoring shall follow SVP Guidelines: no monitoring of ground-disturbing activities within units of <i>Low Sensitivity or No Potential</i>; monitoring of all ground-disturbing activities (with depths specified) in units of <i>Low to High Significance</i>; and at all depths within units of <i>High Significance</i> unless the Qualified Paleontologist's report identifies previous disturbances or the use of construction methods which do not warrant monitoring; and monitoring at the initiation of excavation in units of <i>Undetermined Significance</i>. The report also shall stipulate whether screen washing is necessary to recover small specimens following SVP Guidelines and determine whether unique geologic features are present onsite. If monitoring is conducted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit it to the project proponent and the County.</p> | <p>1) Applicant shall retain a Qualified Paleontologist to prepare a paleontological resources assessment report and submit to the County.</p> <p>2) If monitoring is warranted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit to the Applicant and County.</p> | <p>1) Prior to conducting construction activities that would involve ground disturbance.</p> <p>2) After construction of future projects with potentially significant impacts on paleontological resources.</p> <p>3) Monitoring and reporting conducted during project construction.</p> | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.6-8: Paleontological Resources Sensitivity Training. Prior to the start of ground-disturbing activities for projects facilitated by 2045 CAP measures and actions with potentially significant impacts on paleontological resources, the Qualified Paleontologist or its designee shall conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers. Construction workers shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an</p> | <p>1) Qualified Paleontologist or its designee shall prepare and conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers.</p> | <p>1-3) Prior to conducting construction activities that would involve ground-disturbance.</p> | Applicant | County of Los Angeles | | | |

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| inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The project proponent shall ensure that construction workers are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County. | 2) Construction contractor/manager ensure construction personnel attend training. | | | | | | |
| | 3) Applicant shall retain documentation demonstrating attendance and provide it to the County. | 4) Monitoring and reporting conducted before project construction. | | | | | |
| <p>Mitigation Measure 3.6-9: Paleontological Discoveries. If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area determined by the paleontological monitor shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading/excavation contractor shall assist, where feasible, in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes.</p> <p>If construction workers discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described earlier in this measure.</p> <p>Any salvage reports resulting from implementation of this measure shall be filed with the Natural History Museum of Los Angeles County.</p> | <p>1) Paleontological monitor shall provide direction to Construction contractor/manager to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil. Paleontological monitor shall establish an appropriate buffer area around the find where construction activities shall not be allowed to continue.</p> <p>2) Qualified Paleontologist shall implement a paleontological salvage program.</p> <p>3) Construction contractor/manager shall cease work at discovery location in a 50-foot radius until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment.</p> <p>4) File report with the Natural History Museum of Los Angeles County.</p> | <p>1) If a potential fossil is encountered during construction of a project.</p> <p>2) If a fossil is determined to be significant.</p> <p>3) If construction workers discover any potential fossils during construction while the paleontological monitor is not present.</p> <p>4) After construction of future projects with potentially significant impacts on paleontological resources.</p> <p>5) Monitoring and reporting conducted during and after project construction.</p> | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.6-10: Human Remains Discoveries. If human remains are encountered, then the project proponent or its contractor shall immediately halt work within 50 feet of the discovery and contact the County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, which require that no further disturbance shall occur until the County Coroner has made the necessary findings as to the remains' origin and disposition. If the County Coroner determines that the remains are Native American, then the County Coroner will notify the NAHC within 24 hours in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98. The NAHC shall then identify the person(s) thought to be the MLD. The MLD may, with the permission of the land owner, or their authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. The project proponent, County, and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.</p> <p>Until the project proponent, the County, and the landowner have conferred with the MLD, the contractor shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected according to generally accepted cultural or archaeological standards or practices (e.g., the NAHC's <i>A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods</i> [NAHC 2022], which reiterates statutory requirements), and that further activities take into account the possibility of multiple burials.</p> <p>If the NAHC is unable to identify an MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the</p> | <p>1) Project proponent or its Construction contractor/manager shall immediately halt work within 50 feet of the discovery and contact the County Coroner.</p> <p>2) Project proponent, County, and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.</p> <p>3) Construction contractor/ manager shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected.</p> <p>4) In the absence of an MLD, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.</p> | <p>1-4) If human remains are encountered during construction of a project.</p> <p>5) Monitoring and reporting conducted during project construction.</p> | Applicant | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
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| mediation provided for in Public Resources Code Section 5097.94(k), if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall enter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance. | | | | | | | |
| Hazards and Hazardous Materials | | | | | | | |
| <p>Mitigation Measure 3.10-2: The County shall require applicants of solar PV installation projects that include the use of CdTe modules to dispose of panels or recycle panels in accordance with current local, state, and federal regulations. Broken and end-of-project-life PV modules, materials, and components shall be:</p> <ul style="list-style-type: none"> • Stored on-site in a manner that complies with federal and state laws until recycling or disposal actions can be taken. • Stored on-site no longer than allowed by federal and state laws. • Recycled in accordance with federal and state laws applicable at that time. | <ol style="list-style-type: none"> 1) Review plans and specifications to ensure disposal of panels or recycle of panels in accordance with current local, state, and federal regulations is included. 2) Field verification to ensure measures are implemented. | <ol style="list-style-type: none"> 1) Prior to construction of future projects. 2) During project construction activities. 3) Monitoring and reporting conducted during project review and construction. | County of Los Angeles/Applicant | County of Los Angeles | | | |
| Noise | | | | | | | |
| <p>Mitigation Measure 3.13-1: Construction Noise. Construction activities associated with new projects facilitated by the 2045 CAP that occur within 500 feet of noise-sensitive receptors (i.e., residences, parks, schools, historic sites, cemeteries, and recreation areas) shall be evaluated by the project applicant for noise impacts that would result in a 5 dBA increase over existing ambient noise levels at any sensitive receptor. Mitigation measures such as installing temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures; equipping construction equipment with more effective mufflers, sound-insulating hoods or enclosures, vibration dampers, and other Best Available Control Technology (BACT); and reducing non-essential idling of construction equipment to no more than five minutes shall be incorporated into construction activities to reduce construction-related noise.</p> | <ol style="list-style-type: none"> 1-2) Review plans and specifications to ensure that measures to reduce noise are included. 3) Construction contractor/manager shall submit a letter to the County verifying full compliance with all requirements. 4) Field Verification to ensure measures are implemented. | <ol style="list-style-type: none"> 1) Prior to future development project approval. 2) Prior to construction of future projects. 3) During future project construction. 4) Monitoring and reporting conducted during project review and construction. | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.13-2: Stationary-Source Noise. For any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) exposed to project stationary-source noise levels in excess of applicable standards in the Los Angeles County Noise Ordinance, the project applicant shall submit an acoustic analysis prior to project approval. The acoustic analysis shall identify site design features (e.g., setbacks, berms, parapets, equipment enclosures, equipment mufflers, sound walls, or other similar noise control device or noise barrier) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the County's Noise Compatibility Criteria, the California Building Code, and the California Noise Insulation Standards (Title 24 of the California Code of Regulations).</p> | <ol style="list-style-type: none"> 1) Applicant shall submit an acoustic analysis to the County. 2) Review plans and specifications to ensure that project design includes features to reduce noise. 3) Field Verification to ensure measures are implemented. | <ol style="list-style-type: none"> 1) Prior to future development project approval. 2) Prior to construction of future projects. 3) During future project construction. 4) Monitoring and reporting conducted during project review and construction. | Applicant | County of Los Angeles | | | |
| <p>Mitigation Measure 3.13-3: Construction Vibration. Individual projects that use vibration-intensive construction equipment, such as pile drivers, jackhammers, and vibratory rollers near vibration-sensitive receptors shall be evaluated by the applicant for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses (i.e., exceed the County's standard of 0.01 inches per second (in/sec) vibration velocity [within the range of 1 to 100 Hz frequency]), additional requirements shall be implemented during construction, such as the use of less-vibration-intensive equipment or vibration-reduction construction techniques or strategies (e.g., drilled piles to eliminate the use of a vibration-intensive pile driver, increased setback distances).</p> | <ol style="list-style-type: none"> 1) Applicant shall complete an analysis for potential vibration impacts and submit to the County. 2) Review plans and specifications to ensure project construction includes measures to reduce vibration impacts. 3) Field Verification to ensure measures are implemented. | <ol style="list-style-type: none"> 1) Prior to future development project approval for future projects that include vibration-intensive construction equipment. 2) Prior to construction of future projects. 3) During future project construction. 4) Monitoring and reporting conducted during project review and construction. | Applicant/County of Los Angeles | County of Los Angeles | | | |
| <p>Mitigation Measure 3.13-4: New Development Near Railroad Tracks. New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction</p> | <ol style="list-style-type: none"> 1) Applicant shall retain an acoustical engineer to conduct an acoustic analysis and submit to the County. 2) Review plans and specifications to ensure project design includes features to | <ol style="list-style-type: none"> 1) Prior to future development project approval for projects that occur within 200 feet of a railroad track. 2) Prior to construction of future projects. | Applicant | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
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| improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 in/sec RMS for residential uses. | keep vibration impacts below acceptable levels. | 3) Monitoring and reporting conducted during project review. | | | | | |
| Transportation | | | | | | | |
| <p>Mitigation Measure 3.15-1, Traffic Control Plan: The County shall require project applicants and construction contractors to coordinate with relevant County departments, transit providers, and emergency service providers to develop a traffic control plan to reduce the impacts of construction traffic on transit service, roadway operations, emergency responders, pedestrian and bicycle facilities, and public safety in the surrounding area. (A traffic control plan may not be required for minor construction activities.) The project applicant shall be responsible for monitoring to ensure that the plan is effectively implemented by the construction contractor(s). Measures that may be employed throughout the course of the construction period include, but are not limited, to the following.</p> <ul style="list-style-type: none"> • Provide advance notice of lane and sidewalk closures, durations, and alternative routes to emergency service providers, motorists, bicyclists, and pedestrians. • Provide clearly marked pedestrian detours if any sidewalk or pedestrian walkway closures are necessary. • Provide clearly marked bicycle detours if heavily used bicycle routes must be closed, or if bicyclist safety may otherwise be comprised. • Provide crossing-guards and/or flag persons as needed to avoid traffic conflicts and ensure pedestrian and bicyclist safety. • Locate all stationary equipment as far as possible from areas used heavily by vehicles, bicyclists, and pedestrians. • Use nonskid traffic plates over open trenches to reduce hazards. • Implement traffic control measures to reduce vehicle travel delays through construction zones. • Maintain acceptable response times and performance objectives for emergency response services. • Avoid routing construction traffic through residential areas to the extent feasible. • Prohibit mobilization and demobilization of heavy construction equipment during AM and PM peak traffic hours. • Maintain access for driveways and private roads outside the immediate construction zone by using steel plates or temporary backfill, as necessary. • Provide designated areas for construction worker parking wherever feasible to reduce use of parking on streets or in city center areas. | <p>1) Applicant and/or its Construction contractor/manager shall develop a construction traffic control plan.</p> <p>2) Review plans and specifications to ensure that project includes traffic control plan.</p> <p>3) Applicant monitor to ensure measures are implemented by Construction contractor/manager.</p> | <p>1) Prior to future development project approval.</p> <p>2) Prior to construction of future projects.</p> <p>3) During future project construction.</p> <p>4) Monitoring and reporting conducted during project review and construction.</p> | County of Los Angeles/Applicant | County of Los Angeles | | | |
| Tribal Cultural Resources | | | | | | | |
| <p>Mitigation Measure 3.16-1: AB 52 Consultation. Consistent with AB 52, before the release of a negative declaration, mitigated negative declaration, or EIR, the County shall initiate consultation within 14 days of a decision to undertake a project facilitated by 2045 CAP measures or actions. The County shall provide formal notification to the designated contact of, or a tribal representative of, each traditionally and culturally affiliated California Native American tribe that has requested notice. The County shall begin the consultation process within 30 days after receiving a California Native American tribe's request for consultation. The purpose of the consultation shall be to identify sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that meet the definition of tribal cultural resources provided in CEQA Section 21074(a)(1) or Section 21074(a)(2). In addition, the California Native American tribe may request consultation regarding the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation.</p> <p>If tribal cultural resources are identified, the County shall implement mitigation measures that could avoid or substantially lessen significant impacts on such resources, including but not limited to the measures recommended in Public Resources Code Section 21084.3, or shall implement alternatives that would avoid significant impacts on the tribal cultural</p> | <p>1) County shall initiate AB 52 Consultation.</p> <p>2) County shall begin the consultation process.</p> <p>3) County shall implement measures or alternatives that could avoid or substantially lessen significant impacts on tribal cultural resources, in consultation with the California Native American tribe.</p> | <p>1) Within 14 days of decision to undertake a future project.</p> <p>2) Within 30 days after receiving a California Native American tribe's request for consultation.</p> <p>3) If tribal cultural resources are identified.</p> <p>4) Monitoring and reporting conducted during project review.</p> | County of Los Angeles | County of Los Angeles | | | |

| Mitigation Measure | Mitigation Method | Timing of Implementation | Implementation Responsibility | Monitoring and Reporting Agency | Verification of Compliance | | |
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| resources. Such measures shall be implemented in consultation with the California Native American tribe. | | | | | | | |
| Wildfire | | | | | | | |
| <p>Mitigation Measure 3.18-3: Fire Safety During Construction and Operation. Future applicants and/or their contractors shall prepare and implement project-specific fire protection plans for projects located in the VHFHSZ to ensure that wildfire-related hazards are not exacerbated by projects facilitated by the 2045 CAP measures or goals. The applicant shall prepare and submit a fire protection plan to the County for review and approval at least 60 days before the start of construction activities. The fire protection plan shall include or require, but not be limited to, the following measures along with Fire Code compliance, as applicable to address construction and operation:</p> <ul style="list-style-type: none"> • A training module within the pre-construction worker training (e.g., Worker Environmental Awareness training, safety training, fire equipment and procedures) on the specifics of the approved plan for all construction crew members before the start of construction. • List project site roles and responsibilities and identify appropriate emergency notification procedures and site-specific emergency response and evacuation measures and routes that would be followed during emergency situations. All construction vehicles shall have fire suppression equipment. • Instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site. • Protocol for the project contractor and/or the applicant to perform visual inspections to ensure that all ignition risks are reduced or eliminated before leaving the worksite. Identify fire safety and prevention measures for project-specific infrastructure that can ignite fires, such as power lines, battery storage facilities, and composting facilities. | <p>1) Applicant and/or its Construction contractor/manager shall prepare and submit a fire protection plan to the County.</p> <p>2) Review plans and specifications to ensure project includes fire protection measures.</p> | <p>1) At least 60 days before the start of construction activities.</p> <p>2) Prior to future development project approval for projects located in the VHFHSZ, and prior to construction of future projects</p> <hr/> <p>3) Monitoring and reporting conducted during project review.</p> | Applicant | County of Los Angeles | | | |

**SUMMARY OF PROCEEDINGS
REGIONAL PLANNING COMMISSION
LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN
PROJECT NO. 2019-002015-(1-5)
ADVANCE PLANNING NO. RPPL2019003630
ENVIRONMENTAL ASSESSMENT NO. RPPL2019003635**

November 15, 2023 Regional Planning Commission Hearing

Staff presented the Los Angeles County 2045 Climate Action Plan (2045 CAP) at the November 15, 2023 public hearing. Staff provided an overview of the 2045 CAP and accompanying voluntary CEQA Streamlining Checklist, General Plan consistency, and summarized outreach and engagement efforts made throughout the development of the project.

Discussion

Nine individuals testified at the hearing (two in-person, seven online) and one person who signed up was unable to provide a testimony due to audio issues.

Commissioners Hastings and O'Connor disclosed that they received phone calls from labor and building industry groups prior to the hearing and that the statements made during the calls were consistent with the public comment letters submitted by the groups.

Representatives from the Las Virgenes Homeowners Federation, Endangered Habitats League, Santa Clarita Organization for Planning and the Environment, and an individual testified in support of the approval of the 2045 CAP. A representative of the Acton Town Council expressed concerns about Measure T5 and how it will impact a local intersection and requested an action be added to ban new gas stations. Representatives from the Building Industry Association, BizFed, Rebuild SoCal Partnership, and an individual requested a one year pause to the project and for the County to conduct an economic impact analysis of the 2045 CAP. Testimonies from these representatives also included concerns with the performance objective of 300 jobs per acre.

The Commission had questions on decarbonization and grid capacity. Staff responded that based on discussions with utility providers, energy providers are already planning for expansion of electrical grid infrastructure. Staff also responded that with the decarbonization of the freight vehicles, the County already require decarbonization of vehicles used in industrial warehouses through conditions of approval for discretionary permits and the State of California passed the Advanced Clean Fleets Regulation that will require the sale of zero emissions medium- and heavy-duty vehicles by 2036. Staff explained that the 2045 CAP will demonstrate that the County is planning for

infrastructure upgrades and give the County an advantage when applying for competitive funding opportunities.

The Commission asked about the performance objective of 300 jobs per acre in the 2045 CAP. Staff clarified to the Commission that the performance objective of achieving a job density of 300 jobs per acre by 2030 is a goal to be achieved by the County in suitable locations such as transit-oriented districts where high density housing is planned to reduce commuter distances. Development projects are not required to comply with this performance goal when utilizing the 2045 CAP CEQA Streamlining Checklist. The goal of the performance objective is to ensure that housing and jobs are located close together and the County's community and area plan planning processes will consider the right balance to help to achieve this performance objective. Staff also responded that an economic impact analysis will not be conducted since the 2045 CAP is consistent with the General Plan Economic Development Element. Staff also reiterated that the 2045 CAP is consistent with the County's Housing Element and fulfills Program Number 3 in the Housing Element, which explicitly directs the update of the CAP.

Vote

The Commission unanimously voted to recommend to the Board of Supervisors the certification of the Final PEIR, along with the adoption of the required Findings of Fact, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program; and the approval of the Project.

| 2045 Climate Action Plan | OurCounty Sustainability Plan |
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| <p><u>Measure ES1</u> Develop a Sunset Strategy for All Oil and Gas Operations: Develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities and develop a strategy for carbon removal.</p> | <p><u>Action 3</u> Conduct an inventory to identify all abandoned/idled oil and gas infrastructure in LA County, and work with DOGGR to develop and implement a closure plan, prioritized by condition and proximity to sensitive populations, that includes identification of potential funding sources.</p> <p><u>Action 84</u> Collaborate with the City of Los Angeles and other cities to develop a sunset strategy for all oil and gas operations that prioritizes disproportionately affected communities.</p> |
| <p><u>Measure ES4</u> Increase Energy Resilience: Expand energy storage and microgrids throughout the community and for County operations.</p> | <p><u>Action 26</u> Develop minimum requirements and best practices for amenities, programming, and accessibility of cooling centers.</p> <p><u>Action 86</u> Develop a publicly-accessible community energy map that identifies opportunities for deploying distributed energy resources and microgrids in order to improve energy resiliency in disadvantaged communities.</p> |
| <p><u>Measure T1</u> Increase Density Near High-Quality Transit Areas: Increase housing opportunities that are affordable and near transit, to reduce VMT.</p> | <p><u>Action 49</u> Expand the number and extent of transit oriented communities while ensuring that vital public amenities such as parks and active transportation infrastructure are included.</p> |
| <p><u>Measure T3</u> Expand Bicycle and Pedestrian Network to Serve Residential, Employment, and Recreational Trips: Travel options that serve a variety of land uses and trip purposes can help shift some trips away from single-occupancy vehicles.</p> | <p><u>Action 30</u> Build shade structures at major transit stops, such as those identified in Metro's Active Transportation Strategic Plan, prioritizing communities with high heat vulnerability.</p> |
| <p><u>Measure T4</u> Broaden Options for Transit, Active Transportation, and Alternative Modes of Transportation: Transit service, micro mobility services (such as bike-share, scooter-share, and</p> | <p><u>Action 98</u> Install bus-only lanes and signal prioritization along major thoroughfares, and work with transit agencies and neighboring jurisdictions to plan and install full bus rapid transit infrastructure along priority corridors, as appropriate.</p> |

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| <p>drone deliveries), and access to these transportation options can help reduce VMT</p> | <p><u>Action 100</u> Offer free transit passes for students, youth, seniors, disabled, and low-income populations.</p> <p><u>Action 103</u> Evaluate and implement demand-based priced parking at County facilities and on County streets where appropriate.</p> |
| <p><u>Measure T5</u> Limit and Remove Parking Minimums: Parking strategies such as parking maximums, unbundling parking, or market-price parking can help reduce VMT.</p> | <p><u>Action 99</u> Develop and implement a comprehensive parking reform strategy, which should include, but not be limited to: elimination of minimum parking requirements for all new residential units, establishment of parking maximums within half a mile of high-quality transit stops, creation and expansion of parking benefit districts, and incentives for developers to provide less than maximum allowable parking.</p> |
| <p><u>Measure T6</u> Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales: Increase unincorporated Los Angeles County’s ZEV market share and vehicle penetration to the maximum extent feasible to replace internal combustion engine vehicles. Set targets for reducing total gasoline and diesel vehicle fuel sales.</p> | <p><u>Action 91</u> Streamline permitting and construction of zero-emission vehicle infrastructure.</p> <p><u>Action 92</u> Install electric vehicle (EV) chargers at County facilities and properties for public, employee, and fleet use, prioritizing locations in disadvantaged communities.</p> |
| <p><u>Measure T7</u> Electrify County Fleet Vehicles: Electrify the County bus, shuttle, and light-duty vehicle fleets.</p> | <p><u>Action 93</u> Revise and regularly update the County's fleet policy to require zero-emission vehicles or better whenever available and operationally feasible.</p> <p><u>Action 94</u> Convert Sheriff's Department (LASD) fleet to zero emission by partnering with vehicle manufacturers to develop a zero-emission pursuit vehicle and transport bus.</p> |
| <p><u>Measure T8</u> Accelerate Freight Decarbonization: Incentivize and implement freight decarbonization</p> | <p><u>Action 10</u> Partner with local and regional agencies along key freight corridors, as well as with private freight movers, to implement “green goods</p> |

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| <p>technologies, specifically focusing on charging infrastructure.</p> | <p>movement” technologies, such as medium- and heavy-duty zero emission vehicle infrastructure, through initiatives like Metro's I-710 Corridor Project or use of County properties for refueling.</p> <p><u>Action 95</u> Partner with Los Angeles Fire Department (LAFD) and equipment manufacturers to pilot a zero-emission fire engine.</p> |
| <p><u>Measure E1</u> Decarbonize Existing Buildings: As the carbon intensity of grid-supplied electricity decreases, decarbonization of the electrical grid must be combined with building decarbonization, shifting the energy load from fossil fuels to carbon-free energy sources while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face. This measure aims to decarbonize applicable existing buildings. A primary alternative to fossil natural gas is renewable electricity supplied by CPA. Biomethane is another alternative to fossil natural gas; however, existing opportunities for widespread use of biomethane are currently limited. The use of other zero-GHG-emission fuel sources for buildings will also be considered.</p> | <p><u>Action 85</u> Collaborate with the City of Los Angeles, Santa Monica, and other members of the Building Decarbonization Coalition to develop building energy and emissions performance standards that put the County on a path towards building decarbonization.</p> |
| <p><u>Measure E2</u> Decarbonize New Development: This measure aims to decarbonize all applicable new buildings, while taking into consideration the varying climate, geography, infrastructure, and sole-source dependency challenges that rural communities and unique industries may face.</p> | <p><u>Action 31</u> Adopt CALGreen Tier 1 green building standards and identify which Tier 2 standards could be adopted as code amendments.</p> |
| <p><u>Measure E4</u> Improve Energy Efficiency of Existing Buildings: Retrofit existing building stock to reduce overall unincorporated Los Angeles County energy use.</p> | <p><u>Action 117</u> Adopt an energy and water efficiency ordinance for existing buildings, requiring all privately owned buildings over 20,000 square feet to benchmark and report their energy and water use, and demonstrate their pathway to energy and water efficiency.</p> <p><u>Action 118</u> Expand and enhance the energy efficiency programs offered by the Southern California Regional Energy Network (SoCalREN).</p> |

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| <p><u>Measure E5</u> Increase Use of Recycled Water and Graywater Systems: Increasing the use of alternative water sources (e.g., recycled water, graywater, indirect potable reuse) reduces the demand for water sources with higher energy and carbon intensities (e.g., imported water, groundwater).</p> | <p><u>Action 37</u> Support efforts to maximize sustainable yield from local groundwater basins.</p> <p><u>Action 40</u> Reduce barriers and increase accessibility to alternative water sources (rainwater, greywater, stormwater, and recycled water), including incentives for residential and commercial/small business greywater systems and streamlining permitting pathways.</p> <p><u>Action 114</u> Develop a Net Zero Water Ordinance for new development.</p> |
| <p><u>Measure E6</u> Reduce Indoor and Outdoor Water Consumption: Reducing indoor and outdoor water consumption is essential as the State experiences longer and more severe droughts. Not only will water conservation improve regional resiliency, but it will also reduce GHG emissions through the reduction of energy consumption associated with the processing, treatment, and conveyance of water and wastewater.</p> | <p><u>Action 18</u> Complete an assessment of the region's drinking water systems to identify resiliency to drought and shocks, as well as risk of water quality issues due to aging infrastructure, deferred maintenance, etc.</p> <p><u>Action 115</u> Adopt building code changes that improve water efficiency and reduce indoor and outdoor water use above current CALGreen standards.</p> <p><u>Action 116</u> Establish pilot programs for smart metering or sub-metering indoor and outdoor water use at County facilities.</p> |
| <p><u>Measure W1</u> Institutionalize Sustainable Waste Systems and Practices: Undertake actions that result in sustainable waste systems. Responsible and sustainable waste practices are learned behaviors that the County can facilitate through outreach, education, and mandates. Increase diversion of recyclable materials and organics from landfills through ordinances, service improvements, education and outreach, and promotion of product stewardship and markets for material reuse. An increased diversion rate indirectly</p> | <p><u>Action 107</u> In collaboration with the City of Los Angeles, develop and implement an equitable strategy to phase out single use plastics, including in County contracts and facilities.</p> <p><u>Action 108</u> Adopt and advocate for producer and manufacturer responsibility requirements.</p> <p><u>Action 123</u></p> |

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| <p>reduces the demand for virgin materials, which reduces the life-cycle carbon intensity of any resulting products. Through action taken at the County level, waste-conscious habits and thoughtful consumption can become the default.</p> | <p>Increase the diversion requirements in the County’s Construction and Demolition Debris Recycling and Reuse Ordinance, encourage the use of recycled-content materials in construction projects, and incentivize use of recycled materials in public art projects funded or commissioned by the County.</p> |
| <p><u>Measure W2</u> Increase Organic Waste Diversion: Provide services for diverting yard waste, food scraps, and compostable paper from landfills to beneficial uses, including compost, food rescue, and energy production.</p> | <p><u>Action 120</u> Establish guidelines for large-quantity food waste or green waste generators to perform on-site composting, mulching, or anaerobic digestion, and develop a marketing plan for the product.</p> <p><u>Action 121</u> Promote and communicate source separation, organic waste collection requirements, food waste reduction and donation, local organic waste recycling programs, and conduct targeted, sector-based educational campaigns.</p> <p><u>Action 128</u> Enhance and expand the County's existing Food DROP food donation and redistribution program to divert edible food from landfills and make available to food insecure communities.</p> |
| <p><u>Measure A1</u> Conserve Forests, Woodlands, Shrublands, Grasslands, Desert, and other Carbon-Sequestering Wildlands and Working Lands: Preserve, conserve, and restore agricultural lands, working lands, rangelands, forest lands, wetlands, and other wildlands in unincorporated Los Angeles County.</p> | <p><u>Action 47</u> Support the preservation of agricultural and working lands, including rangelands, by limiting the conversion of these lands to residential or other uses through tools such as the creation of agricultural easements, particularly within high climate-hazard areas and SEAs.</p> <p><u>Action 67</u> Develop a wildlife connectivity ordinance.</p> |
| <p><u>Measure A3</u> Expand Unincorporated Los Angeles County’s Tree Canopy and Green Spaces: Create an Urban Forest Management Plan to plant trees, increase unincorporated Los Angeles County’s tree canopy cover, add green space, and convert impervious surfaces. Focus tree planting on frontline communities with insufficient tree cover and green spaces.</p> | <p><u>Action 43</u> Create and implement a community-informed Urban Forest Management Plan that incorporates equitable urban forest practices, identifies County funding sources, and prioritizes:</p> <ul style="list-style-type: none"> • Tree- and park-poor communities; • Climate and watershed-appropriate and drought/pest-resistant vegetation; |

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| | <ul style="list-style-type: none">• Appropriate watering, maintenance, and disposal practices;• Shading; and• Biodiversity. <p><u>Action 71</u> Increase the number of native plants, trees, and pollinator/bird-friendly landscapes on public properties for education and habitat connectivity.</p> |
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Celia Zavala, Executive Officer-
Clerk of the Board of Supervisors
383 Kenneth Hahn Hall of Administration
Los Angeles, California 90012

NOTICE OF PUBLIC HEARING CONCERNING
LOS ANGELES COUNTY 2045 CLIMATE ACTION PLAN

PROJECT NO. 2019-002015-(1-5)
ADVANCE PLANNING NO. RPPL2019003630
ENVIRONMENTAL ASSESSMENT NO. RPPL2019003635
STATE CLEARINGHOUSE NO. 2021120568

Notice is hereby given that the Board of Supervisors will conduct a public hearing on the matter referenced above on **Tuesday, March 12, 2024 at 9:30 a.m.**, in Room 381B of the Kenneth Hahn Hall of Administration, 500 West Temple Street, Los Angeles, California 90012. Interested persons will be given an opportunity to testify. **Please note that due to the COVID-19 pandemic, a virtual public hearing may be held.** Please visit <http://bos.lacounty.gov/Board-Meeting/Board-Agendas> for details on how to listen to the virtual meeting and/or address the Board. Written comments may be submitted to the address above, attention: Public Hearing Section or e-mailed to PublicHearing@bos.lacounty.gov with the Project No. in the "Subject". Project status can be obtained online at: <http://bos.lacounty.gov/Board-Meeting/Public-Hearings> or you may also call (213) 974-1426. If the final decision on this proposal is challenged in court, challenges may be limited to issues raised before or at the public hearing.

Location: Unincorporated areas of Los Angeles County

General Description of Proposal:

The proposed Los Angeles County 2045 Climate Action Plan (2045 CAP) is the County's plan toward meeting greenhouse gas (GHG) emissions reduction targets for unincorporated Los Angeles County by the years of 2030, 2035, and 2045. The 2045 CAP is an implementing component of the Air Quality Element. It was developed with the goal of implementing the GHG emissions reduction policies of the General Plan Air Quality Element and aligning with statewide GHG emissions reduction targets. The project will amend the County's General Plan Air Quality Element goals, policies, and implementation programs and replace the Community Climate Action Plan with the 2045 CAP. The Board will also consider the certification of the Program Environmental Impact Report (PEIR), which includes the Final PEIR and Recirculated Draft PEIR; and adoption of the CEQA Findings of Fact, Statement of Overriding Considerations, and County Mitigation Monitoring and Reporting Program.

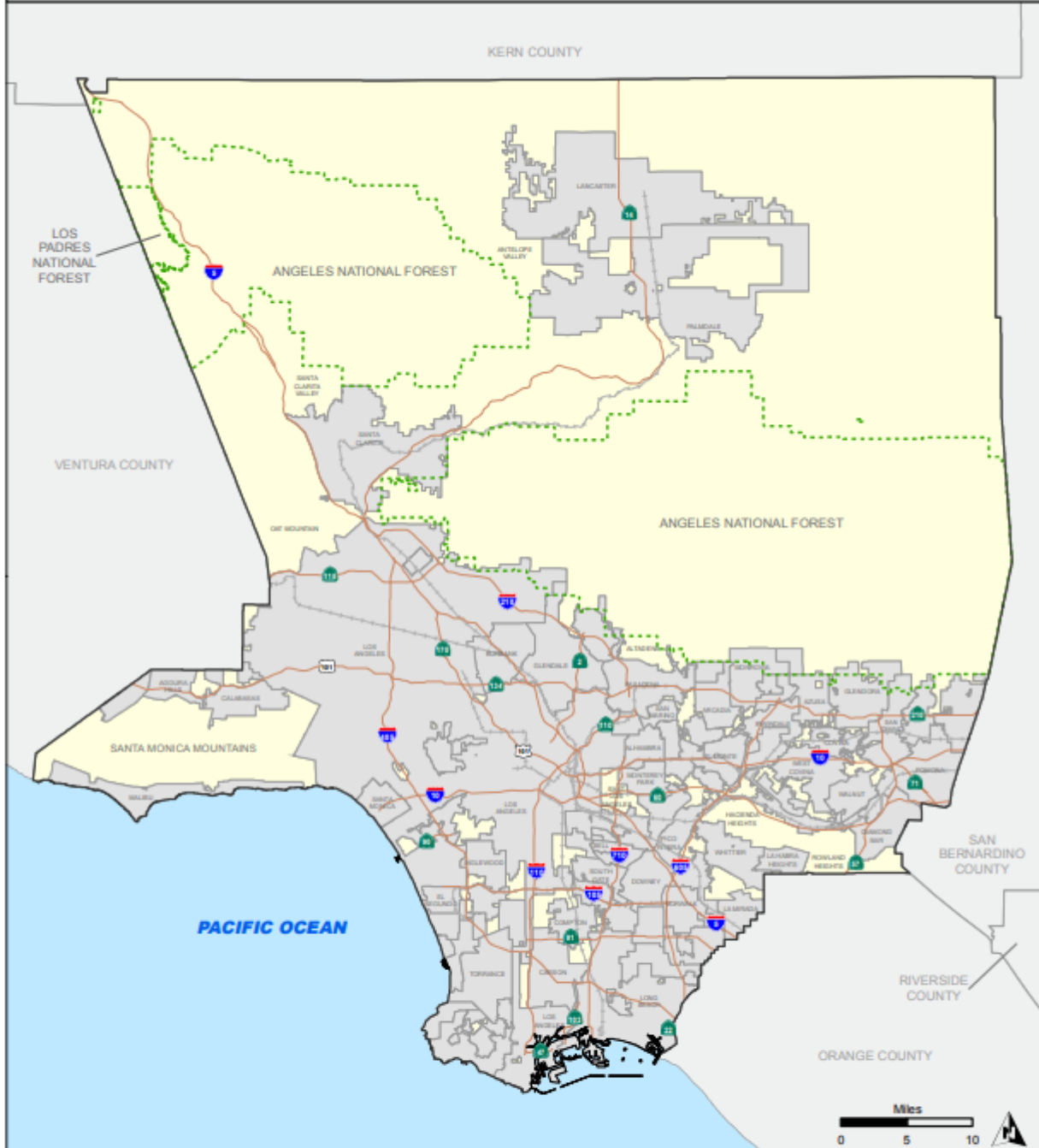
Contact the Department of Regional Planning, **Thuy Hua at (213) 974-6461** between 7:30 a.m. and 5:30 p.m., Monday through Thursday (office is closed Fridays) or thua@planning.lacounty.gov directly for questions or additional information. Selected materials are available at <https://planning.lacounty.gov/long-range-planning/climate-action-plan/documents/>. **Si necesita más información en Español, por favor llame al (213) 974-6427.**

If you need reasonable accommodations, such as assistive listening devices, agenda in Braille, interpreters, disability-related accommodations or other auxiliary aids, please contact the Executive Office of the Board at (213) 974-1411 or (213) 974-1707 (TTY), Monday through Friday from 8:00 a.m. to 5:00 p.m., at least three business days prior to the Board meeting. Later requests will be accommodated to the extent feasible. Máquinas de traducción están disponibles o si necesita intérprete para las juntas del Condado de Los Angeles, por favor llame al (213) 974-1426, de lunes a viernes de 8:00 a.m. a 5:00 p.m., con tres días de anticipación.

CELIA ZAVALA
EXECUTIVE OFFICER OF THE
BOARD OF SUPERVISORS

Los Angeles County Unincorporated Areas

Figure 4.2



- Unincorporated Areas
- Cities

Source: Department of Regional Planning, May 2014